



# Workshop Summary: unlocking finance and investment for offshore wind and energy efficiency in public buildings in the Philippines

6 and 7 March 2024, Manila, Philippines

The OECD [Clean Energy Finance and Investment Mobilisation \(CEFIM\)](#) Programme, in collaboration with the Department of Energy (DoE) of the Philippines and other government institutions, has developed a [Clean Energy Finance and Investment Roadmap of the Philippines](#), which focuses on key actions and recommendations needed to unlock finance and investment in offshore wind and energy efficiency in public buildings. The OECD CEFIM Programme and the Department of Energy of the Philippines jointly hosted an event on 6 - 7 March in Manila to launch the report, with a back-to-back workshop on energy efficiency and offshore wind finance and investments. The event gathered over 200 participants. This document provides a summary of the discussions held during the two-day event.

In recent years, the Philippines has demonstrated a growing commitment to addressing climate change and transitioning towards a low-carbon economy. The Philippines notably aims to more than double renewable power generation by 2040 under its National Renewable Energy Program 2020-2040, while aiming to double the advancement of energy efficiency by 2030, as reflected in the Energy Efficiency and Conservation Act.

Thanks to the commitment of the Government of the Philippines to achieve these targets, including by setting incentives, auctions and removing restrictions to foreign direct investment in the energy sector, the Philippines ranks fourth globally among the most promising emerging markets for renewables investments.

Achieving these targets will require unlocking investments of over 300 billion USD between now and 2040. The OECD, through its [Clean Energy Finance and Investment Mobilisation \(CEFIM\)](#) Programme, works with selected emerging economies to strengthen domestic enabling conditions to attract finance and investment in clean energy, including renewables and energy efficiency. Recognising the scale of the challenge to mobilise clean energy finance and investment in the Philippines, the OECD CEFIM Programme has collaborated with the Department of Energy (DOE) of the Philippines for more than two years to develop a [Clean Energy Finance and Investment Roadmap of the Philippines](#).

The Roadmap provides a strategic plan that brings together government and private actors to agree on key priorities and actions needed to unlock finance and investment in offshore wind and energy efficiency in public buildings, two sectors identified as priority by the DOE.

Across offshore wind and energy efficiency, enhancing cross-government cooperation, integrated planning, skills development and inclusivity are critical to maximise local content and benefit local communities. Building skills, capacity and certification of a well-trained workforce of technicians, engineers, financiers and service providers can help to accommodate a vibrant clean energy supply chain in the Philippines.

## Energy efficiency in public buildings

With an energy efficiency market still in a nascent phase, unlocking energy efficiency investments in the Philippines is critical. The government has adopted a strategy to lead by example and drive market change by demonstrating successful approaches, systems and technologies to improve energy efficiency in public buildings. The Government Energy Management Programme (GEMP) was set up to fast-track energy efficiency in the public sector. Public buildings present a significant opportunity to reduce energy consumption, lower operating costs and mitigate carbon emissions.

Four priorities for incentivising higher energy efficiency amongst local government units (LGUs) emerged from the Roadmap process:

- First, revising public procurement rules to accommodate energy efficiency projects with a payback period exceeding one year, including projects that combine the offering of both products and services.
- Second, evaluating budgetary constraints of Local Government Units, the in-house technical knowledge and capacity that are needed to implement the National Energy Efficiency and Conservation Plan to 2050.
- Third, establishing a project pipeline for energy efficiency investments in the public sector via a designated aggregator entity to attract private equity investments.
- Fourth, improving data collection and transparency to enhance trust in the energy efficiency business model and improve access to funding from external non-government sources.

### **Session 1: Policy approaches, smart technology and digital solutions that have proven effective to accelerate energy efficiency in public buildings.**

The updated National Energy Efficiency and Conservation Plan for 2023- 2050, has set very ambitious national targets and approaches to mainstream energy efficiency into local government units. Yet to date, just under half of local government units are compliant with the 10% energy consumption reduction target set under the Government Energy Management Program (GEMP). As such, the key question is how to move from targets to implementation.

