

Catalyzing the Energy Transition in the Philippines

A Strategic Narrative for Sustainable Development and Decarbonization

Basis of the Global Energy Transition: As the world pivots away from fossil fuels towards sustainable energy sources, there is a concerted effort to expand the use of wind, solar, geothermal, hydro and biomass. Renewable energy (RE) expansion and increasing energy efficiency not only is key to mitigating climate change, aligning with the goals of the Paris Agreement to limit global warming to below 1.5°C, but is also the economically smart move as RE is now more cost effective than traditional power sources. Global initiatives also address the need for universal access to energy, particularly in developing countries with rapidly growing populations and urbanization resulting in increased energy demands.

Energy Transition in the Philippines: The Philippines, an archipelagic nation with over 2,000 inhabited islands, faces distinct challenges in its energy transition. The government has outlined its goals in the **Philippine Energy Plan (PEP) 2023-2050** and the **Nationally Determined Contributions Implementation Plan (NDCIP)**. These frameworks aim to enhance the country's goals to increase energy efficiency, reduce reliance on fossil fuels and increase the share of renewables in the energy mix. For the first time, the 2023-2050 Philippine Energy Plan includes a dedicated section on energy transition, solidifying the administration's commitment to decarbonizing the sector. The plan prioritizes wind and solar energy due to their technological maturity and cost-effectiveness, with energy storage playing a key role in addressing their variability. By 2050, renewable energy is projected to constitute more than 50% of the energy mix.

Key Challenges in Achieving Renewable Energy Goals: Despite ambitious targets, several barriers must be overcome:

 Grid Interconnection & Smart Grid Development Modernizing infrastructure for seamless renewable integration.	 Administrative Procedures Streamlining processes at national & local levels to avoid delays.
 Power Procurement by Distribution Utilities Improving efficiency and transparency in energy sourcing.	 Financing of RE Projects Securing investments and funding mechanisms for renewable energy.
 Capacity Building for LGUs Empowering local governments through training and technical support.	 Electrification of Remote Islands Expanding energy access to off-grid and hard-to-reach areas.
 Affordable Energy Access (RA 11646) Ensuring fair pricing and access to clean energy for all.	

Addressing these challenges requires innovative solutions to establish a decentralized, renewable energy system that provides sustainable power nationwide.

GIZ in the Philippines – A strategic partner: For over 50 years, GIZ, wholly owned by the German government, has supported Philippine development through international expertise, local partnerships, and engineering know-how. GIZ plays a key role in the country's energy transition by focusing on capacity building, policy support, and fostering renewable energy investments.

GIZ Supports Sustainable Energy Systems Globally: GIZ supports governments worldwide in transitioning to sustainable energy systems. In countries like Vietnam (renewables), Indonesia (Just Energy Transition Partnerships – JETP), China, Mexico and Thailand (hydrogen), GIZ promotes cutting-edge energy solutions. In the Philippines, GIZ implements various projects that promote clean energy technologies, efficient transport systems and energy access for remote communities. GIZ also engages in local capacity-building initiatives, such as training programs for engineers, technicians and government officials on energy efficiency and the development of renewable energy systems. GIZ collaborates with key agencies like the Department of Energy (DOE) and local banks to provide financial tools that enable the private sector to invest in renewable energy.

German Engineering and Private Sector Engagement: The cornerstone of GIZ’s strategy lies in harnessing Germany’s technology, Philippine Government partners as well as the engagement of private and academic sector engagement. German engineering is at the heart of many renewable energy solutions worldwide, from advanced hydrogen technologies to highly efficient renewable energy installations. GIZ can also work to foster collaborations between German private sector actors and local Filipino companies to accelerate renewable energy adoption in the Philippines.

Renewable Energy Access for the Philippines’ 2,000+ Islands: GIZ has worked on numerous innovative energy solutions globally, which can help to bring sustainable and reliable power to the Philippines’ most remote islands. Many projects emphasized decentralized renewable energy systems, solar photovoltaics (PV), hybrid systems and microgrids, with assistance provided in the form of technical assistance to stakeholders in achieving electrification goals.

