



THAI - GERMAN COOPERATION ON ENERGY, MOBILITY AND CLIMATE



CONTEXT



At COP26, Thailand announced to reach carbon neutrality by 2050 and net-zero emission target by 2065. To achieve these ambitious goals, Thailand needs to decarbonise its power, transport, and industrial sectors, which are still dominated by fossil fuels, and increase variable renewable energy (vRE) generation, which remains far below its full potential.

Focusing on the power and transport sector, the two crucial contributors to emissions, TGC EMC will support the operationalisation of their transition through technology and knowledge transfer as well as policy, regulatory, and business model development. The programme will put clear emphasis on sector coupling to encourage the tackling of key barriers that are currently slowing down the energy transition. This cross-sector support will translate into demonstration of hands-on solutions to showcase the feasibility of cross-sector transformation for replication as well as upscaling of best-practices in city-context throughout Thailand. In the so-called City Lab, the TGC EMC will support the implementation of innovative technologies through piloting in real life conditions. Since the project supports ambitious mitigation and decarbonisation efforts, another working area of the programme is to enable partner organisations to monitor future greenhouse gas (GHG) reduction in the energy, transport, industry, and biomass sectors. TGC EMC will provide trainings on Measurement, Reporting, and Verification (MRV) to enable partner organisations in updating relevant sector Nationally Determined Contribution (NDC) roadmaps towards decarbonisation pathways. Finally, the project will provide significant support in the field of climate finance. The Thai Climate Finance Initiative ThaiCI will provide seed funding to a number of local projects along with capacity development to both, funding managers and potential recipients. Setting up the ThaiCI as a new climate financing scheme under the Environment Fund of ONEP will moreover enhance climate action at sub-national level as well as strengthen capacities to finance and develop climate projects and to leverage additional domestic and international resources.

To gain acceptance and facilitate smooth implementation of measures in all target sectors, stakeholder dialogues with a broad range of representatives from public institutions, private sector, civil society, and academia are an integral part of TGC EMC planned activities. The project will therefore set up a cross sectoral national stakeholder platform to engage relevant actors in the discussion and inform decision makers on issues related to climate-neutral energy system, sector transition, and decarbonisation.

OBJECTIVE



Key actors in Thailand become empowered in the planning and implementation of transformative activities in the energy, transport and industry sectors in line with the Government's 2050 carbon neutrality objective.

APPROACHES



The project supports Thailand's efforts to reach carbon neutrality by 2050, focusing on integration and decarbonisation of the energy, transport, industry, and biomass sectors.



TECHNICAL KNOWLEDGE

Promoting the power and transport transition through technology and knowledge transfer, such as strategic planning for transition to clean energy and development of Smart Grid infrastructure to support renewable energy in the future.



POLICY & REGULATION

Providing advice on the development or improvement of policies, regulations, and market frameworks that lead to transitioning to clean and sustainable energy for both producer and consumer sectors, including power, transport, and industrial.



PILOT SOLUTIONS

Testing guidelines from the project's technical studies in a City Lab context, a pilot area connecting sectors from electricity production, transport, industry to agriculture.



FINANCING

Providing financial support through the Thai Climate Initiative or ThaiCI, a seed funding financial mechanism established to support climate change projects as well as capacity building for GHG reduction and climate change adaptation projects.

OUTPUTS



OUTPUT 1

Technology options to decarbonise the power, transport, and industry sectors are further developed and relevant stakeholders are empowered to utilise them.

OUTPUT 2

Recommendations for new or improved policy, market, and regulatory framework that support accelerated system transformation in the energy, transport, and industry sectors are developed.

OUTPUT 3

Pilot solutions accelerating change towards carbon neutrality in energy, transport and industry sectors are successfully tested in the City Lab.

OUTPUT 4

Thai Climate Initiative (ThaiCI) serves as financial mechanism to promote and enhance subnational climate actions in Thailand.

BENEFICIARIES



- Key decision makers and technical staff of relevant ministries and agencies
- Operators and companies from the power and transport sectors
- Industries in food and beverage, chemical, paper, and cement subsectors
- Farmers, group of farmers, and biomass power plants
- City administrations, universities, institutions, companies, civil society groups engaged in the City Lab
- Government agencies, local administrative authorities, public organisations, academic institutes, non-governmental organisations (NGOs) and private sectors are the target group of ThaiCI

COMPONENTS OF TGC EMC ○●●○

RENEWABLE ENERGY

Facilitate the energy transition by supporting the transformation of the energy system into one that is more flexible and capable of integrating complex cross-sector demands, and capable of achieving ambitious greenhouse gas (GHG) mitigation targets.



TRANSPORT

Improve framework conditions for enhancing EV investment, electrifying public transport fleets, and advancing sharing business models. This includes enhancing policies, regulations, incentive schemes, knowledge, awareness, technology, and innovation.



INDUSTRY

Energy efficiency (EE) contributes clearly to strategies for energy security (through demand side management) and mitigation actions by defining and promoting energy efficiency measures in key industries through enhanced technical and policy framework to achieve the goal of decarbonisation.



BIOMASS

Biomass to energy contributes to a sustainable energy transition in Thailand, which aligns with its carbon neutrality by 2050 vision and its Bio-Circular-Green Economy (BCG) concept. In addition, biomass to energy contributes to better air quality management and improving incomes of small-scale farmers.



FINANCING

A new climate financing scheme is set up to implement actions supporting NDC, NAP, and Climate Change Master Plan at sub-national level while capacities are strengthened to develop and finance climate project and to raise additional domestic and international resources towards climate actions.



PROJECT PARTNERS



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PROJECT DURATION

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FINANCED BY

The International Climate Initiative (IKI) under the Ministry for Economic Affairs and Climate Action of Germany (BMWK)



COUNTRY

THAILAND



MORE INFORMATION



www.thai-german-cooperation.info

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