

Enabling remote access for major power generation project

Bridging Case Study



Chancay Bridge, Peru

Customer: Colpex Project SA | Solution: Mabey Compact 200™



The Challenge

At the beginning of the decade, Peru had a very modest electricity generating capacity of just 8000MW. However, the government was so confident that it could increase capacity by up to eight times that in 2010 it signed an agreement with neighbouring Brazil to export up to 6000MW of electricity.

Hydroelectricity is the key to Peru's energy ambitions. The mountainous country is perfect for the development of a range of hydroelectric dams. However, the mountainous terrain also presents a huge logistical challenge for developers to get construction plant to site. Most mountain roads are simply dirt tracks and river crossings – where they exist – are often insufficient to carry heavy plant.

For the Chancay and Rucuy hydroelectric project, a bridge was required at San Miguel de Acos, approximately two hours' drive from the capital Lima, to enable plant to reach the site.

The Solution

Mabey has a history of partnership with Peru to provide temporary site bridging in support of the construction of hydroelectric power plants. No less than six Compact 200 bridges were previously supplied to develop approach roads to the 456MW Chaglla Dam construction project.

In 2013, Sinersa, a Peruvian company engaged in developing power generation projects, approached Mabey with a requirement for a similar solution. As well as being remote, the site was heavily restricted with a construction area of just 18m and a limited construction line of 24m.

An 8-bay extra-wide Mabey Compact 200™ (Mabey C200™) bridge was originally specified with a four bay launch nose and tail. However, on arrival at site, a temporary dam had been constructed to increase the construction area by 6m and reduce the bridge gap to 12m. As a limited amount of launching equipment was available it was decided to reduce the launch nose to two bays.

The Mabey C200™ solution was assembled in just four days by a seven strong team, and a cantilever launch took place with a two-bay nose.

The Mabey C200™ is the ideal solution for projects of this nature. Components can be brought together from different stocks, and previously used components can be used with new components. The easy and rapid installation can be carried out by small teams using minimal equipment, yet the final installed structure is robust enough to comfortably handle heavy construction plant.



The Result

The construction of the Chancay and Rucuy hydroelectric project has been simplified by the construction of the Mabey C200™ bridge at San Miguel de Acos. While the bridge was initially built to serve construction traffic, it remains in place and is now used by civilian traffic.

The modular nature of the Mabey C200™ allows for last minute changes to specification and installation scheme, as was seen at San Miguel de Acos. With minimal site room and difficult access it was easy to adapt the installation plan to suit the specific situation. Peru will continue on its ambition to become an exporter of electricity, and that ambition is being supported and facilitated by Mabey and the Mabey C200™.

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