The Triple Breakthrough: A Renewable Energy Future: A vision for the Philippines revolves around three key breakthroughs:  TECHNOLOGICAL INNOVATION Advancing solar, wind, and hydrogen energy with microgrids and hybrid systems to power small islands sustainably.  POLICY AND REGULATORY SUPPORT Supporting policies that attract renewable energy investments and align with national climate goals.  INCLUSIVE GROWTH Making clean energy accessible and affordable for vulnerable communities while creating green jobs.	Future Directions for GIZ: Looking ahead, GIZ plans to expand its efforts to include: 1. Distributed RE Solutions: Supporting utilities in managing grids and adopting models like virtual power plants. 2. Sector Coupling: Electrifying transport, industry, and parts of agriculture. 3. Hydrogen: Promoting green hydrogen for hard-to-electrify sectors. 4. Private Sector Mobilization: Linking investors with local enterprises. 5. Capacity Building: Training Filipino engineers, technicians, and policymakers. 6. Energy Access: Delivering decentralized renewable energy to underserved islands.
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GIZ’s work in the Philippines aligns with global efforts to achieve a just and inclusive energy transition. By focusing on innovation, policy support and capacity building, GIZ continues to help the Philippines transition to a renewable energy future, essential for addressing climate change and promoting sustainable economic growth.

Project References

[Clean, Affordable and Secure Energy for Southeast Asia \(CASE\)](#) (2020 – 2027)

Donor: International Climate Initiative BMWK

Countries: Indonesia, Philippines, Thailand, Viet Nam **Lead Agency:** Philippine Department of Energy

CASE uses existing data and collects more information to develop an evidence-based narrative that will drive policies towards energy transition. This is implemented through a joint fact-finding approach with experts and stakeholders. CASE Philippines will assist distribution utilities to test new power procurement methods to ensure that least-cost RE options are integrated in their power supply mix.

[Cool Contributions Fighting Climate Change \(C4II\)](#) (2021 – 2024)

Donor: International Climate Initiative (BMWK) **Countries** Philippines, Grenada, Costa Rica **Lead Agency:** Department of Environment and Natural Resources

C4II centered on a sustainable approach with strong multiplier effects. Best practices and tools from C41 will be shared through replicable blueprints and guidelines—such as sector-specific NDCs or a roadmap for introducing Minimum Energy Performance Standards (MEPS). These proven approaches will be systematically adapted to other regions, helping raise global awareness of Green Cooling.

[Promoting the transition to sustainable transport in Asia \(NDC Transport Initiative for Asia\)](#) (2019-2025)

Donor: International Climate Initiative (BMWK) **Countries:** China, India, Vietnam, Thailand, Philippines **Lead Agency:** China Ministry of Ecology and Environment, Department of Atmospheric Environment; India National Institute for Transforming India (NITI Aayog); Viet Nam Ministry of Transport, Department of Science and Technology

The Programme supports NDC implementation in transport, promotes long-term climate strategies, and aims to achieve the 2025 NDC milestone. Through regional events, media, and publications, it raises awareness and, via initiatives like the Council for Decarbonising Transport in Asia and targeted efforts in Thailand and the Philippines, advances regional transport decarbonization strategies.

[Green Economic Development](#) (2013 – 2016)

Donor: German Federal Ministry for Economic Cooperation and Development **Country:** Philippines **Lead Agency:** Department of Trade and Industry

The Project was active in Information and awareness raising on green economic development, Business promotion and matchmaking and creating a green policy framework for the Department of Trade and Industry (DTI).

[EU-Philippines Access to Sustainable Energy Programme \(ASEP\) - Technical Assistance](#) (2016 – 2019)

Donor: European Union **Country:** Philippines **Lead Agency:** Philippine Department of Energy

The ASEP supported the Philippine Department of Energy (DOE) by providing policy advice, planning tools, and targeted implementation support. ASEP helped address regulatory and administrative barriers to achieve electrification goals and build a sustainable electricity market.

[Cities – Environment – Transport in the ASEAN region](#) (2013-2018)

Donor: German Federal Ministry for Economic Cooperation and Development **Countries:** Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Viet Nam **Lead Agency:** ASEAN Secretariat

The Programme's modules targeted reductions in both pollutants and greenhouse gases. Measures like improving energy efficiency in land transport and reducing port emissions not only lowered fuel use but also cut local pollution, enhancing air quality and reducing marine and coastal pollution.