

# Foreword

The Clean Energy Finance and Investment Roadmap of Thailand (“the Roadmap”) is one of the key outputs of the Organisation for Economic Co-operation and Development (OECD)’s Clean Energy Finance and Investment Mobilisation (CEFIM) programme. Launched in 2019, the CEFIM programme aims to support governments in selected emerging economies in South and Southeast Asia, Latin America and Africa<sup>1</sup> to unlock finance and investment in clean energy, including renewable power and energy efficiency as well as industry decarbonisation.

The Roadmap was developed in close co-operation and collaboration with the Department of Alternative Energy Development and Efficiency (DEDE) of the Ministry of Energy of Thailand. The Roadmap was developed by the OECD CEFIM programme, with funding from the Government of Denmark. In addition, the Roadmap contributes to Phase 2 of the OECD Thailand Country Programme in 2023-2025.

The Roadmap presents a clear action plan that identifies and addresses bottlenecks constraining finance and investment in Thailand’s clean energy sector. In close consultation with DEDE, two sectors – renewable power, with a special attention to small-scale systems, and energy efficiency in large-scale public and commercial buildings, with a focus on cooling applications – were identified as priorities in the near-term to accelerate the clean energy transition in Thailand and selected accordingly as the two focus areas for this Roadmap. The Roadmap aims to support the Government of Thailand in implementing its energy plans. Conscious of the opportunities that clean energy transition offers to realise its long-term goals of carbon neutrality by 2050 and net-zero greenhouse gas (GHG) emissions by 2065, Thailand prioritised the accelerated deployment of renewable power and energy efficiency to ensure a sustainable, affordable and resilient energy system while supporting the country’s broader economic development and environmental objectives. The Roadmap also aims to support the development of sustainable finance in Thailand, by providing recommendations to help the financial sector offer sustainable investment products and advance the implementation of Thailand’s sustainable finance initiatives.

The Roadmap is structured as follows:

- a Roadmap Action Plan for the Government of Thailand to consider to mobilise finance and investment for small-scale renewable power and energy efficient buildings and cooling appliances
- an overview of key trends, policies and market developments for renewable energy and energy efficiency in Thailand (Chapter 1)
- an estimation of the finance and investment needed to reach Thailand’s clean energy plans as well as estimates of the related economic benefits (Chapter 2)
- analysis of challenges, market barriers, opportunities and solutions to mobilise finance and investment for small-scale renewable power (Chapter 3) and energy efficiency in buildings and cooling applications (Chapter 4)
- supporting Annexes: Process of developing the Roadmap and key stakeholders involved (Annex A); case studies (Annex B); methodology for modelling Thailand’s clean energy finance and investment needs (Annex C) and building Energy Code standards (Annex D).

The modelling work conducted to estimate the clean energy investment and financing needs to meet Thailand's National Energy Plan has been conducted by the Thai consultancy firm The Creagy, which has supported the OECD throughout the preparation of this Roadmap since September 2022.<sup>2</sup> Further details on the methodology applied for the modelling work can be found in Annex C. These models can be updated to reflect the targets of the forthcoming National Energy Plan. The Creagy delivered a training to DEDE staff in 2023 on how to update the models in the future.

The development of the Roadmap builds on strong government ownership and stakeholder engagement. The process for preparing the Roadmap included two in-person stakeholder consultation workshops held in Bangkok, Thailand on 28 April and 24 November 2023, to consult Thai and international public and private stakeholders (see Annex A for the full list) and discuss barriers and possible solutions for unlocking finance and investment in small-scale renewable power and energy efficiency in buildings and cooling systems in Thailand.<sup>3</sup> Thanks to the fruitful discussions during these workshops, the OECD CEFIM Programme gathered valuable inputs and feedback to identify key financing solutions, discuss preliminary Roadmap findings and reach consensus on the Roadmap's actions and recommendations. In addition to engagement and feedback received through the two workshops, the Roadmap has benefited from desktop research and analysis, case studies and bilateral interviews with relevant Thai, regional and international experts. The process of developing this Roadmap is described in detail in Annex A. In the future, the aim is to implement some of the key recommendations from the Roadmap through implementation support activities in Thailand in close co-ordination with the Government of Thailand, to create an impactful collaboration across relevant domestic and international stakeholders.

