

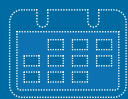


ASSEMBLY OF THE STATIC EXCITATION SYSTEM (SES)

Agua del Toro Plant - ABB - PAMPA ENERGÍA - Argentina

ENVIRONMENT

The Agua del Toro dam is located in the Cuyo region of western Argentina in the province of Mendoza on the Diamante river basin. Its main use is the generation of energy and the provision of water for irrigation. The dam is made of simple concrete with a curved axis with a height above the riverbed of 98.50 m and a length of 325.00 m, which allows it to store 296.42 hm³. The mean annual flow of the river is 33.4 m³ / s and floods of 1,378.00 m³ / s have been observed. The plant has 2 Francis turbines with a unit capacity of 75.00 MW and an average annual generation of 324 GWh.



EXECUTION

10

WEEKS



WORK TEAM

6

ENGINEER/TECHNICIAN



COMPOSITION

50% Labor
35% Materials
15% Engineering and support

DETAIL

2018

PROJECT DESCRIPTION

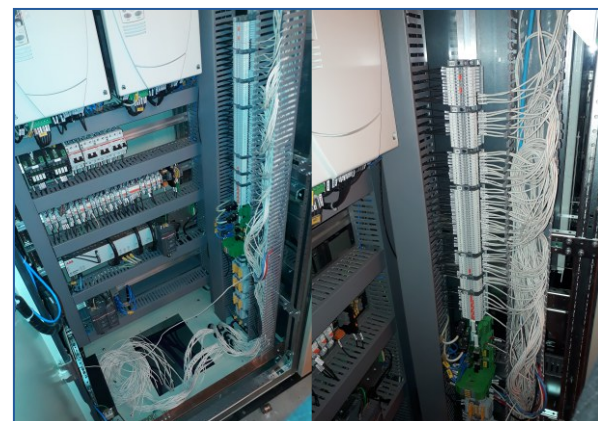
1. Provision of engineering, drawing up plans and adaptation of existing plans with new routes, ducting of power and control cables, typical of assemblies, listing of reused and new field cables with details of origin and destination. View and detail plans of the location of the new Transformer and Excitation Board. As-built plans (in quantities and formats according to Diamante hidroelectric... (HIDISA ET). Calculation and selection of DC and AC power cables.

2. Disassembly of the Current Equipment, disconnection and identification of power cables, command and control of the existing Board, disassembly of the existing power cables for DC between the excitation board and the slip rings of each generator. Excitation board disassembly.

3. Assembly of the New equipment, assembly of the new Excitation board, connection of command and control cables according to engineering. Laying and connecting new DC power cables (excitation board to generator slip rings). Connection of new AC power cables from the new Excitation transformer to new EXC terminals. Connection of AC and DC supplies to the new EXC. Laying and connection of two DC power supplies (emergency DC excitation board of the control unit and the EXC).

4. Excitation Transformer assembly of the new transformer, laying of new control cables, assembly of conduits and connection from the new TEX to the control and power terminals of the EXC. Laying of new AC medium voltage power cables. Insulation and continuity tests of new and existing cables involved in the system

5. On-Site Testing Support the client requested part of the staff to assist in the Setting up of the system and to make the necessary adjustments or corrections during the tests.



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