

# Workshop on Energy Efficiency De-Risking Instruments in India: The Role of Energy Savings Insurance and other Instruments

The Claridges Hotel, New Delhi, India

Tuesday 20 February 2024

## Summary Record

### I. BACKGROUND

The full day workshop aimed to delve into India's commitment to enhance energy efficiency, and explore the potential for expanding energy efficiency investments, drawing insights from successful past programs, such as the National Mission for Enhanced Energy Efficiency, and emphasizing the role of de-risking instruments, including the Energy Savings Insurance (ESI) model. Stakeholders discussed market conditions, barriers, and entry points to accelerate the adoption of innovative energy efficiency technologies and measures, especially in sectors like small and medium enterprises (SMEs), aligning with global efforts for a sustainable and low-carbon future.

The objective of the workshop was to:

- Discuss the role of energy efficiency de-risking instruments in improving access to energy efficiency finance in India.
- Reflect upon lessons from finance and insurance industry experts on the design and implementation of energy efficiency de-risking instruments.
- Delve into approaches for introducing and maximizing the potential of an ESI scheme in India.
- Provide a comprehensive backdrop for the ESI market in India, outlining the present landscape and subsequently delving into a thorough examination of the market dynamics.
- Formulating the strategy to pilot ESI in the Indian market and potential next steps.

### II. WORKSHOP AGENDA

The workshop agenda is attached as Annexure 1 in this document.

### III. WORKSHOP PROCEEDINGS

#### A. Inaugural session

**Geraldine Ang, Team Lead CEFIM, OECD** in her address, expressed gratitude to attendees and acknowledged the collaboration with the Indian Bureau of Energy Efficiency and the Asian Development Bank (ADB) in organizing the workshop. Geraldine emphasized the importance of unlocking energy efficiency financing in India, thanking the leaders such as Abhay Bakre, Director General and his team at the Indian Bureau of Energy Efficiency (BEE), as well as Christine Engstrom's, Senior Director, ADB for their collaboration. She highlighted the OECD's Clean Energy Finance and Investment Mobilisation (CEFIM) Programme and its efforts to support clean energy finance in emerging markets like India. Geraldine also mentioned the significance of energy-saving insurance models as a tool for investment in energy efficiency, citing previous workshops and collaborations with stakeholders in India and Indonesia. She stressed the need for continued dialogue and engagement among public and private stakeholders to develop and implement energy-saving insurance initiatives effectively.

**Christine Engstrom, Senior Director Sector Group Finance, ADB** in her address extended greetings to distinguished guests at the workshop and highlighted the significance of energy-saving insurance and other tools in supporting investments in energy efficiency. Engstrom expressed gratitude for the collaboration with the BEE, and the OECD in organizing the event, noting its timeliness after the UN's COP 28 in Dubai. She emphasized the importance of global efforts to reduce greenhouse gas emissions to limit global warming to 1.5 degrees Celsius. Engstrom outlined ADB's commitment to \$100 billion in climate finance by 2030, with a focus on mitigation and adaptation projects, including energy efficiency initiatives. She discussed ADB's role as a "climate bank" and its efforts to mobilize private sector financing for climate solutions. Engstrom emphasized the importance of collaboration with the insurance industry to de-risk climate-related projects and highlighted ADB's initiatives in this regard. She described ongoing efforts to explore innovative energy efficiency finance and insurance models in India and the Philippines. Engstrom concluded by expressing hope for productive discussions and collaboration among public and private sector stakeholders to build a more resilient future.

**Abhay Bakre, DG BEE**, in his address, expressed gratitude to Christine and Geraldine respectively and the experts from the International Institute for Energy Conservation (IIEC) and the delegates participating virtually. He commended the collaborative effort between the ADB, OECD, and BEE in organizing the workshop. DG BEE highlighted the importance of the workshop in addressing barriers to energy efficiency investment and promoting dialogue on solutions. He emphasized the significant role of energy efficiency in achieving global net zero emissions by 2050, noting its potential to contribute up to 40% of emission reductions. Despite this potential, DG BEE pointed out that investment in energy efficiency has historically lagged due to perceived risks and financial barriers. He discussed efforts to mainstream energy efficiency, align with doubling energy efficiency by 2030 discussed during recent COP28. DG BEE underscored the need to bridge the gap between investment in supply-side technologies like renewables and demand-side solutions like energy efficiency. He highlighted the importance of de-risking instruments and innovative financial products to incentivize investment in energy efficiency projects, particularly in industries where short payback periods are a concern. DG BEE concluded by expressing optimism that the workshop would generate effective solutions to accelerate investment in energy efficiency and thanked participants for their contributions.

