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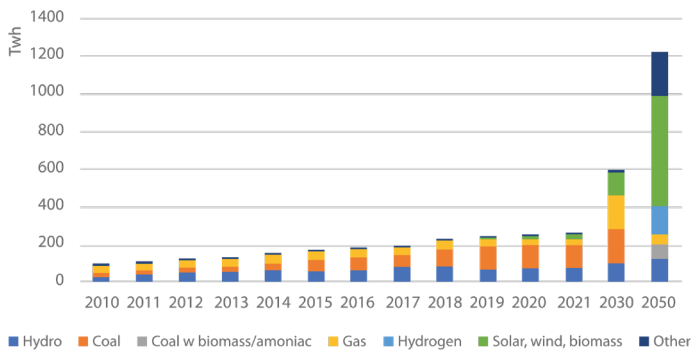


# Climate Protection through Sustainable Bioenergy Markets in Viet Nam (BEM)

## Context

### Energy Sector in Viet Nam

Viet Nam's fast-growing economy has rapidly increased energy demand throughout the country over the past decades. Between 1990 and 2021, electricity production in Viet Nam increased 30-fold, from 8.6 TWh to 256.7 TWh – with dramatic further demand growth estimated until 2050.



Annual electricity production in Viet Nam

Source: EVN NLDC 2021 and Draft PDP VIII updated in November 2022

Through 2021, Viet Nam's overall installed power capacity was 78,200 MW. Conventional sources are dominant including coal (32% installed capacity), hydro (22%) and natural gas (10%). However, the share of wind, solar, biomass and small hydro has risen to 32%.

### Bioenergy in Viet Nam

Viet Nam has strong potential for bioenergy as the available biomass resources in the country include post-harvesting and post-processing agro-forest residues and waste such as bagasse, straw, rice husk, coffee husk, coir, wood residues and other agricultural/industrial byproducts, as well as livestock waste for biogas.

To facilitate this, the Vietnamese Government has promulgated key policies and support mechanisms on biomass energy development.

The Prime Minister issued the Decision No. 24/2014/QĐ-TTg on the support mechanism for the development of biomass power projects in Viet Nam, to achieve the goals set by the revised National Power Development Plan VII. Following the decision, electricity from cogeneration sugar mills using bagasse was purchased by the Viet Nam Electricity (EVN) at 5.8 US cents/kWh, while electricity generated from other feedstock such as rice husks, straw and wood chip was bought by EVN at the avoided cost tariff.

In 2020, the Government amended the aforementioned decision and introduced the new feed-in-tariff (FIT) for biomass power projects (according to Decision No. 08/2020/QĐ-TTg dated 5 March 2020) and revised the Power Purchase Agreement (PPA) for biomass power projects. The new FIT has increased to 1,634 VND/kWh (equivalent to 7.03 US cents/kWh) for combined heat and power (CHP) projects and 1,968 VND/kWh (equivalent to 8.47 US cents/kWh) for non-CHP projects.

However, the installed capacity of biomass electrical energy in the country stood at only 523 MW as of November 2021. Capacities for an increased use of industrial medium to large-scale biomass energy are still lacking, due to investors' limited access to information, provincial governments' capacity shortage in timely planning and licensing procedures, inadequate capacity of financial institutions and insufficient knowledge on state-of-the-art technologies.

## Objective

The Climate Protection through Sustainable Bioenergy Markets in Viet Nam (BEM) project aims to improve the preconditions for a sustainable use of biomass for electricity and heat generation in the country. The project will focus on strengthening the planning, technical and financial capacities of biomass energy actors in order to realise bankable investment projects.



Operating system at the biomass power plant in central region of Viet Nam  
Photo: © GIZ

Project name	Climate Protection through Sustainable Bioenergy Markets in Viet Nam (BEM)
Commissioned by	German Federal Ministry for Economic Affairs and Climate Action (BMWK)
Project region	Viet Nam
Lead executing agency	Viet Nam's Ministry of Industry and Trade (MOIT)/ Electricity and Renewable Energy Authority (EREA)
Duration	April 2019 – September 2023
Contact person	Nathan Moore <a href="mailto:nathan.moore@giz.de">nathan.moore@giz.de</a>

## Approach

The BEM project has three main Action Areas.

### 1. Legal and Regulatory Framework

This action area will facilitate and support adjustment to the regulatory framework on planning and licensing of biomass energy projects, in particular at provincial level. The project will update or assess governmental stakeholders' needs to facilitate the development of biomass energy, develop strategies for provincial biomass development plans and draft recommendations for the improvement of the approval process of biomass energy investment projects.

### 2. Capacity Development

The project will improve private sector capacities for the development of biomass investment projects as well as enhance financial institutions' capacities to finance biomass energy investment projects. Activities will include the conduct of a capacity-need-assessment for biomass energy consultants, developers and investors; consultation on the design of criteria to assess the bankability of biomass energy

investment projects; and the design for a financing mechanism based on biomass energy financing needs and official development assistance (ODA)/climate funding sources.

### 3. Technology Cooperation

The project will facilitate technology cooperation and networks between Vietnamese and international enterprises, research institutions and universities on the use of biomass for electricity and heat generation. Activities will be match making events, the analysis of subsectors (e.g. in industry, agriculture, food processing), study trips and symposiums.



*Southern biomass power plant  
Photo: © GIZ*

Published by

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH  
Registered offices Bonn and Eschborn, Germany



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As at

December 2022

Photo credits and text GIZ Energy Support Programme

GIZ is responsible for the content of this publication.

On behalf of

German Federal Ministry for Economic Affairs and  
Climate Action (BMWK) through the International  
Climate Initiative (IKI)