IRENA's side event at the Energy Transition Working Group (ETWG) meeting

"*Advancing Energy Transition: Best Practices in Energy Planning for Social Inclusion and Mobilizing Finance*"

29 May 2024 (11:00 a.m. to 12:30 p.m.)
Location*: Minascentro, Auditorium C, Belo Horizonte, Brazil*

Background

The objective of this session was to explore the components that constitute effective energy planning, with a focus on the inclusivity of energy planning processes, including national cross-governmental cooperation, as well as the strategic use of energy scenarios for mobilising energy transition finances. Drawing on the insights from members and partners of the Global Network on LTES, this session also aimed to contribute to ongoing discussions on the Global Coalition for Energy Planning – one of the key initiaitves from the G20 Brazilian presidency. The session was attened by approximately 50 participants who inlcuded government offIcials, policy maker and researchers.

Session 1: "Participatory process – cross government cooperation and social inclusion"

Panelists

Christian Stenberg, *Deputy Permanent Secretary, Ministry of Climate, Energy and Utilities, Denmark*

Thiago Teixeira, *Director of Energy Economics and Environmental Studies Division. EPE, Brazil*

Erica Berg, *Deputy Director, International Policy and Engagement Division, Natural Resources Canada*

Key Take Aways

- Strong energy planning using data and technology-neutral modeling is essential for successful energy transitions - it provides unbiased evidence for setting ambitious yet achievable targets while building confidence among decision-makers and stakeholders.
- Getting all relevant stakeholders actively involved, especially underrepresented communities as partners rather than just advisors, leads to better results by raising ambition levels, spotting risks early, and ensuring broader support for the transition.
- As energy systems shift toward more renewables, a technology-neutral planning approach helps address the growing need for flexibility while adapting to new business models and diverse participants - showing why comprehensive long-term planning is crucial.

Scene Setting Presentation

Asami Miketa, *Head of Energy Transition Planning and Power Sector Transformation, IRENA,* delivered the scene-setting presentation highlighting the role of participatory processes in ensuring robust energy planning. She gave participants an overview of the Global Network on LTES, a network of scenario practitioners from 31 countries and 14 technical institutions. The Network serves as a platform for peer-to-peer knowledge exchange, and the Members and Partners set the agenda and priorities for the network annually. She noted that the Global Network on LTES focuses on scenario use within the government sector and uses a mental model to demonstrate the energy planning process within the general decision-making framework. In this model, energy planning tools are used to create long-term

energy scenarios which inform long-term energy policy-making, and collaborative engagement is vital throughout the whole process. She noted that participatory energy planning is crucial for a sustainable, inclusive energy future due to its ability to build trust among stakeholders and increase the legitimacy of plans; ensure policies are equitable and mindful of all stakeholders' needs; and communicate clear insights about the assumptions, outcomes, and compromises in policy decisions. She noted that IRENA is developing a Participatory Toolkit that features examples from Finland, South Africa, Denmark, Brazil, and the United Kingdom.

Plenary Discussion

Christian Stenberg (***Denmark)*** emphasised that energy planning is crucial for successfully implementing clean energy technologies. He noted that when countries seek Danish support for wind technologies, Denmark's priority is to support comprehensive energy planning and the development of a robust energy plan.

Christian stressed the value of technology-neutral modelling, which provides a factual basis for political decisions, enhancing confidence in setting and achieving higher renewable energy targets. The use of data and facts in planning allows for more informed and ambitious goals, ultimately driving the clean energy transition forward.

He noted that inclusive stakeholder participation often leads to higher ambition in national energy goals. As the share of renewable energy sources like wind and solar increases, these renewables take on a base load role, with other energy assets balancing the system. This shift underscores the importance of planning a flexible energy system to which robust modelling analysis can contribute.

Christian's insights underscore the necessity of thorough and inclusive energy planning, the strategic role of renewables in the energy mix, and the importance of data-driven decision-making to support ambitious clean energy goals.

Mr. Thiago Teixeira (*Brazil),* shared insights from Brazil's approach to energy planning, highlighting several key practices and outcomes. He emphasized the importance of presenting different technological pathways to policymakers. This approach allows for a comprehensive understanding of the options available and facilitates evidence-based decision-making.

