## Energy Transition Pathways for the 2030 Agenda

# Sustainable Energy Transition Roadmap for Jakarta

UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

NEXSTEP
National Expert SDG Tool for Energy Planning

*The shaded areas of the map indicate ESCAP members and associate members.**

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Developed using National Expert SDG7 Tool for Energy Planning (NEXSTEP)

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# Foreword: ESCAP

Following our successful collaboration with the National Energy Council (NEC), the Ministry of National Development Planning (BAPPENAS) and the SDG Secretariat in developing the national Sustainable Development Goal 7 (SDG 7) roadmap for Indonesia, ESCAP is pleased to extend the similar effort to the City of Jakarta. The City of Jakarta is also one of the three pioneers in localizing the National Expert SDG Tool for Energy Planning (NEXSTEP) methodology at the sub-national level.

Achievement of the Sustainable Development Goals (SDGs) and climate ambition under the Paris Agreement requires not only effort from the national level, but also a bottom-up effort from the sub-national regions and cities. Particularly for the megacity of Jakarta, its sustainable energy transition shall have a substantial impact on the national achievements towards SDG 7 and Indonesia's Nationally Determined Contributions (NDCs).

The City of Jakarta, as the heart of Southeast Asia's largest economy, faces several challenges concerning energy use and environmental sustainability. Various initiatives related to sustainable energy have been undertaken by the city, such as developing the world's largest Bus Rapid Transit (BRT) system. The city has also announced an emission reduction target to cap its 2030 emissions at 31.5 million tonnes of carbon dioxide equivalent (MtCO2-e). Collaboration with ESCAP came timely at the start of the Decade of Action, assisting Jakarta to re-examine its current policies, whilst suggesting opportunities to align the city's energy system with the global and city's own goals and targets.

The Sustainable Energy Transition (SET) roadmap proposes several energy transition opportunities that provide multi-fold benefits. Sustainable mobility options, particularly the use of public transport and electric vehicles, shall redefine the means for city dwellers' mobility and travel, whilst reducing energy demand and related air pollution. Building sector also offers a notable energy-saving potential. The roadmap also suggests a substantial increase in the share of renewable energy in the electricity supply chain by, for example, undertaking renewable energy auction, to achieve the city's emission reduction target.

A well-guided energy planning is imperative for the city's endeavour in sustainable energy transition amid the COVID-19 pandemic. ESCAP would like to thank our local partner, Daerah Khusus Ibukota (DKI) Jakarta and local stakeholders for their continuous support and contribution throughout the roadmap development process.

**Hongpeng Liu**

Director, Energy Division, ESCAP

# Foreword: Jakarta

The United Nation's 2030 Agenda for Sustainable Development and the Paris Agreement offer a blueprint for sustainable low-carbon energy transition. While these are national level targets, cities around the world are also adopting these targets to support the national government in achieving these targets as well as to reap the multi-dimensional benefits of a sustainable energy future. As a megacity, with economic and political significance not only in Southeast Asia but across the Asia-Pacific region, Jakarta wishes to place itself as a sustainable city in the region. Adopting a low-carbon energy transition which would address the current and future energy related concerns as well as aligns with the national, regional and global goals and targets, is critically important.

The City has been undertaking several measures to improve its energy sustainability such as developing the world's largest Bus Rapid Transit system, setting-up an emission reduction target, etc. The plan to move the capital to a new city in Borneo is expected to reduce the city congestion and local air pollution. However, all these goals, targets and ambitions require a holistic approach which will consider the cross-sectoral impacts of energy demand and supply as well as identify cost-effective approaches to energy transition. For example, the transport sector needs a special focus as it is the largest energy consuming and emission contributing sector of the City. Furthermore, Jakarta also aims to align its energy system with the 2030 Agenda for Sustainable Development, namely the SDG 7 goal and targets.

Our collaboration with UNESCAP, along with the National SDG Secretariat, in developing the Sustainable Energy Transition Roadmap using the National Expert SDG Tool for Energy Planning (NEXSTEP) explored different pathways for the City of Jakarta to align the energy sector with global goals and targets. The Roadmap also provides valuable suggestions on further improving city's transport sector, particularly in relation to reducing local air pollution and traffic congestion, to enhance the liveability of the city for its people. It also sheds light on how the sustainable energy transition may help us build back better from the impact of the COVID-19 pandemic. We are confident that the recommendations developed through this process will strengthen City's energy planning capacity and support the achievement of targets and ambitions set by the City.

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