Climate Protection through Sustainable Bioenergy Markets in Viet Nam

The Energy Sector in Viet Nam

Viet Nam’s fast-growing economy is the main driver for the rapidly increasing electricity demand throughout the country over the past years. Viet Nam’s annual electricity production increased by more than twenty folds, from 8.6 TWh in 1990 to 198 TWh in 2017. The annual increase in this period was between 9-13%, almost twice as high as the GDP growth rate.

Planned Annual Electricity Production in Viet Nam
Source: EVN NLDC 2018, PDP7 revised 2016

Viet Nam’s overall installed electricity generation capacity was 50.3 GW in February 2019 with the dominant sources for power production hydro power (40%), coal (37.6%), natural gas (18.1%) and imports (2.8%). However, the share of wind, solar and bioenergy was only 1.5% in February 2019.

Biomass Energy Sector in Viet Nam

Viet Nam has a 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 husks, coffee husk, coir, wood residues and other agricultural/industrial by-products.

To facilitate this, the Vietnamese Government has promulgated key policies and support mechanisms on biomass energy development. According to the revised National Power Development Plan VII and the Renewable Energy Development Strategy, Viet Nam aims to increase its biomass energy share in power production substantially: 1% in 2020 to 2.1% in 2030 and to 8.1% in 2050. The Government issued already in 2015 the Circular 44/2015/TB-BCT to regulate the project development, methodology for an avoided cost tariff calculation and Standard Power Purchase Agreement for grid-connected biomass energy projects.

However, the installed capacity of biomass energy in Viet Nam is only 352 MW. Capacities for an increased use of biomass energy are still lacking as follows:

- Investors’ lack of access to information and qualified experts to evaluate biomass energy projects’ full potential and feasibility
- Capacity shortage of provincial governments for a timely planning and licensing procedures
- Inadequate capacity of financial institutions in evaluating biomass energy projects, as well as access to (re-)financing mechanisms.
- Insufficient knowledge on state-of-the-art technologies and respective technology transfer partnerships to catalyze market development.

MOIT/GIZ Energy Support Programme

Through funding from the government of the Federal Republic of Germany, GIZ has been supporting the government of Viet Nam since 2009 in achieving its targets on renewable energy.
The Climate Protection through Sustainable Bioenergy Markets in Viet Nam project aims to improve the preconditions for a sustainable use of biomass for electricity and heat generation in the country. The project will focus more on the improvement of planning, technical and financial capacities of respective actors in the biomass energy sector in order to realize bankable investment projects.

The project is organized with 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 on 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 matchmaking events, the analysis of subsectors (e.g. in industry, agriculture, food processing), study trips and symposiums.