Scaling up Renewable Energy Investment for Sustainable Development

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EXECUTIVE SUMMARY

Renewable energy generation is a fundamental component of the transition to a low-carbon economy. The world needs to invest up to USD 600 million annually to meet the electricity demand in a sustainable way whereas the current investment level stands at USD 280 billion. Scaling-up the current level of investment requires a larger implication of the private sectors and a different role for the public sector. The challenge lays in the fact that different investors are motivated by a different risk and return profiles. The current chapter presents the trends in renewable energy financial flows and investment vehicles. It looks at the risks associated with the investment in renewable energy and the relevant risk mitigation instruments. Finally, it applies these concepts to the case of the Lake Turkana wind farm in Kenya, a project that faced many challenges and involved more than 15 investors.

BACKGROUND INFORMATION

The global financing needed to meet the Sustainable Development Goals (SDGs) is estimated at USD 3.9 Trillion per year. Today, only USD 1.4 trillion are invested leaving a gap of USD 2.5 trillion globally.

Clean energy plays a central role in delivering the transition to a low-carbon and climate resilient economy and investment has to scale up in order to meet a growing global energy demand. In 2017, the global investment in renewable energy reached a record USD 279.8 billion thanks to the increasing competitiveness of solar and wind technologies. The current investment level is however far from the estimated USD 600 billion needed to meet the global growing energy demand.

SETTING THE STAGE

Renewable Energy Financing: Understanding the Risks

Increasing investment in renewable energy will bring substantial opportunities to the global economy and is an essential element to the decarbonisation of the electricity generation sector necessary to reach the targets set by the Paris Agreement. As mentioned previously, the current level should be scaled up to reach at least the double by 2030.

According to the International Renewable Energy Agency (2016), the private sector is supposed to provide the highest share of this financing as the share of public financing is not likely to increase above the current level of 15%.

The involvement of the private sector is necessary to scaling up the financing for renewable energy. When mentioning the private sector, the literature is generally referring to institutional investors: insurance companies, pension funds and sovereign wealth funds that can more than USD 90 trillion in the real economy (OECD, 2016).

The narrative behind contribution of institutional investors is based on the fact that the liability profile of these investors matches the characteristics of renewable energy as an asset. The fact that revenues from renewable energy projects can be stable over a long term period is particularly attractive. At the same time, renewable energy projects need long-term financing.

Corporations are also important players in the financing of renewable energy projects. More and more companies around the world are voluntarily and actively investing in self-generation of renewable energy. This trend is driven by both the decrease in renewable energy generation prices as well as the demand for corporate sustainability among investors and consumers (IRENA, 2018).

Developing markets have the fastest growing energy demand and will require the largest increase in investment (IRENA, 2016). Development Financial Institutions (DFIs), such as the World Bank, historically played a very important role in scaling up renewable energy investment in developing countries. Multilateral Development Banks are banking institutions owned by governments and whose aim is to help the financing of projects in the developing economies. In 2017, Multilateral Development

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