Regarding LTES, the Energy Research Office (EPE, in Portuguese) conducts two main studies: (i) a Ten-Year Energy Expansion Plan – PDE; and (ii) a National Energy Plan – PNE (30-year energy plan). For public consultation, Brazil collected over 200 submissions of public opinions in the PDE and more than 100 submissions in the PNE, which demonstrates a commitment to inclusive stakeholder

participation. EPE uses stakeholder inputs to finalise the PDE 2031 and PNE 2050, and at the time, EPE was developing the PDE 2034 and PNE 2055. By basing their plans on evidence and presenting and evaluating possible pathways, they ensure that policymaking is well-informed and reflective of various perspectives.

Thiago also discussed the benefits of stakeholder participation, particularly in reducing information asymmetry and providing elements to foster investments in Brazil. Engaging a wide range of participants helps ensure that all relevant information is available and considered in the planning process. Furthermore, as system flexibility becomes a critical factor, new business models in the energy sector are emerging, and the stakeholder base is becoming even broader.

Thiago's interventions highlight Brazil's commitment to thorough and inclusive energy planning, the role of evidence-based strategies in shaping long-term policies, and the evolving nature of the energy sector in response to increased needs for system flexibility and stakeholder engagement.

Ms. Erica Berg (*Canada),* highlighted the critical role of inclusive stakeholder participation in effective energy planning. She emphasised that respecting differences in opinion is essential in participatory processes, as it helps identify and mitigate risks early on. By involving diverse stakeholders, energy projects can address potential issues proactively, ensuring smoother implementation and greater success.

A key example she shared involved engaging marginalised communities as equity partners in project development. Rather than merely consulting these communities, including them as active participants with a stake in the project fosters a sense of ownership and commitment. This approach facilitates buy-in from the community and reduces the risk of opposition, such as social campaigns against the project.

Erica also discussed the concept of an energy modelling hub in Canada, where energy planning authority is decentralised to sub-national governments. Such a community will allow for opportunities for coordination and collaboration.

Erica pointed out the disparity in resources between industry stakeholders and marginalised communities. While industries typically have the means to engage meaningfully in energy planning, marginalised groups often lack this capacity. Providing these communities with the necessary support and resources is crucial to ensuring their voices are heard and considered equally in the planning process.

Erica's intervention underscored the importance of inclusive and balanced stakeholder participation in advancing the clean energy transition, highlighting successful initiatives and the need for capacity-building support for marginalised communities.

Session 2: "Strategic energy planning for finance mobilization

Panelists

Peter Kinuthia, *Senior Energy Advisor, African Union Commission (AUC)*

Alexandre Siciliano Esposito, *Head of Energy Department, Brazilian Development Bank (BNDES)*

Michelle Hallack, *Senior Specialist, Energy Sector Management Assistance Program, World Bank,*

Key Take Aways

- Comprehensive energy plans that outline the size and type of investments needed create a predictable environment for investors to have a view of the scale and scope of opportunities in the energy and electricity sector.
- Energy planning and national economic planning institutions should work together to ensure the development of investment-ready energy plans, as this ensures credibility for potential investors.
- Energy plans should highlight the socio-economic benefits of proposed energy projects by highlighting key aspects, including job creation, the relationship between energy supply and demand and the impact of innovative technologies, amongst other elements. This will ensure greater stakeholder buy-in and attract investment.

Scene Setting Presentation

Ricardo Gorini, *Head Renewable Energy Transition Roadmaps (REMAP), IRENA* delivered the scene-setting presentation on Mobilizing finances with strategic, cross-governmental energy planning processes. He gave an overview of the financing landscape in Emerging and Developing Economies (EMDEs). A key challenge for EMDEs is the higher financing costs they face. There is a need for stronger public-private partnerships, including with Development Financial Institutions (DFIs), to address this challenge. He further noted that the public sector plays a critical catalysing role by providing a predictable enabling environment for long-term investment decisions of the private sector. A coordinated and transparent energy planning process is key in mitigating perceived investment risks and boosting investors' confidence, thereby contributing to a lowered cost of capital. He presented the Brazil case and noted that the Key factors that secured the flow of capital and attracted private investment include domestic energy

planning and finance institutions working together, enhancing domestic expertise in energy planning and financing, and mitigating investment risks through collaborative process (energy planning and BNDES). Additionally, Brazil uses a collaborative and adaptative process to develop bankable renewable projects with validation by domestic energy planning and finance institutions and secures long-term funds in local currency at low cost for renewable projects.

