P05 / Public policies on energy. Public-Private and Intergovernmental Synergies to Promote Energy Efficiency

Topic : ENVIRONMENT, SDGs, ENERGY

Chair : Michele Gonzalez Galindo (Secretary of Science, Humanities, Technology and Innovation (SECIHTI))

Second Chair : Natalie Ortiz-Guerrero (Secretary of Science, Humanities, Technology and Innovation (SECIHTI))

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

As the world grapples with the urgent need to transition towards a more sustainable energy systems, the role of effective public policies becomes paramount. This proposal seeks to explore innovative strategies to improve energy efficiency through the dynamic interplay of public-private partnerships and intergovernmental collaboration. Through the analysis of successful case studies and best practices, this panel aims to identify actionable policies that can drive energy savings, promote economic development, and mitigate environmental impacts.

The objective of this panel is to address the challenges, changes, and perspectives concerning energy policies influenced both government and private sectors. It will focus on the role of public policies in improving energy efficiency and fostering synergies between public and private sectors, along with different governmental levels. In the context of growing concerns about climate change and the need for diverse energy sources, the discussion will focus on collaborative models that optimize energy resource use and promote sustainability. The objectives include the identification of best practices, evaluation of the current policies' impact, and exploring new strategies to achieve the energy efficiency goals established by international organizations.

Improving energy efficiency is essential for addressing global warming and attaining the Sustainable Development Goals outlined by United Nations. Additionally, it represents economic and social benefits. This involves the utilizing technologies that are more energy-efficient, increasing of renewable energy use, and the mitigation of greenhouse gas emissions (AbdulKarim et al., 2021). Enhancements in energy efficiency can be achieved across various sectors, such as residential, commercial, industrial, transportation, agriculture, and public services (Heshmati, A.,2021).

According to research conducted on the overall factor energy efficiency of ten major energy- consuming countries by Xuan et al. (2023), the United States and Germany occupied the top position in energy efficiency, whereas China and India positioned at the bottom. Considering different sectors, it is evident that industrial sector has experienced a significant improvement in energy efficiency over the past two decades. In contrast, sectors such agriculture, mining and transport have not shown a remarkable change in this regard. The Energy Efficiency 2020 report (IEA, 2023) highlights a significant change in energy efficiency, driven by increased use of clean energy sources. Government policies promoting energy-saving programs are accelerating the development of efficient technologies, thus contributing to the decrease in reliance on fossil fuels within the energy sector.

Policymakers should asses the effectiveness of diverse policy tools to promote the adoption of green technologies. Economic incentives as well as direct regulations can both facilitate the adoption of energy-saving technologies (Jaffe & Stavins, 1994; Caillé, Castro, Bundgaard-Jensen, Fall & Doucet, 2008). An assessment of energy efficiency policies is essential to address elevated oil prices, industrial competitiveness, climate change, and energy security in both the short and long term. Cooperation and information exchange are vital for the successful implementation of efficient measures and advising decision-makers on selection of appropriate strategies.

The panel will focus on two main questions: 1. How can the enhancement of energy efficiency can be facilitated through collaboration among the public, private, and intergovernmental sectors? 2. How can different government levels cooperate to implement effective energy efficiency policies?

Hypothesis to Explore

Regulatory Framework: A well-defined regulatory framework boosts private sector investment in energy efficiency, thereby resulting in improved sustainability outcomes.

Multilateral Collaboration: Collaborative efforts among governments create standards and best practices,

thereby enhancing the adoption of energy-efficient technologies.

Innovation and Investment: Public-private partnerships encourage innovation, leading to accessible energy solutions that narrow the disparity between developed and developing nations.

Education and Awareness: Collaborative initiatives between of governments and businesses raise public awareness regarding energy efficiency, thus stimulating interest and support policies that promote efficiency.

In conclusion, this panel function as an important forum for the discussion of how cross-sector collaborations can enhance a sustainable energy future, providing innovative insights and public policies that benefit to society.

References

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CALL FOR PAPERS

The evolving landscape of energy consumption and production requires innovative responses from governments, industries, and civil society alike. In this panel, scholars, practitioners, and policymakers are cordially invited to submit papers that explore the complex dynamics of public policies designed to improve energy efficiency through collaborative initiatives involving both public and private sectors, along with intergovernmental partnerships.

We have a specific interest in researches that examines successful case studies of policy implementation, highlighting synergies among different stakeholders involved in energy efficiency initiatives. Papers may explore into the roles of government regulations, public-private partnerships, and multi-level governance structures that either enable or impede the effectiveness of energy policies. We encourage contributors to analyze the effectiveness of current strategies, suggest innovative frameworks, and assess the outcomes of collaborative efforts.

