

*Contribution to sustainable development*

The Project will contribute to the social welfare of the 6<sup>th</sup> region in Chile, where local employment opportunities and infrastructure are poor. Construction of the Project will last 33 months, with the Contractor required to attempt to source at least 30% of its workforce locally. The La Higuera Project is currently employing approximately four hundred employees out of a total workforce of fifteen hundred from the local region, and this project will add significantly to this figure. Road access to the valley and its upper reaches is limited to a few months in summer due to the treacherous nature of the road. The construction Contractor will upgrade the I-45 road beside the Tinguiririca River within the Project area, which will be improved to provide expected year-round access, open up the area to income generating activities including tourism, as well as provide for the better utilisation of the natural resources such as thermal springs, climbing, archaeological sites and other recreational activities. The Joint Venture is also undertaking a significant community sponsorship program to foster education, training and developing new businesses in the local communities.

The Project has applied sound principles for sustainable run-of-river hydropower development in line with the EU ETS Compliance Report<sup>1</sup> requirements and will thereby be able to sell carbon emission reductions into the European Trading System (ETS). Although the Project does not have any large dams built on the river, the Project is larger than 20 MW and is therefore currently asked by the EU member states to submit a Compliance Report detailing sustainability issues like consultation, transparency, environment, sustainable development and use of the river by all stakeholders.

The Project is also particularly relevant to the sustainable development of the Chilean electricity sector, which is currently undergoing a fuel supply crisis. Following the introduction of imported Argentinean natural gas in 1996, most additional capacity needs have been met by combined cycle natural gas plants. However, in 2004 Argentina restricted the exports of natural gas into Chile and subsequent gas restrictions have forced many of these plants to reduce generation and use diesel where environmental permissions exist. As a result of this the Chilean Government is actively seeking alternative forms of energy to supply a system with an internal growth demand of 350-400 MW per annum. Unfortunately, renewable energies are not a priority, and system expansion will favour thermal energy like coal fired plants<sup>2</sup>.

The Project uses the consolidated methodology ACM0002 version 12.1 to establish the emissions reductions resulting from the Project Activity. Based on the ex ante application of this methodology the Project is conservatively estimated to reduce emissions by 423,120 tonnes of CO<sub>2</sub> per year that would have otherwise been emitted via the baseline operation of the Chilean grid to which the Project will be connected. The emission reductions are expected to increase as the thermal electric capacity of the grid switches to coal from natural gas. As a run of river project with significant socio-economic benefits and no significant environmental impacts the additional sustainable development benefits in the face of new

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<sup>1</sup> Compliance Report assessing application of article 11 b (6) of Emissions Trading Directive to Hydroelectric Project Activities exceeding 20 MW” - [http://ec.europa.eu/environment/climat/emission/ji\\_cdm\\_en.htm](http://ec.europa.eu/environment/climat/emission/ji_cdm_en.htm)

<sup>2</sup> April 2007 CNE Node Price Fixation Report, *Comisión Nacional de Energía*.