## **B. Session 1:**

The discussion in **Session 1**, moderated by **Thomas Kessler Principal Finance Specialist, ADB**, focused on sustainable finance solutions and energy efficiency. The panelists, including **P Shyam Sundar Joint Director, BEE, Abhishek Gupta Head of International, Strategy, Appliances, Rooftop Solar and PE & A, Sanjay Dubey, CEO, IIEC, Ravi Kaushal, Chief Manager, SBI and Reena Kori, Associate Director, IDAM** shared valuable insights on key barriers and potential opportunities in the market.

Key points discussed included the challenges faced by small-scale industries in accessing loans due to high initial costs and technology obsolescence. The panelists emphasized the importance of incentivizing manufacturers to produce energy-efficient products and reducing taxes on new equipment installations to promote energy efficiency.

Furthermore, the discussion highlighted the need for derisking instruments in financing options, especially for MSME sectors. The panelists stressed the significance of developing a holistic package that includes incentives for energy efficiency, capacity building, and potential subsidies on insurance premiums to drive energy savings.

Overall, the session underscored the collaborative efforts required from financial institutions, manufacturers, and policymakers to address energy efficiency challenges and capitalize on the

vast energy-saving potential by 2030. The panelists' insights set the stage for further discussions on the role of insurance in supporting sustainable finance initiatives.

### **C. Session 2:**

The discussion on energy efficiency de-risking instruments featured insights from finance and insurance industry experts, including **Sanjay Dube, CEO, IIEC (Moderator), Arup Chatterjee, Principal Finance Specialist, ADB, Ankur Gupta, Head of Client Management, Munich RE, Anant Bhardwaj, Senior VP, AU Small Finance Bank, Gaurav Jain, CEO, AXA France VIE – India, and Sunil Sharma, Vice President, Darashaw & Co.**

The most important challenges discussed during the session includes:

***Bridging the Gap:*** The experts emphasized the importance of bridging the gap between technology providers and financial institutions to facilitate the adoption of energy efficiency measures. Effective communication and collaboration between these stakeholders were highlighted as crucial for successful project financing.

***Addressing Information Asymmetry:*** The session discussed the challenges posed by information asymmetry in the energy efficiency sector. Strategies to address this issue included enhancing transparency, sharing best practices, and providing technical assistance to stakeholders.

***Evaluating Technology Risks:*** The experts underscored the need to assess and mitigate technology risks associated with energy efficiency projects. Understanding the performance and reliability of energy-efficient technologies is essential for investors and insurers to make informed decisions.

***Navigating Regulatory Challenges:*** Regulatory frameworks play a significant role in shaping the energy efficiency landscape. The panelists discussed the importance of navigating regulatory challenges and creating an enabling environment for energy efficiency investments through policy support and incentives.

***Structuring Financial Mechanisms:*** The session explored different financial mechanisms, such as policy-based loans and project loans, to de-risk energy efficiency investments. The experts highlighted the role of multilateral banks in providing financial de-risking instruments to support sustainable energy projects.

***Collaboration and Communication:*** Collaboration among stakeholders, including governments, financial institutions, and technology providers, was emphasized as key to unlocking investment in energy efficiency. Effective communication strategies and tailored support for different stakeholders were identified as essential for driving successful energy efficiency initiatives.

***Role of Finance and Insurance Sectors:*** The discussion underscored the critical role of the finance and insurance sectors in mainstreaming climate action and promoting sustainable development. By developing innovative financial products and risk mitigation strategies, these sectors can catalyze investments in energy efficiency and contribute to achieving environmental goals.

Overall, the session provided valuable insights into the challenges and opportunities in designing and implementing energy efficiency de-risking instruments, highlighting the importance of collaboration, information sharing, and tailored financial solutions in driving sustainable energy initiatives.

