

P04 "ROOFING"OF BAGNORE 3 GEOTHERMAL POWER PLANT

The original design of a new geothermal power plant in a wilderness area was modified face to architectural and landscaping aspects. The new design includes a special "roofing" of the main machinery building, consisting of a steel structure featuring 17 "ribs", 64 m long, shaped to fit to the natural slope of the hillside.

No cladding is added, so that the "roofing" is composed by the structural elements only: the section shape of the "ribs" was studied in order to fulfill special architectural and aesthetic requirements.

Design included seismic response analysis and non-linear analysis of the very slender steel "ribs".

Because of the heavy corrosive environment, special self-passivating (CORTEN type) steel was used.

Client: ENEL - Italian National Electrical Energy Company

Builder: Dalla Verde S.p.A. (VC)

Construction year: 1999

Work budget: 630.000 €

Supplied services: Complete design, from preliminary to detailed.



