

Tenth session of the IRENA Assembly

Public-Private Dialogue

10 January 2020, 14:30 – 18:00, Room A1
St. Regis Hotel, Saadiyat Island, Abu Dhabi

Session 1

Adapting Market Design and Policies to Support the Integration of High-Shares of Variable Renewable Energy (VRE)

Background

The world has witnessed vast advancements in renewable energy over the past decade. Rapid technology progress, maturing policy frameworks and continuous cost declines have made renewable energy the most cost-competitive option for new energy capacity installations.

With countries and companies increasingly turning to renewable energy to expand their power infrastructure, new opportunities as well as challenges have risen. Current power systems, which are designed based on operational characteristics and cost structures of centralised fossil fuel-based generation technologies, fall short of supporting the transition to a renewables-based system in many respects. Large-scale deployment of solar and wind generation with its variability and cost structure calls for increased system flexibility, a more active participation of market actors and a redesign of today's power system setup.

Context-specific, proactive regulation and new market rules will be needed for power systems to support ambitious renewable energy targets. In this context, policy makers and regulators have a key role to play in further adapting legislative and regulatory frameworks and creating an enabling environment for renewable energy uptake. To identify suitable market rules for the years to come and ensure efficient and effective policies, facilitating increased collaboration between public, private and community stakeholders will be essential.

The Towards 100% Renewable Energy Group of the IRENA Coalition for Action has been focusing its efforts and analyses on how to rapidly increase renewable energy shares in the global energy mix. Building on case studies of utilities in transition, the Coalition finds that major opportunities exist to scale up renewables to shares as high as 100%, with the right enabling frameworks in place. The Coalition Business and Investors Group is focusing on the scaling-up of renewable energy investment in emerging markets and has identified that one of the key challenges that remain, is still the misconception among various stakeholders on the possibilities to integrate higher shares of variable renewables in the energy system.

Objectives

Achieving a successful power system transformation that can cope with very high shares of renewable energy will require broad stakeholder collaboration and consultation on market rules, regulations and infrastructure investment. Gathering policy makers, private sector representatives and community stakeholders, the Public-Private Dialogue intends to discuss opportunities to increase variable renewable energy penetration with a focus on power markets and supporting policies.

Guiding Questions

- What efforts, in terms of policies, regulation, and system planning are needed to ensure that large shares of variable renewable energy can be integrated into the grid?
- How can collaboration between public, private and community stakeholders be strengthened to further adapt market design to large shares of variable renewable energy into the grid?
- When integrating very high shares of renewable energy into the power grid, what are the key limitations associated with current power market setups/rules?

Associated Publications

- Towards 100% Renewable Energy: Utilities in Transition – IRENA Coalition for Action white paper (forthcoming, January 2020)
- Power System Organisational Structures for the Renewable Energy Era – IRENA (forthcoming, January 2020)
- Analytical Brief on 100% Renewable Energy Power Systems – IRENA (forthcoming, 2020)
- Innovations for 100% renewable power in Sweden – IRENA (forthcoming, 2020)

Organised in collaboration with

IRENA Coalition for Action and IRENA Legislators Forum

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Session 2

Scaling-up Private Sector Investment to Accelerate Africa's Energy Transition

Background

At the heart of the 2030 Agenda for Sustainable Development, renewable energy represents a key solution for alleviating poverty, addressing climate change and delivering modern energy services to over 500 million people in Africa that are living without access to electricity. IRENA estimates that Africa could meet nearly a quarter of its energy needs from clean renewable energy by 2030 and that modern renewables could provide half the continent's total electricity generation capacity - amounting to 310 gigawatts (GW). This corresponds to a sevenfold increase from the capacity available in 2017, of about 42 GW.

While sustainable energy is at the forefront of the development plans of African nations, increased efforts to support the energy transition and reach universal energy access are needed. Accelerating the energy transition in Africa requires a significant scaling-up of total investment, with the current financing gap to meet the universal energy access target estimated at USD 90 billion a year for the region. A large majority of this would need to come from the private sector although public capital also has an important role to play in terms of mobilising private investors.

The last decade has witnessed growing interest from private investors to engage in Africa, both in large-scale utility projects and small-scale off-grid solutions. Innovation in financing and delivery models have made technologies and modern energy services accessible, affordable and sustainable. According to private investors, there is no lack of interest or capital in the region but there continues to be a shortage of bankable renewable energy projects due to various investment risks.

Policy makers have a key role to play in lowering real or perceived risks and creating an environment conducive to increased investments in renewables. Such efforts include supporting initiatives to de-risk investments and establishing an enabling regulatory framework that provides certainty over time assuring a just and inclusive energy transition.

Objectives

Gathering policy makers, private sector representatives, public capital providers and community stakeholders, the Public-Private Dialogue intends to showcase successful policies and frameworks in the region for unlocking private capital. The discussion will focus on existing investment barriers to renewable energy and the identification of areas where IRENA and partners can make meaningful contributions. It will further address how to ensure closer collaboration between private and public actors while maximising socio-economic benefits.

Guiding Questions

- What are the main regulatory/financial/administrative barriers to scaling-up renewable energy investment in Africa? How can these barriers be addressed?
- How can policies and new business models ensure that renewable energy investment results in socio-economic benefits for all?
- How can a public-private engagement contribute to unlocking investment and facilitate renewable energy projects in the region?
- What are examples of successful innovations and initiatives that can be replicated to scale up renewable energy investment in Africa?

Associated Publications

- [Scaling Up Renewable Energy Deployment in Africa: Impact of IRENA's Engagement](#) – IRENA (2019)
- [Africa's Future Counts: Renewables & the Water-Energy-Food Nexus in Africa](#) – RES4Africa Foundation (2019)
- [Scaling Up Renewable Energy Investment in Emerging Markets: Challenges, Risks and Solutions](#) – IRENA Coalition for Action White Paper (2018)
- [Unlocking Renewable Energy Investment: The Role of Risk Mitigation and Structured Finance](#) – IRENA (2016)

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