IRENA
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Note of the Director-General
Investment Pathways towards Advancing Nationally Determined Contributions (NDCs)

1. With approximately two-thirds of global carbon emissions emanating from the energy sector, the deployment of renewables to reduce carbon intensity in energy production and consumption will be critical to addressing climate change. Coupled with energy efficiency, renewable energy technologies offer the most technically feasible and economically viable solution to decarbonise energy production, build a climate-resilient future, and avoid catastrophic climate change. The IRENA Roadmap for a Renewable Energy Future (REmap) shows that staying well below 2°C above pre-industrial levels, as called for in the Paris Agreement, would be possible with a doubling of the renewable energy share to 36% by 2030 compared to the 2014 level, and through additional energy efficiency efforts.

2. The Paris Agreement provides a framework for bottom-up climate action and relies on all Parties to undertake ambitious actions tailored to their specific circumstances and capabilities. A central pillar inscribed in the Agreement are the Nationally Determined Contributions (NDCs), which are national climate action plans which outline each Party's commitment to addressing climate change.

3. In the lead up to the 21st Conference of the Parties (COP21), a total of 187 Parties submitted initial NDCs, their Intended Nationally Determined Contributions (INDCs). These INDCs typically contain a combination of contributions, some conditional on international support, and others set to be implemented regardless of international assistance. Most of these INDCs refer to renewables as a means of decarbonising the economy and building climate resilience. 90 of them state that renewables are a priority area and 75 of these include specific targets related to renewable energy or specific renewable energy technologies.

4. When comparing the renewable energy potential identified in the REmap analysis with the renewable energy level reflected in targets inscribed in the NDCs, it becomes apparent that there is a significant potential for more ambitious targets and increased shares of renewables. The process of moving from what are often general references to renewables in the NDCs to full-fledged investment plans, which are in sync with national energy strategies and plans, provides an opportunity to foster a process towards increasing shares of renewables, which in turn can help raise the ambition of NDCs in line with the ratchet mechanism built into the Paris Agreement.

5. Implementing the NDC-based renewable energy targets requires a scaling up of investments, which can also be an opportunity to attract public resources in the form of climate finance in the energy sector. IRENA has initiated an assessment to quantify the cumulative contribution of the INDCs for Africa. Findings indicate that the unconditional targets, set for instance by African countries, will amount to less than 40 GW of renewable energy generation capacity by 2030. Taking other existing national renewable energy targets and plans of these countries into account increases the level to well above 100

GW. Implementing these targets will require an estimated investment of more than USD 220 billion. Mobilising USD 220 billion for renewable energy investments in Africa is both a challenge and an opportunity for governments, the private sector, international development partners and international finance institutions. IRENA estimated the cost-effective potential of renewables in Africa to be 330 GW by 2030, which would require an annual investment of USD 32 billion for renewables generation capacity. Additional investment would be required for the transmission and distribution infrastructure.

6. Global renewable energy investment in 2015 reached a record level of USD 305 billion, about 85% of which came from the private sector. IRENA's REmap analysis estimates that a doubling of renewables in the global energy mix would require an investment of on average USD 770 billion per year between 2016 and 2030. IRENA's analysis further finds that, a doubling of renewable energy could save up to USD 4.2 trillion annually by mitigating negative externalities, such as air pollution and greenhouse gas emissions. This amount is 15 times higher than the system costs needed for doubling.

7. To mobilise investment at the scale required to address climate change, concerted global efforts are needed. While renewable energy technologies are cost-competitive in many countries, including many emerging economies and other developing countries, the risk associated by investors with renewable energy investments is still too high to scale up to the potential. A global guarantee facility that would provide a one-stop shop with simple procedures using standardised documentation could bridge this gap and push the market to accelerate much more rapidly than under a business-as-usual scenario.

8. IRENA together with the Terrawatt Initiative has launched the Solar Energy Standardisation Initiative and is working with some 15 international law firms, more than 20 public and private finance institutions and a number of project developers to prepare a set of standardised project documents for solar PV projects. Together with a global renewable energy guarantee scheme, which could initially be focused on solar PV, this initiative can transform the investment process for solar PV and provide the basis for a rapid scale-up of solar PV across the globe, in line with globally adopted climate objectives.

9. The NDCs can help countries through climate finance to mobilise the resources needed to advance towards national energy objectives and lead the way in the global energy transformation. As such, NDCs can be an enabler of a dialogue across sectors, including the financial sector, on how to scale up renewable energy investments to levels required to meet climate goals. Public finance sources, including climate finance, would in this context be used to attract other public resources and mobilise private investment at scale.

Objective of the session

10. The purpose of this session is to discuss, from the perspective of governments in developing and developed countries, the opportunities that NDC implementation presents for accelerating renewable energy deployment. Participants will examine the potential of increasing the ambitions of the renewable energy component of NDCs. The session will also focus on ways to improve access to funds from public climate finance institutions and to use such public resources to scale up investment in renewable energy through blended finance. The discussion will cover the proposal of a global renewable energy guarantee scheme, initially focused on solar PV as a standard technology supported with standardised project documentation.

Guiding questions

- How can NDC implementation and renewable energy deployment be mutually supportive?
- What are the institutional requirements to maximise such positive synergy?
- What are key enablers to unlock renewable energy investment at the scale required to shift the world onto climate-safe pathways, and what role can climate finance play in that context?
- How can a global renewable energy guarantee scheme, using standardised project documentation, accelerate the deployment of renewable?