

Huc Wind Project

Huong Hoa, Quang Tri

Context

Vietnam’s energy production and peak load for electricity are growing rapidly with average growth rate 11% during 2012-2018. **Currently, the major power supply is still from fossil fuels with renewable account for lower than 10%.** The number will be double in 2030 according to the revised National Power Master Plan VII.

Quang Tri province has given priorities to attract investment in the energy sector and aimed of turning the locality into an energy center of the country. Up to June 2020, Quang Tri province was approved to develop 689.2MW of wind farm. In which, 30MW has been installed and 60MW will be commissioning in 2021.

Infunde Development has significant experiences to have the management roles in the power sector in Vietnam, including the 1,200MW Nghi Son 2 project and the 1,200 MW Van Phong project. The team have executed landmark utility scale power/infrastructure transactions including one of the first foreign investments in the Vietnam clean energy industry.

Project Highlight

100MW	164M	Jun 2023
Capacity of power output to be completed	US\$ of total project cost	Expected COD

Quang Tri Province, Vietnam

Country and Sectoral Background

In the light of the existing power shortage in Vietnam and in response to climate change in the years to come, green power from renewable energy is taken to be a feasible solution to meet requirements and ensure national energy security and contribute to environmental protection. The Government has currently prioritized and made clear intention to develop renewable energy.

Up to **end of 2020**, total installed capacity of power project reached **69GW**. In which, Solar and wind only accounted for 14% (**Solar: 13%, Wind:1%**). Draft PDP VIII features an increase of nearly 70% in the renewable capacity target from the revised PDP VII. In the longer term, it **targets 127 GW of renewable capacity by 2045**, with solar, onshore wind, and offshore wind accounting for 43%, 31%, and 17%, respectively.

There is a **strong shift toward wind capacity additions**, whose share of the renewable target **has nearly doubled for 2030 and more than doubled by 2045**.

Project Overview

Company:	TBD
Country:	Vietnam
Location:	Ba Tang & Huc communes, Quang Tri province
Sector:	Wind Power
Status:	In development
Timeline:	Expected financial close: Q2 2022
Shareholder(s):	InfraCo Asia

Development Impact



More than 200,000 people will have improved infrastructure access.

When the projects reaches commercial operations. The current limited transportation infrastructure of local communities near the project area will be significantly developed and enhanced once the project operation commences, allowing for improved access to services.



14,000 people under poverty line will have access to the improved electricity infrastructure

According to research of ADB, poverty incidence among Vietnamese in 2016 was estimated at 7%. The successful project will give more opportunity to the poor people to access better electricity infrastructure



Approximately 1.1M tons of CO2 emissions are expected to be avoided.

Reduce conventional fossil-based source by replacing with wind energy. The government of Vietnam's strategy to foster low carbon generation with approximately 7.6 million tons of CO2 emission are expected to be reduced a year.



Provide 740 jobs for the installation and operations of the first-year operation.

During the construction stage, it is estimated that about 740 jobs will be created. In which, approximately 90% of the jobs created is expected to be taken up by male workers due to the heavy works required during construction. These numbers exclude expatriate workers.

Environment and Community



Source: @luolei, Unsplash.com

The Huc Wind Project will be located in Huang Hoa District, a mountainous frontier on the west of Quang Tri Province where mountains and rivers are alternatively distributed and also strongly impacted by strong, dried wind blowing from the southwest.

Land needed for the project will be acquired through negotiated acquisition with landowners. Even though the project will not involve involuntary land acquisition, Infunde Development will ensure that negotiations with landowners are done in compliance with Vietnam's regulations and IFC Performance Standards.

The current limited transportation infrastructure of local communities near the project area will be significantly developed and enhanced once the project operation commences, allowing for improved access to services.

Infunde Development will also ensure environmental risks are well identified, avoided when possible, and otherwise minimized and mitigated.

The project will be one of the first large-scale wind projects developed by foreign developer/investor in Quang Tri province, as well as one of the first InfraCo Invested wind projects in Vietnam. Particularly, the project was self-developed by the Project team, from site identification to financial close and exit. This model can be replicated to other locations and applied for other types of renewable energy projects.

Key Investment Strengths

Supportive Regulatory: Environment includes potential for import tax exemptions, land incentives, and corporate income tax reductions.

Alignment with National Development Plans: Draft PDP VIII features an increase of nearly 70% in the renewable capacity target from the revised PDP VII from 27 GW to 45 GW by 2030. In the longer term, it targets 127 GW of renewable capacity by 2045, with solar, onshore wind, and offshore wind accounting for 43%, 31%, and 17%, respectively.

Strong Wind Resource: Estimated from met masts that have been installed on-site to collect wind data.

Power Market Overview

Consumption: Total energy consumption over the past decade has grown from 10% to 15%, twice as much as the GDP growth, as a result of the rapid economic development.

Demand Drivers: The primary demand drivers include GDP growth, population as well as urbanization growth. There are secondary drivers for each demand sector, such as the elasticity of energy use to GDP growth, industrial production projections, and market penetration rates for space cooling, refrigeration and electric appliances.

Forecasted Demand: With the expected growing GDP and population, the hourly demand per year is forecasted to increase from 30GW in 2020 to 61GW in 2030, 92GW in 2040 and 113GW in 2050 (from Vietnam Energy Outlook 2019).

Supply: Vietnam's energy production and peak load for electricity are growing rapidly with average growth rate 11% during 2012-2018. Currently, the major renewable power supply is hydropower, wind and biomass, solar energy, biogas, and more. The government aims to increase the renewable electricity output from approximately 58 billion kWh in 2015 to 101 billion kWh by 2030.

Infunde's Role

For the project, Infunde Development is leading a number of the development activities including obtaining the necessary licenses, permits and approvals; financial modeling; overall project structuring; community and authority engagement; land acquisition; executing all related technical agreements and Power Purchase Agreement negotiation with the national offtaker, EVN Vietnam Electricity Group and arranging the necessary debt facilities.

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