During the workshop, participants discussed the global commitment made at COP28 under the UAE Consensus to double the global average annual rate of energy efficiency improvements by 2030. The International Energy Agency (IEA) affirmed that this goal is attainable for all countries with the support of conducive policies and existing technologies. However, the challenge lies in consistently realizing annual energy savings. Addressing this requires multi-sectoral action, particularly in the buildings sector. Participants highlighted the importance of a comprehensive policy package comprising regulations, information dissemination, and incentives to unlock energy efficiency in buildings, emphasizing the need for a people-centric and inclusive approach.

International financial institutions, including the Asian Development Bank, were identified as crucial actors in providing technical assistance and financial support for energy efficiency initiatives in buildings, including facilitating energy audits.

Industry representatives outlined key challenges faced in promoting green building development in the Philippines. These challenges include a lack of information for the private sector, shortage of energy

efficiency practitioners, a shift towards AI and digital technologies requiring updated skill sets, insufficient collaboration between stakeholders and local governments, and broader administrative and regulatory barriers.

To unlock energy efficiency in public buildings in the Philippines, several priorities were identified:

- Establishing robust policies for training and educational programs by the government to support the green building industry.
- Enhanced public-private cooperation to foster dialogue, build capacity, and provide technical support for green building projects, including energy audits.
- Regular updates to regulations to align with advancements in technology, with a focus on leveraging AI and digitalization for improved data accessibility.
- Introducing tailored certification levels for different energy ratings integrated into zoning and planning processes at the local government level.
- Exploring various business and financing models, including engaging private sector entities through Energy Service Companies (ESCOs) and traditional loans, necessitating regulatory adjustments.
- Recognising the important role of financial intermediaries, such as commercial banks, not only in funding energy efficiency projects but also in facilitating energy audits.

### **Session 2: Overcoming the project financing challenge to accelerate progress in energy efficiency in the Philippines.**

Discussions followed on the key challenges and priorities regarding the mobilization of financing for energy efficiency projects in Philippine buildings, with a focus on innovative de-risking financing models. Key challenges identified in developing investment-grade energy efficiency projects include:

- Limited access of Energy Service Companies (ESCOs) to commercial finance, with 97% facing constraints due to credit limits. This underscores the need for a diverse mix of financing instruments, encompassing both equity and debt options. Comparable experiences from countries like India highlight persistent high upfront investments even with access to commercial lending, with previous attempts to establish a super ESCO in the Philippines proving unsuccessful.
- Complex approval processes, financial engineering, and high transaction costs inherent in energy efficiency projects, spanning from project initiation through to post-implementation monitoring.
- Difficulty in aggregating smaller-scale projects to access financing and mitigate portfolio risk.
- Constraints in equity and off-balance sheet financing for project developers, particularly in the private sector.
- In the public sector, challenges include disincentives for first movers among local government units (LGUs) and a fragmented approach between various programs, including the Government Energy Management Program (GEMP), and other demand-side management initiatives.

To unlock financing for energy efficiency in public buildings in the Philippines, several key priorities were highlighted:

- Utilising development finance mechanisms to attract private capital, incorporating blended finance models coupled with technical assistance, drawing insights from international best practices and local experiences.
- Aggregating energy efficiency projects to enhance access to financing, employing pooling and other aggregation instruments to bolster equity flows in a sector heavily reliant on debt financing.

- Operationalising strategic regulations allowing Energy Performance Contracts (EPCs) and Public-Private Partnerships (PPPs), including under the GEMP, at the local government level.
- Collaborating closely with ESCOs and selected LGUs to pilot transactions in PPPs under the Philippines Build-Operate-Transfer (BOT) law for large-scale government-led investment initiatives. Lessons gleaned from these flagship projects can inform replication efforts across other LGUs and encourage confidence in the market.
- Recognising the role of financial innovation and engineering to trigger market demand. This includes implementing simple accounting rule adjustments in the public sector to better recognize future savings as revenue streams, mirroring successful examples observed in Thailand.
- Beyond public buildings, addressing energy-intensive infrastructure such as public lighting to attract private sector capital and cultivate a robust marketplace for energy efficiency equipment.