Peter Kinuthia *(African Union Commission)* provided comprehensive insights into the African Union's energy planning efforts and the significance of the Continental Power Sector Master Plan (CMP). He emphasised that the CMP is crucial for creating a predictable and comprehensive framework for investment across the continent. This predictability reassures investors by indicating continuous opportunities beyond isolated projects, making the investment environment more attractive.

The CMP outlines the size and types of investments needed, providing a clear roadmap for future developments. This detailed planning helps mobilise the necessary funds by showing potential investors the scale and scope of opportunities available.

Peter stressed the importance of ownership in the planning process, ensuring that the plans are realistic, locally relevant, and supported by the communities they are designed to serve. He acknowledged IRENA's support in providing the capacity building needed for the CMP process, which has been instrumental in developing the plan.

Discussing the Global Coalition for Energy Planning (GCEP), Peter welcomed the initiative as timely and necessary. He pointed out that planning capacities vary widely across different regions, and the GCEP can play a vital role in bridging these gaps. By facilitating the exchange of experiences and focusing on capacity building, the GCEP can help regions with less-developed planning capabilities to improve their processes. Access to effective planning tools through the GCEP will be essential for developing robust energy plans, which are critical for securing investment and ensuring sustainable energy development in Africa.

Peter's interventions underscored the importance of comprehensive and predictable energy planning in attracting investments, the need for ownership and local relevance in planning processes, and the potential benefits of international cooperation and capacity building through the GCEP to enhance planning capabilities across Africa.

Alexandre Siciliano Esposito *(Brazilian Development Bank (BNDES)),* elaborated on the integral role of BNDES in supporting Brazil's energy planning and policy target achievement. He emphasised that BNDES actively participates in the country's economic and energy planning process, which not only strengthens the implementation of national energy strategy but also enhances credibility and reduces sectorial risk perception when presenting energy plans to international partners. This engagement is crucial for mobilising funding from global investors. Alexandre highlighted that financial instruments offered by BNDES are designed in alignment with national energy plans; therefore supporting the effective implementation of national energy policies. This approach fosters a conducive environment for

investments, making it easier to attract and secure the necessary financial support for clean energy projects.

BNDES has a key role in promoting renewable energy domestic supply chain and contributing to local economic development as elaborated in the 2024 BNDES & IRENA *Development banks and energy planning: Attracting private investment for the energy transition; the Brazilian case* report.

In the context of the Global Coalition for Energy Planning (GCEP), Alexandre emphasised the importance of the role played by the renewable energy supply chain business in supporting local development. He highlighted the importance of developing a green taxonomy system to ensure sustainable development. A green taxonomy is vital when developing business models that can effectively finance technology advancements and support the clean energy transition. By supporting the energy planning process and its implementation, BNDES can help create a more resilient and sustainable energy sector in Brazil.

Michelle Hallack *(World Bank)* provided an in-depth perspective on the crucial role of robust energy planning in de-risking investments and promoting equitable development outcomes. She emphasised that effective energy planning requires seamless coordination among various stakeholders, ensuring that all voices are heard and integrated into the final strategy. This coordination helps create a stable environment that reduces perceived risks for the private sector while encouraging market entry and investment by demonstrating strong long-term prospects.

Michelle highlighted that comprehensive planning processes can showcase broader socio-economic benefits of energy projects, such as job creation, the relationship between energy supply and demand, and fostering innovation ecosystems. By presenting these benefits, energy plans can garner broader support and highlight the positive impacts of clean energy transitions on communities and economies. She also noted that addressing critical areas like clean cooking is essential to energy planning, as it contributes to improved health outcomes and environmental benefits.

In discussing the Global Coalition for Energy Planning (GCEP), Ms. Hallack underscored the importance of capacity building within this framework. She suggested that linking GCEP efforts with Long-Term Low Emission Development Strategies (LT-LEDS) would be highly beneficial, as it allows for tapping into additional funding sources such as carbon finance and impact finance. This linkage would enhance the financial viability and sustainability of energy projects.

Michelle's insights underscored the necessity of thorough and inclusive energy planning processes to attract private sector investment and ensure the overall success and sustainability of energy projects while also addressing socio-economic and environmental benefits.