### **D. Session 3:**

**Session 3 on unlocking the Energy Savings Insurance market landscape in India**, was moderated by **Geraldine Ang, Team Lead, CEFIM, OECD**. The first part of the session explored the ESI market landscape in India. Panelists, including experts like **Cornelia Schenk from OECD, Manoj Kumar from UNEP, Anil Choudhury from EESL and Livia Miethke from BASE**, shared their insights into clean energy finance and sustainable finance. The emphasis was placed on the significance of stakeholder consultations and workshops in identifying barriers and opportunities for enhancing clean energy finance and investment in the country.

Throughout the discussion, the need for innovative solutions to drive improvements in clean energy finance and investment within the Indian context was emphasized strongly. Legal barriers and sector-specific challenges were highlighted as key areas that needed to be addressed, particularly in the implementation of ESI, with a specific emphasis on targeting MSME clusters. The importance of fostering dialogue among different communities was underscored as a critical factor in advancing sustainable energy practices and overcoming existing hurdles in the sector. Sectoral pilots and the practical implementation of the ESI model in selected MSME clusters was discussed as a possible way forward for promoting energy efficiency initiatives in India. By recognizing the need for collaborative efforts and targeted interventions, the session set the tone for a comprehensive approach to driving sustainable finance, overcoming barriers, and catalysing the adoption of energy-saving practices across India's evolving energy landscape.

The panelists, Cornelia and Livia shared valuable insights into the market landscape and opportunities for an Energy Savings Insurance (ESI) model. The discussion underscored the significance of stakeholder engagement in driving industry growth and the pivotal role of enabling policy environments in shaping the energy efficiency sector. Key topics addressed during the session included the implementation of energy-efficient technologies specifically targeted at Micro, Small, and Medium Enterprises (MSME) clusters, as well as the financial considerations that lenders need to consider when investing in energy efficiency projects. By focusing on these key aspects, the session laid the groundwork for a comprehensive understanding of the current state of energy savings insurance in India, while also highlighting the immense potential for growth and innovation within the sector. This session served as a crucial starting point for exploring avenues to enhance energy efficiency practices and promote sustainable development in the Indian market.

**Geraldine Ang** steered the discussion towards exploring solutions to address the challenges. She emphasized the significance of capacity building and knowledge sharing in fostering awareness and trust in energy efficiency technologies. Additionally, she highlighted the necessity for ongoing collaboration among various stakeholders, including government, industry, and civil society, to develop and implement effective energy-saving solutions.

**Cornelia Schenk**, elaborated on potential benefits of comprehensive ESI models beyond the financial guarantees offered, such as improved risk assessment through strengthened capacities and independent verification and validation of energy efficiency projects. She acknowledged stakeholder concerns regarding the complexities involved in designing and administering the scheme and highlighted examples of potential mitigation measures to keep transaction costs low, consider proven methodologies for performance monitoring and explore different insurance products. Additionally, she underscored the importance of transparency and stakeholder engagement throughout this design and implementation process.

**Livia Miethke** offered insights into the de-risking mechanisms employed in existing ESI models, highlighting the importance of adapting them to the specific context of India. She emphasized the need for capacity building initiatives targeting various stakeholders, including financial institutions, project developers, and potential beneficiaries, to ensure successful implementation. **Miethke**

also briefly mentioned the potential of technology in streamlining data collection, monitoring, and verification processes associated with energy savings insurance.

**Manoj Kumar**, drawing from his practical experience, shared the challenges faced by project developers in securing financing and navigating complex regulations. While expressing cautious optimism regarding the potential of energy savings insurance, he emphasized the need for clear and transparent guidelines to ensure the scheme benefits both project developers and investors. Kumar also briefly discussed the importance of considering local contexts and tailoring the scheme to address the specific needs of different regions and sectors in India.

**Anil Chaudhary** offered insights into initiatives undertaken by India's Super ESCO EESL to promote energy efficiency in India. He expressed support for exploring innovative financing mechanisms like energy savings insurance but cautioned against potential administrative burdens and complexities that could hinder its adoption. Chaudhary suggested a phased approach, potentially starting with pilot projects in specific sectors or regions, to gain experience and address challenges before wider rollout.

The session highlights key challenges and opportunity as below.

