

Consultation in the lignite mining project

IPCC Feasibility Study



Location

Laos



Client

Banpu Power Ltd.



Expertise

Bankable Feasibility, Mine Planning, Electronic Data Processing, Mechanical Engineering, Electrical Engineering, Geological Modelling, Ground Water Modelling, Surface Dewatering, Geotechnical Investigations, Financial Analysis.

Our Services



- Assessment of geologic data and resources
- Description of geological, hydrological and geo-technical situation
- Mine equipment selection including mobile and IPCC plant
- Layout of mine infrastructure, coal stockpile design
- Equipment scheduling
- Economic model

Project description



The 550+Mt lignite resources of the Hongsa Basin, located in the Sainyabuli province of Laos PDR, were identified as particularly promising for an integrated seam to socket power project, comprising an open-cast Lignite mine, lignite-fired power plant, a limestone quarry, and associated infrastructure facilities.

RWE was contracted to evaluate the technical feasibility, economic viability and environmental aspects of the proposed Hongsa mine, an opencast lignite mine with an average annual lignite production of 14.3 million tons (Mt), enabling the supply of three 626MW power generating units located near the pit exit.

An important aspect of the engagement of RWE was that the feasibility study would be elaborated in a joint team with Banpu staff and at RWE's mine operations in Germany to constantly be in the position to develop, discuss and verify relevant assumptions and processes by live observation of industry best-practices.

On the basis of exploration drillhole results and other available data and documents, a geological model was established and detailed mine design parameter were developed. During the mine planning process, several pit geometries, mine development options and Equipment applications were evaluated before drawing up the final mine plan, specifying mobile and continuous mining equipment and developing detailed cost and financial models.

The solutions developed by RWE addressed the peculiar difficulties of the project, including: high rainfall, rugged topography and deeply weathered and unconsolidated overburden. The study provided key input into the overall financial assessment of the integrated mine-mouth power project.

Subsequent to obtaining project development consent, BANPU awarded RWE with the elaboration of a detailed Mine Master Plan.

Ever since, RWE carried out various engineering support services for BANPU – recently providing an expert opinion and technical support during the inspection of material handling equipment at the Hongsa mine.