## Offshore wind

Offshore wind holds immense potential to drive low-carbon transition forward in the Philippines, while bringing additional investments in the local economy such as ports and infrastructure upgrades, direct and indirect jobs, as well as re-skilling and knowledge transfer. With an estimated offshore wind potential of 178 Gigawatts, the Philippines is blessed with a vast and untapped resource that can power the country sustainably for generations to come. However, realising this potential requires overcoming several challenges, including policy and regulatory barriers, financing constraints and infrastructure limitations. Three priorities for unlocking offshore wind finance and investments in the Philippines are:

- First, designing a regulatory framework for offshore wind that provides the right investment signals for investors and allows for projects to get built on time, cost effectively and with maximum local benefits.
- Second, synchronising the buildout of offshore wind projects with the expansion of transmission and port infrastructure.
- Third, recognising the role of finance in supporting cost reduction pathways for offshore wind and fostering synergy and collaboration between international development finance and private finance.

### **Session 1: Policy and regulatory priorities to unlock financing for offshore wind projects, including through auction design.**

This session will look at offshore wind regulatory frameworks, including auction design, that provides the right investment signals for investors and allows for projects to get built on time, cost effectively and with maximum local benefits.

Amidst the global challenges facing the offshore wind sector, including rising supply chain costs and higher interest rates, many governments are seeing delays or cancellations of projects of national interest. Global project costs are up 39% in the last four years, with cost inflation estimated to add another USD 280 billion in capital expenditure in the next decade. This has significant implications for the entire supply chain, which does not stop at developers and equipment manufacturers, but also includes a very vibrant services sector of banks, insurers, investors, consultants, vessel and other service providers. Policy and regulations have a significant impact on the cost of finance.

The British Ambassador to the Philippines, Hon. Laure Beaufilet, gave her opening remarks on UK's journey to becoming one of the largest offshore wind markets and home to the first floating offshore wind farm (still a pre-commercial technology). She talked about the full spectrum of support that the UK has developed as part of its domestic policies, providing regulation, innovation, education and finance. These include a proactive approach to industry collaboration, the development of necessary infrastructure and services

(ports, grids, supply chain, capacity building and a lifetime skills guarantee scheme), and finance (public banks with green mandate, venture capital funds, export credit agencies and capital market instruments).

The British Embassy also has a very active role in the Philippines, where they are trying to replicate the UK success story. The UK chairs the Energy Transition Council<sup>1</sup>. Ongoing projects include maritime spatial plan development, a permitting framework for the DOE, support to the Philippine stock exchange for clean energy Initial Public Offerings (IPOs).

The discussion continued with the offshore wind regulatory frameworks that allow projects to get built on time, and with the lowest possible cost for governments, developers and society. Participants stressed on the importance of timing and getting things right, especially for the first projects that will set the pace and the track record for the market. Frontloaded auctions, visibility on volumes, timelines and pricing are important for developers. Offshore wind has a very complex supply chain. It takes on average 7-10 years to build an offshore wind farm. But decisions related to factories, manufacturing facilities and supply chain infrastructure need to come before that. This is particularly important in view of the busy global auction schedule and the competition it has led to for materials, components, transportation and installation vessels, and high voltage cables for transmission lines to shore.

### **Session 2: Delivering on critical port infrastructure to support an emerging offshore wind market in the Philippines.**

This session looked at interventions needed to deliver critical port infrastructure, the effectiveness of a multiport strategy in expediting investments, and stakeholder collaboration in boosting planning and investor confidence.

Senior speakers addressed the need for robust port infrastructure in the Philippines to support the growing offshore wind market, for both fixed and floating installations. Onshore support facilities, mostly to strengthen and modernise port infrastructure, will require significant investments for the Philippines to realise its offshore wind potential (both fixed and floating) and for the technologies to reach economies of scale. Currently, there is no single port or industrial site in the Philippines that can deliver the full range of services to build large scale offshore wind projects. The government has identified ten priority ports and is currently looking at interventions needed to deliver critical port infrastructure.