- Barrier: Sector-specific challenges, particularly in navigating complex regulations and securing financing for energy efficiency projects, identified as obstacles to promoting energy efficiency financing in India.
- Opportunity: Energy Savings Insurance (ESI) model facilitates access to finance for MSMEs to deploy energy efficiency technologies while also mitigating uncertainty around the performance of these technologies.

In the 2nd part of Session 3 on the scene setting of ESI Market landscape, **Rajiv Kumar from SIDBI** and **M.A. Patil from FICCI** presented on barriers and opportunities in SME clusters.

#### **E. Session 4:**

In the **Session 4** on operationalizing Energy Saving Insurance in India, led by **Moongyung LEE, Policy Analyst, OECD** the discussion centered around the readiness of the Indian market for energy efficiency financing and the implementation of an Energy Savings Insurance (ESI) model. Panelists were **Bhaskar Natarajan from AEEE, Inderjit Singh from General Insurance Council (GIC), Pradeep Kumar from Power Finance Corporation (PFC), Anurag Mishra from GCF** and **Rajiv Kumar from SIDBI**. The session focused on addressing market disarticulation, coordination challenges, standardization of processes, and understanding consumer behaviour within the MSME sector. Speakers delved into designing tailored models and products to cater to the specific needs of MSMEs, aiming to unlock energy efficiency financing opportunities. The session provided valuable insights into the strategies and approaches needed to drive energy efficiency initiatives and promote sustainable practices in India.

The session began with a discussion of the challenges and barriers to energy efficiency financing in India. These include market disarticulation, lack of standardization, and difficulty in switching investment priority or consumer behavior toward energy efficiency.

**Rajiv Kumar** deliberated on the potential of ESI to address these challenges. He suggested that ESI products should be simple, cost-effective, and do not require extra effort from MSMEs. He also emphasized the importance of bringing in original equipment manufacturers (OEMs) and technology providers.

**Inderjeet Singh** highlighted the large potential for energy efficiency while addressing the need for a product to be designed that covers energy service companies, as there are not many such companies currently operating in India. He also suggested that the product should be designed in collaboration with reinsurers and based on a sound assessment of market needs.

**Bhaskar Natarajan** argued that insurance should only be used to cover unexpected events, such as a change in the market that leads to a reduction in efficiency, and to cover a shortfall in performance, which requires adequate measurement and verification. He also suggested considering the costs and benefits of adding insurance to an energy efficiency project, as well as the requirements for implementation.

The session concluded with a discussion of the next steps for operationalizing an ESI model in India. The panelists agreed that there is a need for stronger collaboration between stakeholders, including the government, insurance companies, and energy efficiency companies in moving forward with the ESI model.

## **F. Conclusion**

Geraldine Ang extended the vote of thanks and concluded the workshop with sharing the key outcomes. She presented that throughout the day, diverse panels explored the significant challenges and opportunities associated with implementing an Energy Savings Insurance (ESI) scheme in India. These discussions extended to sharing perspectives on the subsequent steps required for making the ESI scheme operational in the country.

In summary, the overall tone of the session was positive and optimistic regarding the ESI model's potential to propel India towards its energy efficiency objectives. The panelists unanimously stressed the necessity for increased collaboration among stakeholders, including the government agencies, insurance companies, financing institutions, and energy efficiency firms, to advance the implementation of an ESI scheme. The key takeaways from the workshop include:

- The ESI model is a promising new instrument that can help to de-risk energy efficiency investments in India.
- There are several challenges that need to be addressed before it can be widely implemented, such as lack of awareness, lack of access to finance, complexity of technical verification and monitoring process, and high cost of financing.
- There is a need for more collaboration between stakeholders to overcome these challenges and move forward with the ESI model implementation.
- OECD will continue working with BEE, ADB and other partners in India to design and implement an ESI pilot.

