

# Punta Catalina

# GENERATING A NEW ENERGY FOR THE DOMINICAN REPUBLIC



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## **Punta Catalina**

Corporación Dominicana de Empresas Eléctricas Estatales (The Dominican Corporation of State Electric Companies, or 'CDEEE') has played, and continues to play, a central role in the social and economic development of the Dominican Republic since it was founded by government decree in 2001

RESEARCH BY Joseph Philips



orporación Dominicana de Empresas Eléctricas Estatales (The Dominican Corporation of State Electric Companies, or 'CDEEE') has played, and continues to play, a central role in the social and economic development of the Dominican Republic since it was founded by government decree in 2001.

The charter of CDEEE is to contribute to, and promote, the competitiveness and modernization of the country's energy sector, primarily through the development of energy projects. Its mandate also includes the responsibility to provide clean, safe energy to all of the citizens of the Dominican Republic, in both urban and rural areas.

A great example of the kind of work carried out under this mandate can be seen at the Punta Catalina Thermoelectric Plant, located on the south coast of the Dominican Republic. A US\$2 billion investment will make this the biggest of its kind anywhere in the Caribbean region. Its social and economic impact on the island are also well worth an investigation.

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### Background

The Punta Catalina project was first envisioned by the Dominican Republic government of the day almost 10 years ago. The initial plan was to develop a new power plant to replace some of the decades-old oil-fueled plants that existed at the time. A feasibility study was conducted by CDEEE, the project was designed a groundbreaking ceremony took place in 2013.

In August 2014, financial environmental approval was provided by the Dominican

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Environment Ministry (Mimarena), and the final tranches of financing were secured from a consortium of international banks in 2015. In total, just over Us\$600m of the US\$2bn financing required involved foreign players.

Punta Catalina is comprised of two identical coal-fired units and a coal terminal with a capacity of 80,000 tonnes. The energy capacity of the plant is 752MW gross, or approximately 30% of the Dominican Republic's gross energy output, giving some



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indication of the strategic importance of the project to the country.

The plant has a modern system for the transfer of mineral coal through closed pipes that prevent it from impacting on the environment. The same goes for the coal warehouse, which is completely roofed and closed. In addition, itt has a modern gas emissions treatment system, an additional component that prevents the flow of polluting smoke to outside, as it is passed through filters which reduce its effects on the environment.



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The first tests were carried out in December of last year and January of this year, after a massive 38,516 tons of coal arrived at the plant, shipped by the company's coal supplier Xcoal Energy & Resources. It was just the first of many shipments that will happen over the next year as the plant moves into production.

The tests involve the ignition of the boiler, the rotation of the turbine and the generator, as well as the intermittent energy production of the first unit to ensure that everything is in working order. This is standard procedure

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in plants like this, before the energy is intermittently released into the general grid. As of Q2 2019, the project has successfully completed all required tests of its production components and is ready for commission. It represents a state-of-the-art technology in energy unlike anything seen in the Caribbean before and ensures stability of the Dominican Republic's energy supply for the next generation.

**Social and Environmental Impact** Italian consulting firm SACE was hired to



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perform a social and economic assessment of the Punta Catalina project. Not only was the project assessed on its compliance with host country environmental and social laws, regulations and permits, it was also measured against IFC performance standards, and the World Bank screening criteria for coalfired power. It performed well against all the aforementioned standards.

Emissions from the power plant were confirmed by the independent report as being lower than 850 g CO2/kWh, with more

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than 95% of the sulphur and nitrogen oxides and mercury (SOx, NOx and Hg) removed from the flue gases. Despite being a coalfueled plant, the report also showed that it would exhibit positive results in terms of emissions reduction. The project also includes an innovative soil-improvement technology, which will protect the flora and fauna in the vicinity of the plant.

On the project's social impact, first and foremost, there is the issue of providing energy to some of the poorest communities



in the Dominican Republic. Social programs have also been in place since 2014. These have focus on two fronts: First, education and health - especially adult literacy and oral health. Second, opportunities for growth and employment - which made available muchneeded professional training programs to locals in Punta Catalina. In fact, the project itself will employ around 4,000 people, of which 30% will come from local villeages and towns.



In a sometimes challenging project, the partners and suppliers of CDEEE have proven their value to the project time and time again. Engineering, procurement and construction services for the new plant were provided by an

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international consortium of Maire Tecnimont SpA, Odebrecht and Emasa Engineering and Emasa Engineering, an energy plant specialist.

Consulting firm Tetratech was central to the environmental specifications of the project, while others involved included international giants General Electric, Etermar, SAET SpA, Bridge 360 SRL and last but not least, C Logistics Solutions.

## The Future

Now that tests have been concluded for Punta Catalina, the citizens of the Dominican Republic can begin to benefit from its output in a number of ways - not just in an improved and more reliable source of energy, but also cheaper energy than they've had till now. Also, its arrival will allow the government to



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lower the electric subsidy that it contributes to its people every year, instead allowing it to invest this capital into other vital services and infrastructure.

Until now, the Dominican Republic has lagged behind all but Haiti on the World Bank's Ease of Doing Business Report where

getting electricity is concerned. The arrival of Punta Catalina addresses this element of the report and will surely push the country above many of its neighbours. By pushing the country further up the rankings - even if only by a few points - it serves to attract more FDI and sets a positive cycle in motion. No wonder we say it's generating a new energy for the Dominican Republic. **B** 

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