

PROJECT DESCRIPTION

The planned size of the Alaşehir 2 plant is 23.6 MWe rated load capacity (licence 24 MW) with one alternator driven by two turbines manufactured and installed by ORMAT Inc. The plant technology is a binary organic cycle designed. With a load factor of 8,327 hours/year, the plant is expected to produce 139.48 GWh/year equivalent.

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ENVIRONMENTAL AND SOCIAL KEY ISSUES

- Potential pollution/contaminant emissions during construction and operation activities
- Land Acquisition
- Potential visual impact
- Need for a monitoring plan (flora and fauna, noise, water and air)
- Cumulative impact with other GEPPs around
- Potential micro seismic activity and subsidence due to fluid pressure increase during the reinjection;
- Stakeholder Engagement
- Community/workers health and safety both during construction and operation phases

MITIGATIONS/SUCCESSFUL IMPLEMENTATION

- Supervision of the construction activities by environmental, social and health & safety experts to avoid, prevent, minimize and monitor potential adverse impacts on the affected social and environmental compounds.
- In case of land acquisition a mutual agreement procedure is to be preferred
- Landscape reinstatement plan and photo-impact simulation required to assess the visual impact due to the presence of the plant, wells and piping,
- The PC recommends putting in place a monitoring campaign on subsidence, seismic, noise, water quality, air quality and on flora and fauna shall be put in place during different phases of the project.
- Subsidence and seismicity monitoring starting at the beginning of activities and during operation.
- A cumulative impact assessment is required to evaluate also the possible cumulative impact with the Plants around and ancillary works,
- Stakeholder Engagement Plan implementation to involve and inform the stakeholders and to reduce the risk of conflicts with ensuring good public relations
- Implementation of workers' safety and protection action plans

GENERAL INFORMATION

Project Location	Manisa Province, Alaşehir District
Technology	Geothermal Power Plant
Plant Capacity	24 MWe (licence), 23.6 MWe (actual)
Annual Energy Production	139,480 MWh/y

TIME SCHEDULE

Start of Construction	January 2015
Expected Commercial Operation	July 2016

FINANCIAL PARAMETERS

Total Project Cost	EUR 73,100,000
MidSEFF Loan	EUR 40,000,000
Payback Time	7.03 years
Internal Rate of Return	11.63 %