In addition, submissions critically assessing the impact of socio-economic factors on energy policies, with a specific focus on equity and accessibility to energy-efficient technologies among different demographics and regions, are welcomed. Papers are expected to analyze the implications of climate change and the transition to renewable energy sources, by examining how public policies can be harmonized with sustainable development goals while fostering innovation.

Moreover, we are keen on interdisciplinary approaches that integrate insights from economics, environmental science, sociology, and technology studies to present a comprehensive overview of energy efficiency as a public policy issue.

Contributors are expected for originality and rigor, presenting empirical research, theoretical analyses, or applied case studies that contribute to our understanding of how collaboration between public-private and intergovernmental entities can serve as catalysts for improved energy efficiency.

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Session 1Public policies on energy. Public-Private and Intergovernmental Synergies to Promote Energy Efficiency

Wednesday, July 2nd 13:45 to 15:45 (B4)

Discussants

Mohit Kumar Gautam (Indian Institute of Technology, Kharagpur)

LIZBETH SOTO JIMENEZ (Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional Unidad Zacatenco)

Solar Energy for Marginalized Groups: Microfinance as a Tool for Financial Inclusion and Sustainability

Mohit Kumar Gautam (Indian Institute of Technology, Kharagpur)

(Virtual) Thailand's Energy Efficiency Policy and Socio-economic Factors: Impact Analysis and Evaluation

Puree Sirasoontorn (Thammasat University)

Monthien Satimanon (Thammasat University)

Public-Private and Intergovernmental Collaboration in Mexico: Strategies to Strengthen Energy Efficiency

LIZBETH SOTO JIMENEZ (Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional Unidad Zacatenco)

Enhancing energy efficiency through public-private partnership: A study of India’s micro, small, and medium sector

Manish Sihag (Panjab University)

Manisha Sihag (Panjab University)

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Session 2Public policies on energy. Public-Private and Intergovernmental Synergies to Promote Energy Efficiency

Thursday, July 3rd 08:00 to 10:00 (B4)

Discussants

Mamdooh Abdul Fathah (University of Hyderabad)

Ruth Maria Hanau Santini (Università di Napoli L'Orientale)

(Virtual) Public Policy to Promote Energy Efficiency: Uncovering the Hidden Human Dimension of Energy Use in the Canadian Housing Sector

Alexandra Mallett (Carleton University)

Corporate Net Zero Transformation in the UAE: Analysing Motivations, Challenges and Strategic Pathways

Mahmoud Elrefai (Bocconi University)

Boosting Green Hydrogen: Public-Private Synergies for Energy Efficiency in Developed and Emerging Economies

Pablo Eduardo Baltazar Victoria (Instituto Politécnico Nacional)

MARÍA DE LA LUZ ALMEGUA (IPN MÉXICO)

RENE MENDOZA (Instituto Politécnico Nacional)

(Virtual) Italy's energy policy in Africa: a difficult balancing act between fossil fuels and renewalbles

Ruth Maria Hanau Santini (Università di Napoli L'Orientale)

Andrea Prontera (University of Macerata)

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Session 3

Thursday, July 3rd 10:15 to 12:15 (B4)

Discussants

Rizalino Cruz (National College of Public Administration and Governance, University of the Philippines)

Marie DeCock (Hasselt University)

(Virtual) Examining Renewable Energy Initiatives of Local Governments in the Philippines: Key Challenges and Innovative Solutions

Rizalino Cruz (University of the Philippines Diliman)

Kristoffer Berse (University of the Philippines Diliman)

Harley Deniel Sanchez (University of the Philippines Diliman)

Legal Challenges for Public-Private and Intergovernmental Energy Companies: The Role of Law in Enhancing Energy Efficiency

Marie DeCock (Hasselt University)

Steven Van Garsse (University of Hasselt)

(Virtual) Bus Electrification in Hong Kong: Energy Consumption Prediction and Charging Facility Planning

Pengyu Zhu (Hong Kong University of Science and Technology)

Yuqing GUO (Hong Kong University of Science and Technology)

Jeffrey Chow (The Hong Kong University of Science and Technology, Hong Kong)

Lithium in Mexico: An Opportunity to Develop and Implement a Public Policy to Mitigate the Local Socio-Environmental Impact and to Achieve a Genuine Global Energy Transition.

Xochitl Virginia Bello-Yañez (COFAA)

María Concepción Martínez Rodríguez (Instituto Politécnico Nacional)

The Power of the Individual: Inter-state Conflict & Individual Energy Supply Choices

Ken Stillller (European University Institute)