



BUILDING SECTOR BRIEF: VIETNAM

Status: April 2019

In 2012 Vietnam adopted its **National Green Growth Strategy (NGGS)**. It includes strategies for green construction and sustainable urbanization and is linked to the national climate change and economic policy agendas. In its 2016 **Plan for Implementation of the Paris Agreement (PIPA)**, the government defined various mitigation actions for the construction sector in 2021-2030.

CURRENT CLIMATE TARGETS

Vietnam's **Nationally Determined Contribution (NDC)** aims to unconditionally reduce GHG emissions in 2030 by 8% and conditionally by 25%. NDC mitigation goals focus on the residential, commercial and services sector.

Principal targets include:

- Establishment of a national GHG inventory system and MRV systems,
- NAMA development and implementation,
- Carbon credit projects according to the Verified Carbon and Gold Standard,
- Technologies to reduce GHG and
- Access to national and foreign development and climate finance.

BUILDINGS SECTOR GROWTH

The residential sector is rapidly growing: there is a strong demand for new social housing and

affordable mid-income housing due to a growing middle-class population. In 2018, the total housing stock amounted to 2,293 million m². To meet the high demand, about 110 million m² of new housing stock need to be constructed in 2019-2020.

There is also a strong growth projection for the **non-residential sector**. In 2017, in Ho Chi Minh City shopping malls, super markets and modern retail space increased by 45,000 m² and in 2018 by another 82,000 m². In Hanoi, in 2017 and 2018 together new sales space increased by 260,000 m².

The government plans to invest around US \$ 8.6 billion in rural infrastructure and new schools, medical facilities by 2020. In Hanoi and Ho Chi Minh City mainly upscale apartments and hotels are build as high-rise buildings. International hotel chains demand high EE standards. By 2020, the hotel capacity is expected to increase by 580,000 beds.

Growth projections per subsector by 2020



• Commercial subsector will present the largest growth. Shopping malls and supermarkets.

FINANCING AND REAL ESTATE DEVELOPMENT

The construction and real estate business is dominated by large state owned corporations. The large corporations are getting internationally positioned and many have both the required capital and the business approach to be considered as clients for international construction and planning companies. Private companies are slowly gaining in importance.

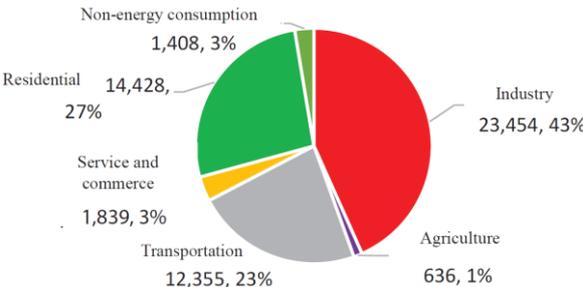
However, international large-scale climate finance is strongly needed to initiate the deployment of ambitious energy efficiency measures in buildings.

BUILDING SECTOR ENERGY DEMAND

The electricity in **administrative and residential buildings** is subsidized with concessional tariffs. In the period 2010-2016 the demand grew at an average 9.3 % per annum and accounted for an average share of 9.25 % of the entire national power consumption. The increase in electricity use is partly caused by

the transition from other forms of energy such as coal, oil or biomass into electricity, mainly used for cooking.

Final energy consumption in 2015 (million TOE, %)



Source: Institute of Energy: Vietnam Energy Statistics 2014. 2016

Commercial buildings have the highest growth rate of electricity and energy consumption at an average of 16.4 % per annum in the period 2010-2016. Electricity covers a major part in the energy use mix und the electricity demand increased significantly. There is an urgent need to enforce energy efficiency building codes in commercial buildings.

OPPORTUNITIES FOR ACTION

The following areas present opportunities for climate change mitigation:

- As a top priority, the Vietnamese government addresses the construction of **social and affordable mid-income housing**. Though the government provided state funds for social housing, **additional long-term financing** is required for credit lines supporting both housing investors and end users. These credit lines should be complemented by energy efficiency measures for ambitious green housing designs.
- **Basic EE measures** may include using solar water heaters to replace electric (or gas-fired) heaters, improving the design and materials for new buildings to reduce the electricity demand for air cooling, ventilation and lighting, and promoting high performance electric appliances replacing low performance ones.
- The **Vietnam Energy Efficiency Building Code (VEEBC)** provides a set of guidelines for building efficiency. Though it is mandatory for all buildings with a Gross Floor Area over 2,500 m², compliance is still low and needs to be fostered.
- The **Law on Economical and Efficient Use of Energy** mainly targeted designated buildings which consume over 500 TOE annually or a minimum of 3 million kWh per year, which does not cover all buildings subject to the VEEBC. Thus, policy advise should focus on extending the building coverage, increasing the ambition and strategies on ensuring the compliance.
- **Governance:** to align the mitigation efforts of the different subsectors, NDC implementation requires a strong sector coordination under the guidance of the Ministry for Environment and Natural Resources (MONRE).
- There is a need for **specific technical support to construction developers** to increase their engagement and leverage private capital. Incentives for developers could be provided, for example, by prioritizing construction permits for energy efficient projects. Long authorization times often generate significant economic losses in the construction business.



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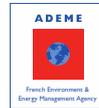


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