

### Dedicated, Naturally.

## Vietnam: 144MW Hydropower

Clean electricity generation on the Dong Nai river





# The Project

With an average annual growth rate of approximately 7% over the last decade, Vietnam has emerged as one of the fastest growing economies in South East Asia. Due to its reformed, very dynamic economy and its young population, Vietnam has been projected to become one of the world's largest economies in the 21<sup>st</sup> century. Driven by industrial growth and a rise in residential demand, Vietnam's energy needs are soaring and quad-rupled between 2000 and 2014. The household electrification rate has jumped from 50% in 1995 to 100% in 2017. However, many rural areas still receive low service quality with poor reliability and low voltages.

The increasing energy demand is a major challenge for Vietnam that is primarily met with the installation of new fossil-fuelled power plants. At the same time, Vietnam is particularly prone to the negative impacts of climate change. The country is frequently hit by ravaging typhoons and other extreme weather events and is listed sixth on the Climate Risk Index of the NGO Germanwatch. Developing the renewable energy sector and tapping into the country's vast natural power resources is therefore essential for Vietnam.



## The Project

Located in Dak Nong Province, the project involves the installation of two cascades along the Dong Nai River. The first cascade has two turbines and a total capacity of 82MW. The second cascade also has two turbines and a total capacity of 62MW. The total combined capacity of the entire hydropower plant is 144MW and the project is expected to generate 636,900MWh every year. This clean electricity will then be delivered to the local power grid.

Location: Dak Nong Province, Vietnam

Project type: Renewable Energy - Hydro

Total emissions reductions:  $\ge 555,1001 \text{ CO}_2 \text{ p.a.} \le 3$ 

Project standard: CDM

**Project start:** July 2007

## Sustainable Development

By supporting this project you'll contribute to the following Sustainable Development Goals:





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# SUSTAINABLE G ALS

While focusing on reducing greenhouse gas emissions, all our projects also generate multiple co-benefits. These are supportive of the United Nations Sustainable Development Goals.







### Affordable and clean energy

Hydropower is an emission-free source of energy. By producing hydroelectricity, the project will increase the share of renewable energy in Vietnam. It will also help to bridge the mismatch between energy demand and supply.



### Decent work and economic growth

The project will provide over 1800 jobs during its construction phase and a further 125 permanent jobs for its maintenance and operation.



#### **Climate action**

Hydropower reduces the emission of greenhouse gases (GHG) and contributes to the mitigation of global warming. Furthermore, it helps to support Vietnam's development without adding further threat to the global climate.





# Scientific brief – how it works

Hydro power is one of the oldest means of producing energy. The principle is simple: it only needs water and a difference in height. The kinetic energy of the water drives a turbine coupled to a generator and is thus transformed into electricity.

The project uses a dam meaning that the power supply doesn't rely on weather or rainy seasons. This makes the power consistent and reliable year-round and thus reduces the need for back-up generators which are often powered by fossil fuels. Furthermore, it means that the power supply can be controlled so that in times when demand is lower, water can be held back rather than creating a surplus of energy.



# Project Standard



The CDM is one of the three Flexible Mechanisms defined in the Kyoto Protocol and allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne

of CO<sub>2</sub>. These CERs can be traded and sold, and used by industrialized countries to a meet a part of their emission reduction targets under the Kyoto Protocol.



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For more information on other projects in our portfolio please visit our website:

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