## ANNEXURE – 1: Workshop Agenda

Agenda	
Time (IST)	
08:30-09:00	<b>Registration and Coffee</b>
09:00-09:30	<b>INAUGURAL SESSION</b>
	<b>Welcome and Opening Remarks</b> <ul style="list-style-type: none"> <li>Geraldine Ang, Team Lead, CEFIM, OECD</li> </ul>
	<b>Special Address</b> <ul style="list-style-type: none"> <li>Christine Engstrom, Senior Director Sector Group Finance, ADB</li> </ul>
	<b>Keynote Address</b> <ul style="list-style-type: none"> <li>Abhay Bakre, Director General, Bureau of Energy Efficiency (BEE)</li> </ul>
09.30 – 12.00	<b>PART – I: ADB Component</b> <b>De-Risking Instruments for Energy Efficiency Investments in India</b>
09:40 – 10:45	<b>Context Setting Remarks</b> <ul style="list-style-type: none"> <li>Thomas Kessler, Principal Finance Specialist, ADB</li> </ul>
	<b>Session 1: The Role of Energy Efficiency De-Risking Instruments in Improving the Access to Finance in India</b>
	<b>Moderator:</b> <ul style="list-style-type: none"> <li>Thomas Kessler, Principal Finance Specialist, ADB</li> </ul>
	<b>Panel discussion followed by a Q&amp;A:</b> <ul style="list-style-type: none"> <li>Vishal Kapoor, CEO, EESL</li> <li>Sanjay Dube, CEO, IIEC</li> <li>P. Shyam Sunder, Joint Director, BEE</li> <li>Ravi Kaushal, Chief Manager, State Bank of India</li> <li>Reena Kori, Associate Director, Idam</li> </ul>
10:45 – 11:00	<b>Coffee Break</b>
11:00 – 12:00	<b>Session 2: Lessons from Finance and Insurance Industry Experts on Design and Implementation of Energy Efficiency De-Risking Instruments</b>
	<b>Moderator:</b> <ul style="list-style-type: none"> <li>Sanjay Dube, CEO, IIEC</li> </ul>
	<b>Panel discussion followed by a Q&amp;A</b> <ul style="list-style-type: none"> <li>Arup Chatterjee, Principal Finance Specialist, ADB</li> <li>Ankur Gupta, Head of Client Management, Munich Re</li> <li>Sunil Sharma, Vice President, Darashaw &amp; Co.</li> <li>Gaurav Jain, CEO, AXA France VIE - India Re-insurance Branch</li> <li>Anant Bhardwaj, Senior Vice President, AU Small Finance Bank</li> </ul>
12:00-13:00	<b>LUNCH</b>
13:00 – 16:00	<b>PART – II: OECD Component</b> <b>Unlocking Energy Savings Insurance (ESI) in India</b>
13:00-14:00	<b>Session 1: Introduction to ESI in India</b>

	<p><b>Moderator:</b></p> <ul style="list-style-type: none"> <li>• Geraldine Ang, Team Lead, CEFIM, OECD</li> </ul> <p><b>Part 1. Scene Setting on the ESI market landscape in India followed by a Q&amp;A</b></p> <ul style="list-style-type: none"> <li>• Livia Miethke Morais, Sustainable Finance Team Lead, BASE</li> <li>• Sachin Kumar, Director, Shakti Sustainable Energy Foundation</li> <li>• Manoj Kumar Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP</li> <li>• Cornelia Schenk, Policy Analyst, OECD</li> </ul> <p><b>Part 2. Scene Setting on Barriers and opportunities (SME) followed by a Q&amp;A</b></p> <ul style="list-style-type: none"> <li>• Rajiv Kumar, General Manager, SIDBI</li> <li>• M. A. Patil, Assistant Secretary General, FICCI</li> </ul>
14:00-14:15	<b>Coffee Break</b>
14:15-15:50	<p><b>Session 2: Focus Group Discussion on How to develop Energy Savings Insurance (ESI) in India</b></p> <p><b>Moderator</b></p> <ul style="list-style-type: none"> <li>• Moongyung Lee, Policy Analyst, OECD</li> </ul> <p><b>Panel discussion followed by an interactive discussion with all participants.</b></p> <ul style="list-style-type: none"> <li>• Bhaskar Natarajan, Senior Fellow, AEEE</li> <li>• Inderjeet Singh, Secretary General, General Insurance Council (GIC), India</li> <li>• Pradeep Kumar, Chief General Manager, Power Finance Corporation</li> <li>• Anurag Mishra, Senior Renewable Energy Specialist, Green Climate Fund (GCF)</li> <li>• Rajiv Kumar, General Manager, SIDBI</li> </ul>
15:50-16:00	<p><b>Concluding Remarks &amp; Next Steps</b></p> <ul style="list-style-type: none"> <li>• Geraldine Ang, Team Lead, CEFIM, OECD</li> </ul>