A multi-port strategy is being considered, where different ports take on specific roles during the project life cycle of an offshore wind farm. Collaboration among developers, port authorities, governmental bodies, and development partners was emphasized throughout planning, financing, construction, and operations. With port upgrades typically taking three years to develop, here too, timing is crucial.

A supply chain approach is advocated, particularly for floating turbines. Various collaboration models for port upgrades were discussed, including full public upgrades, shared upgrades between port owner and developers, public private partnerships through the BOT law, and full concessions, with port owners seeking experienced partners for operation. Participants also highlighted the importance of biodiversity considerations in strategic infrastructure.

### **Session 3: Business models for grid expansion and upgrade to accommodate new investments in offshore wind in the Philippines.**

This session looked at stakeholder collaboration from an early stage to minimise grid build-out delays, secure the financing for additional grid capacity, and planning flexibility alongside long-term grid development targets.

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<sup>1</sup> An initiative bringing together over 40 governments and institutions to offer political, financial, and technical leadership in the power sector. It currently has 11 partner countries, including the Philippines.

To be able to raise low-cost finance, offshore wind projects in the Philippines would need to see a certainty of demand for power and the ability to deliver the power to where is needed. As such, any progress made in offshore wind development, will need to be matched with developments in transmission grid infrastructure. Accelerating the grid build out and optimising its use, will be critical in the Philippines for integrating offshore wind in the electricity mix.

The IEA presented the global context on the investment needs and challenges facing transmission systems to achieve the clean energy transition. Driven by changing dynamics in both demand and supply for electricity, investments in transmission and wider electricity networks will need to ramp up significantly over the coming decades. Globally, grid investment needs to double by 2030, from around USD 300 billion to over USD 600 billion. With many countries placing grids high on their clean energy transition priorities, early planning for emerging markets is crucial to avoid supply chain bottlenecks and shortages.

The planned offshore wind capacity in the Philippines can require an additional 348 billion Philippine Pesos in grid investments. Participants highlighted that grids are a solvable problem with proper planning and investments. But the time to act is now, and the grid plans will have to be synchronised with the developments in offshore wind projects and the planned port upgrades.

Discussions then followed on the need for strategic and proactive transmission planning, with increased responsibilities for TransCo and the DOE on a vision for grids fit for the country's renewable energy potential and the power development plans. TransCo's role in identifying suitable transmission lines, matching demand with project locations, reducing transmission costs via concessional financing, standardizing construction costs, and implementing smart technologies were also discussed.

Challenges to incentivise investments in a whole of grid concession such as in the Philippines were highlighted, with potential evolutions on this business model and governance changes that can improve collaboration between the DOE, the grid owner (TransCo) and the grid operator (NGCP, a 40% Chinese owned grid concessionaire). Developers also shared their views on changes and adaptations to the local grid code to accommodate the specifics of offshore wind projects.

### **One-stop shop approach to planning and permitting.**

Workshop Day 2 concluded with updates on the one-stop-shop approach that the government has adopted through an Executive Order that the President has issued. It is a challenging task that requires the coordination of over 20 agencies nationwide with around 70 different permits to process for one project or application.

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## Useful links, articles and reports

World Bank Options for Financing EE in Public Buildings in the Philippines -

<https://openknowledge.worldbank.org/entities/publication/f43c2538-5b53-5446-9b6f-629c95b175fe>

Delivering energy efficiency through local government units in the Philippines

<https://asiacleanenergyforum.adb.org/spotlight-session-delivering-energy-efficiency-through-local-governments/>

OECD Clean Energy Finance and Investment Roadmap of the Philippines

<https://www.oecd-ilibrary.org/sites/7a13719d-en/index.html?itemId=/content/publication/7a13719d-en>  
(full report)

<https://www.oecd.org/environment/cc/cefim/philippines/policy-highlights-clean-energy-finance-and-investment-roadmap-philippines.pdf> (policy highlights)

IEA Electricity Grids and Secure Energy Transitions

<https://www.iea.org/reports/electricity-grids-and-secure-energy-transitions>

OECD Mainstreaming Biodiversity into renewable Power Infrastructure

[Clean Energy Finance and Investment Roadmap of the Philippines](#)