From: lanceclarke@lowerchurchillproject.ca
Sent: Wednesday, November 6, 2013 4:05 PM
To: james meaney/nlhydro
Subject: Fwd:

FYI- pass along as you see fit.

Begin forwarded message:

From: "Paul Harrington" <PHarrington@lowerchurchillproject.ca>

Date: 6 November, 2013 2:29:21 PM NST

To: "Lance Clarke" <LanceClarke@lowerchurchillproject.ca>,"Ed Over" <EdOver@lowerchurchillproject.ca>

Cc: "Ron Power" <RonPower@lowerchurchillproject.ca>,"Scott O'Brien" <ScottO'Brien@lowerchurchillproject.ca>, "Gilbert Bennett" <GBennett@nalcorenergy.com>

This project won an Environmental award also - MWH provided detailed engineering services and Astaldi were a part Owner

</body>

Best Hydro Project of the Year: The Chacayes Hydroelectric Station, owned by Pacific Hydro Chile and Astaldi Concessions in Chile

Pacific Hydro Chile (PHC) saw an opportunity to develop run-of-river hydroelectric plants in the Cachapoal Basin to feed into

the national grid and achieve attractive returns, especially considering the expected 6 percent annual growth in electrical demand in the country.

In 2005, PHC commissioned a feasibility study of the Cachapoal River basin, which resulted in the recommendation for six run-of-river projects. The 111 MW Chacayes hydroelectric project is the first in a series of planned developments on the river to be undertaken by PHC. The project includes diversion weirs, a daily regulation pond, a desander, canals, tunnels and a surface powerhouse.

Hatch, formerly Acres International, provided consulting services for the basic and definition engineering and the preparation of tender documents for an Engineering, Procurement and Construction Management (EPCM) contract for the 111 MW Chacayes project.

The project was built under an EPC contract with Constructora Astaldi Fe Grande Cachapoal Ltda, a consortium made up of Astaldi SPa from Italy and Fe Grande, a Chilean construction company. Hatch was responsible for reviewing the EPC contractor's detailed design documentation and drawings for civil works, mechanical and electrical systems and equipment supply.

The project posed a number of logistical challenges. The development is in a seismically active region of Chile, and one of the two diversion intakes is located in a national reserve. Careful attention had to be given to the visual impacts on the unique development.

Chacayes, which came online in September 2011, is the first of six hydropower projects in the $2 billion development pipeline in the valley. Together, the six projects will add more than 600 MW of renewable energy capacity to Chile's national grid.

Clean energy generated at Chacayes is supplied to Chilectra, the largest electricity distributor in the country, under a long-term power purchase agreement.

Paul Harrington

Project Director

PROJECT DELIVERY TEAM

Lower Churchill Project

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