

SESSION NOTE

High-Level Session: Renewable Energy Opportunities and the SDGs

14 November 2018- 16:15- 17:45

Ensuring universal access to affordable, reliable, sustainable and modern energy, as defined in the Sustainable Development Goal 7, will be instrumental to achieve the whole 2030 Agenda. A substantial increase in the uptake of renewable energies and of the rate of improvements of energy efficiency is essential to achieve the SDG7 access target and the Paris agreement. This high-level session will focus on the challenges and opportunities of increasing energy access in developing countries while achieving the Paris agreement, through increased use of renewable energy.

Despite encouraging progress globally, the world is not on track to achieve SDG 7, and on the basis of existing and announced policies, 8% of the global population or 674 million people will still lack access to electricity in 2030, down from 1.1 billion in 2016. (IEA, 2017). The situation in Sub-Saharan Africa is especially challenging, with more people projected to be without electricity in 2030 than there were in 2000, as regionally the electrification rate fails to keep pace with population growth.

Significant progress on electricity access has taken place since 2000, with 1.2 billion people -- three-quarters in Developing Asia -- gaining access through 2016, and the pace of electrification accelerating since 2012. India in particular has achieved remarkable gains in access, with 500 million people gaining access to electricity since 2000, and is on track to achieve universal electricity access by the early 2020s; China achieved universal access in 2015.

Rapidly falling costs of renewable energy technologies combined with digital finance enabled through expanding mobile phone ownership and new business models (e.g. "pay as you go" financing) are remaking the landscape for energy access, particularly for rural and remote communities that are generally uneconomical for the grid to reach. Even the 28% of this additional population that gains access through grid extension is projected to do so mostly through the use of renewables, largely hydro and solar PV.

Cumulative investment needed to realise IEA's Energy for All scenario is on the order of \$786 billion during 2017-2030, or \$52 billion annually, amounting to 3.4% of total energy sector investment during this period. Of this overall amount, \$433 billion is additional to what is needed under current policies and commitments in order to close the gap and achieve universal energy access by 2030, \$391 billion of which would be needed for universal electricity access and \$42 billion to ensure clean cooking for all. Over 90% of this additional investment would need to be directed to Sub-Saharan Africa.

World energy access investment totalled \$13.1 billion in 2013, falling far short of needed annual amounts to achieve SDG 7.1 (universal electricity access and clean cooking for all) by 2030 (REN21, 2017). Of this, donor financing accounted for about half (33% multilateral aid and 12% bilateral aid) with developing country budgets (37%) and private finance (18%) covering the rest.¹ It is not just that the level of overall finance is insufficient for SDG 7, but that the portfolios of donors, and the traditional financing instruments and approaches they take, may be oriented towards outdated models in terms of energy access going forward. Transformational change will be needed to achieve agreed targets, with an increased emphasis on decentralized solutions and a much larger private finance component, underscoring a catalytic role for public flows to mobilise and blend with private sources of funds, supported by new policy and regulatory frameworks.

Development finance in support of the energy sector is considerable and amounts to over USD 15 billion of Official Development Assistance (ODA) and over USD 12 billion of Other Official Flows (OOF), on average during 2015/16. Financing for the energy sector grew considerably in the last decade but this financing does not concentrate in either the countries or the sectors that are most crucial to achieving SDG 7. Development finance in support of improved energy access and services is highly concentrated in grid-connected systems, yet achieving SDG 7 will principally require the development and deployment of decentralised mini-grids and independent systems².

Achieving universal access to modern energy services will require more than just an increased availability of public finance. The establishment of enabling policy and regulatory frameworks, able to attract private investment, ensure the financial stability of utilities, encourage the uptake of renewable energy sources and energy efficiency solutions, and allow and support nascent off-grid and mini-grid solutions, is crucial. Through its global Regulatory Indicators for Sustainable Energy (RISE) initiative³, the World Bank notes that policy and regulatory frameworks in support of the SDG 7 are inadequate in most of Sub-Saharan Africa.

This, together with the higher risks of doing business in most of these countries, is a limiting factor in the deployment of needed private capital to achieve access to modern energy for all. Technical assistance to support the establishment of an adequate enabling environment, the strengthening of peer networks among countries that face similar energy challenges, and the availability of derisking and innovative financial instruments will play an important role in achieving access to modern energy solutions for all.

¹ <https://www.iea.org/energyaccess/financingenergyaccess/>

² https://www.seforall.org/sites/default/files/2017_SEforall_FR4_PolicyPaper.pdf

³ <http://rise.esmap.org/>

[Useful Links](#)

OECD work on Blended Finance

- [OECD \(2018\), "Making Blended Finance Work for the SDGs", OECD Publishing, Paris.](#)
- [OECD-DAC Blended Finance Principles](#)
- [Tri Hita Karana Roadmap for Blended Finance](#)

- [OECD Centre on Green Finance and Investment](#)
 - Through the Centre, and with the support of the Danish government, the OECD is developing a new **Clean Energy Finance and Investment Mobilisation Programme**, to be launched in January 2019. This programme will focus on supporting the development of policy frameworks to attract finance and investment in renewable energy and energy efficiency.
 - [Policy Guidance for Investment in Clean Energy Infrastructure \(2015\)](#)
 - [The Empirics of Enabling Investment and Innovation in Renewable Energy \(2017; blog article, Investment Insight\)](#)
 - [State-owned enterprises and the low-carbon transition \(2018; blog\)](#)
 - [5th OECD Green Investment Financing Forum](#)
 - [Financing Climate Futures: Rethinking Infrastructure Synthesis Report](#)
 - [Investing in Climate, Investing in Growth \(see Chapter 7 on Mobilising Financing for the Transition\)](#)
 - [Crishna Morgado, N. and B. Lasfargues \(2017\), "Engaging the Private Sector for Green Growth and Climate Action: An Overview of Development Co-Operation Efforts"](#)

- EUEI-PDF (European Union Energy Initiative Partnership Dialogue Facility), 2016. *Mapping of Energy Initiatives and Programs in Africa, final Report.*
- IEA (International Energy Agency), 2017. *Energy Access Outlook 2017: From Poverty to Prosperity.*
- SEforALL (Sustainable Energy for All), 2017. *Energizing Finance: Scaling and Refining Finance in Countries with Large Energy Access Gaps.*
- REN21 (Renewable Energy Policy Network for the 21st Century), 2017. *Renewables 2017: Global Status Report.*
- UN DESA (United Nations Department of Economic and Social Affairs), 2018. *Accelerating SDG 7 Achievement: Policy Briefs in Support of the First SDG 7 Review at the UN High-Level Political Forum 2018.*

- World Bank, 2016. RISE – *Regulatory Indicators for Sustainable Energy*.
- New Climate Economy
 - 2018 report: “Unlocking the Inclusive Growth Story of the 21st Century : Accelerating Climate Action in Urgent Times”
 - 2016 report: “The Sustainable Infrastructure Imperative. Financing for Better Growth and Development