

MINI-HYDROELECTRICAL POWER PLANT

Location	Avô, Oliveira do Hospital, Portugal
Client	Hidroelétrica do Alva Lda.
Date	1994-2001
Services	Technical and economical studies. Financing studies. Design of complete infrastructure (hydrological, geological and geotechnical studies, structural and hydraulic design, electromechanical design). Environmental impact studies. Risk assessment. Direction of construction works.

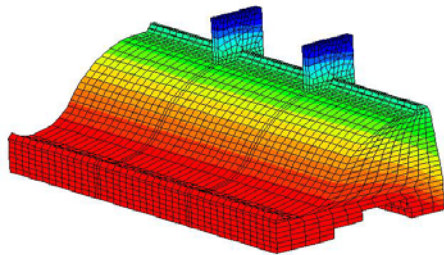


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Description

The Mini-hydroelectrical power plant of Avô is exclusively dedicated to the production of electricity and is located in the river basin of river Alva, which is a tributary river to river Mondego, the longest river in Portugal that is completely contained within the Portuguese borders.

A concrete gravity dam was adopted that includes steel gates ("clapet"). The installation includes: dam, water discharge, fish ladder and electro-mechanical installations. The dam is classified as a large dam according to the Portuguese code for the safety of dams and the design flood is 1750 m³/s. The hydroelectrical power plant has an installed capacity of 1.4 MW corresponding to a turbine with a maximum flow of 20 m³/s.



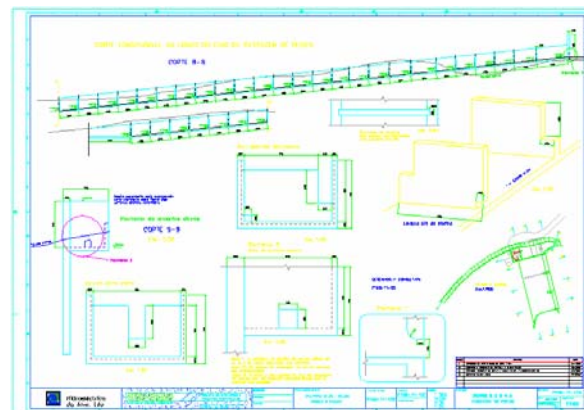
Perspective view of numerical model.



Detail of dam structure.



During construction



Detail of fish ladder.