

## Readiness Assessment to Implement Net-Zero Energy Building Program of Government Buildings in the Philippines

**Authors :** Patrick T. Aquino, Jimwel B. Balunday, Cephas Olivier V. Cabatit, Mary Grace Q. Razonable

**Abstract :** In 2023, the Philippine Department of Energy (PDOE) published the National Energy Efficiency and Conservation Plan (NEECP) and Roadmap 2023-2050 to be the basis of a comprehensive program for the efficient supply and economical use of energy. The building sector, as one of the most energy-intensive sectors, shall conform to the energy-conserving design to reduce the use of energy. The concept of Net-Zero Energy Building (NZEB), and its definitions promote to improve energy efficiency of the buildings. The PDOE partnered with Meralco Power Academy to survey and conduct focus group discussions to establish the readiness into NZE-aspiring buildings of government entities. This paper outlines important NZEB principles, best practices from other countries, issues and gaps relating to energy management program, and the recommendations on the development of a framework for NZEB under government building in the Philippines. Results revealed the limitation on specific data to establish a baseline building energy efficiency performance index and significant energy uses; the need to update the Guidelines for Energy Conservation Design of Buildings, including NZEB definition and requirements; appropriate enabling infrastructures and programs to transition government buildings into NZE-aspiring buildings to Nearly Zero Energy Buildings by 2050.

**Keywords :** NZEB, energy efficiency, buildings, Philippines

**Conference Title :** ICEEE 2024 : International Conference on Energy Efficiency and Engineering

**Conference Location :** Rome, Italy

**Conference Dates :** March 04-05, 2024