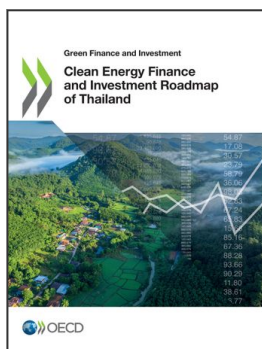
This report is an output of the OECD Environment Policy Committee (EPOC) and its Working Party on Finance and Investment for Environmental Goals (WPFIEG). This report was produced by the OECD Environment Directorate, directed by Jo Tyndall. The Roadmap was drafted by Valentina Bellesi (OECD), with valuable inputs from Kannikar Srithunyalucksana (The Creagy) and Deger Saygin (OECD), under the supervision of Geraldine Ang, Team Lead of the OECD CEFIM Programme, as well as Yuval Laster, Head of the Finance, Investment and Global Relations Division and Mathilde Mesnard, Deputy Director in the OECD Environment Directorate. The authors are grateful for the valuable support from The Creagy to develop this Roadmap, including Boonrod Yaowapruet, Kannikar Srithunyalucksana and Preechaya Rassadanukul. Lylah Davies (OECD) and Aksornchan Chaianong (consultant) contributed to the background research. The authors would like to thank Dominique Haleva for her administrative support and editorial assistance as well as Ria Sandilands and Beth Del Bourgo for communications support.

The authors are extremely grateful for the excellent collaboration with DEDE to develop the Roadmap, especially to Prasert Sinsukprasert, previous Director General of DEDE and current Permanent Secretary of the Ministry of Energy, Wattanapong Kurovat, current Director General of DEDE, and Apiradee Thummamanomai, Director of Strategy and Planning Division (DEDE). Other DEDE staff involved in the development and review of the Roadmap include: Sutthasini Glawgitigul, Siriphat Khwunpetch, Patcharee Sattayarangsan, Praphaphan Pankaew and Phatiphorn Srinorin (Strategy and Planning Division); Charuwan Phipatana-phuttapanta (Solar Energy Development Division), Yaowateera Achawangkul, Juthamas Kijjanuluck and Jirawadee Nitsunkit (Energy Research Division); Nuttanon Jivapaisarnpong and Suthanee Wachasit (Energy Efficiency Promotion Division); Lapastsatorn Jiengwareewong and Ratchaphak Tantisanghirun (Energy Regulation and Conservation Division).

The authors are extremely grateful for the precious inputs and feedback received from the following OECD experts: Joseph Cordonnier, Lylah Davies, Benjamin Denis, Sofie Errendal, Ariola Mbistrova, Takayoshi Kato, Chizuru Kobayashi, Tiyyarat Niamkohphet-Cader, Jolien Noels, Cornelia Schenk, Klas Wetterberg and Yuki Yasarani, as well as experts from the International Energy Agency (IEA), Natalie Kauf and Clara Camarasa.

In addition, the Roadmap benefited from the review and written feedback and inputs from the following Thai and international experts: Surapong Praepattharaprasit (Energy Policy and Planning office (EPPO)

of the Ministry of Energy of Thailand), Tanach Fuangaromya (Ministry of Finance of Thailand), Phirat Inphanich (Office of the Permanent Secretary of the Ministry of Energy of Thailand), Tharinya Supasa (Agora Thailand), Siripha Junlakarn (Energy Research Institute, Chulalongkorn University), Aksornchan Chaianong (independent consultant), Nuttawat Suwattanapongtada (GIZ Thailand), Kwanpadh Suddhi-Dhamakit and Daniel Anthony McGree (World Bank), Suchai Buranavalahok, Santikorn Pakdeesettakul, Marine Chalons and Tero Raassina (Global Green Growth Institute), MK Balaji (USAID Southeast Asia Smart Power Program) and Jirawat Panpiemras (Bangkok Bank). The Roadmap had also been reviewed by representatives of the Electricity Generating Authority of Thailand and the Securities and Exchange Commission of Thailand. The authors are grateful to Sabine Laurent (Climate Bonds Initiative) for providing data on green bonds.



**From:**

## **Clean Energy Finance and Investment Roadmap of Thailand**

**Access the complete publication at:**

<https://doi.org/10.1787/d0cd6ffc-en>

### **Please cite this chapter as:**

OECD (2024), "Foreword", in *Clean Energy Finance and Investment Roadmap of Thailand*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/46acd15e-en>

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.