

Environmental Examination Report

(1) Project Name

Geothermal Power Plant Project

(2) Project Site

Manisa, Republic of Turkey

(3) Project Outline

Construction and Operation of Geothermal Power Plant

(4) Category Classification

Category B

(5) Reason for Classification

The project includes sensitive characteristics, meanwhile, is located neither in sensitive areas nor in its vicinity and the environmental impact of the project is negligible and cannot potentially worsen.

(6) Environmental Permits and Approvals

Pursuant to the laws and regulations of Republic of Turkey, the ESIA report for the project was prepared for submission, and the Environmental Permit was issued in January, 2016 by the Ministry of Environment and the City Planning, Turkey.

(7) Pollution Mitigation Measures

Appropriate measures have been established and will be implemented for air quality, water quality, waste management, noise and vibration under the local standards.

(8) Natural Environment

There are no nature reserves in vicinity of the project site. There are no protected species potentially live under both the laws and regulations of Republic of Turkey and IUCN.

(9) Social Environment

Appropriate measures for land acquisition are taken based on the laws and regulations of Republic of Turkey after the consultation with landowners. Concerning groundwater withdrawal, since drawing underground fluid will be returned into the ground, land subsidence will not be occurred.

(1 0) International Standard

World Bank-Safe Guard Policy

(1 1) Others, Monitoring

Taking the above environmental review into consideration, JBIC will monitor following items:

- acquisition of operational permit for geothermal energy power plant;
- progress of land acquisition.

Questions

Q1. Please provide the address of the project site.

Address of the project site: Soğukyurt Mevkii Alaşehir/Manisa

Q2. Please provide brief explanation of the project.

Sis Enerji Üretim A.Ş. is going to construct geothermal power plant (GPP).

Q3. Will JBIC loan be applied to a new project or an executing project? In case of an executing project, please inform of strong claims by stakeholders such as local residents, as well as improvement guidance or cessation orders for construction work / operations, from environmental authorities.

- | | |
|---|--|
| <input checked="" type="checkbox"/> New Project | <input type="checkbox"/> Executing Project (with Claim etc.) |
| <input type="checkbox"/> Executing Project (without Claim etc.) | <input type="checkbox"/> Others (Please specify) |

Q4. In case of this project, is it necessary to execute Environmental and Social Impact Assessment (ESIA) based on the laws or regulations of the country where the project is to be implemented? If necessary, please inform the progress of ESIA.

- | | |
|--|--|
| <input type="checkbox"/> Required (completed) | <input checked="" type="checkbox"/> Required (under execution or under planning) |
| <input type="checkbox"/> Not Required | <input type="checkbox"/> Others (Please specify) |

Q5. In case that ESIA is already completed, please inform whether ESIA report is already approved based on the environmental and social impact assessment system of the country where the project is to be implemented or not. If ESIA report is already approved, please provide the date and name of authorities of the approval.

- | | |
|--|---|
| <input type="checkbox"/> Approved (without conditions) | <input type="checkbox"/> Approved (conditional) |
| <input checked="" type="checkbox"/> Under approval process | <input type="checkbox"/> Others (Please specify) |

Date of Approval : _____

Name of Authorities : _____

Q6. If environmental permit(s) other than ESIA is required, please provide the name of required permit(s). Have you obtained required permit(s)?

- | | |
|--|---|
| <input checked="" type="checkbox"/> Obtained | <input type="checkbox"/> Required, but not obtained yet |
| <input type="checkbox"/> Not required | <input type="checkbox"/> Others (Please specify) |

Name(s) of required permit(s) : "Out of EIA scope" for the well drilling was given by Provincial Directorate of Environment and Urban Planning on 19.11.2014

Q7. Will the loan be used for the undertaking that cannot specify the project at this stage (e.g. export or lease of machinery that has no relation with specific project, or Two Step Loan that cannot specify the project at the time of loan agreement)?

(Yes / No) No

If you answered "Yes", it is not necessary to reply to the following questions.
If you answered "No", please reply to the following questions.

Q8. Are there any environmentally sensitive area shown below in and around project site?

(Yes / No) No

If you answered "Yes", please select applicable items by marking, and reply to following questions.

If you answered "No", please reply to questions 9 and after.

- (1) National parks, protected areas designated by government (coastal areas, wetlands, habitats of minorities or indigenous populations, heritage sites, etc.)
- (2) Ecologically critical forests areas (including primeval forests and tropical natural forests)
- (3) Ecologically critical natural habitats (including coral reefs, mangrove, tidal flats, etc.)
- (4) Habitats of endangered species of which protection is required under local laws and international agreements.
- (5) Areas that have risks of large scale increase in soil salinity or soil erosion
- (6) Desertification areas
- (7) Areas with special values from archaeological, historical and/or cultural viewpoints
- (8) Habitats of minorities, indigenous populations, nomadic people with traditional lifestyle (including areas used for cultural and/or spiritual purposes), or areas with special social value

Q9. Does the project involve following characteristics?

(Yes / No) Yes

If you answered "Yes", please describe the scale of applicable characteristics, and reply to the questions 10 and after.

If you answered "No", please reply to questions 11 and after.

- (1) Involuntary resettlement and/or loss of means of livelihood (Number of affected people:)
- (2) Pumping of groundwater (Scale: 9,800,000 m³/year)
- (3) Land reclamation, development and/or clearing (Scale: ha)
- (4) Deforestation (Scale: ha)

Q10. Under the environmental and social impact assessment system of the country where the project is to be implemented, do the applicable characteristics from (1) – (4) above and their scale serve as basis for executing an ESIA for the project?

- They do
- They do not
- Others (Please specify)

Q11. Will JBIC share in the project be equal or less than 5% of the total project cost, or the total amount of JBIC loan equal or less than SDR 10 million? (In the case of additional support for a past project, this shall be the accumulated total amount)

(Yes / No) No

If you answered "Yes", it is not necessary to reply to the following questions.

If you answered "No", please reply to questions 12 and after.

Q12. Does the project belong to either of the sectors that impacts on the environment and the society is deemed immaterial or is not anticipated under normal conditions (e.g. maintenance of the existing facilities, non-expansary renovation project, acquisition of rights and interests without additional capital investment)?

(Yes / No) No

If you answered "Yes", it is not necessary to reply to following questions.
If you answered "No", please reply to the questions 13 and after.

Q13. Does the project belong to the following sectors?

(Yes / No) No

If you answered "Yes", please specify the sector by marking, and reply to questions 14 and after.
If you answered "No", it is not necessary to reply to the following questions.

- (1) Mining
- (2) Oil and natural gas development
- (3) Pipelines
- (4) Iron and steel (projects that include large furnaces)
- (5) Non-ferrous metals smelting and refining
- (6) Petrochemicals (manufacture of raw materials; including complexes)
- (7) Petroleum refining
- (8) Oil, gas and chemical terminals
- (9) Paper and pulp
- (10) Cement plants (including a greenfield quarry)
- (11) Manufacture and transport of toxic or poisonous substances regulated by international treaties, etc.
- (12) Thermal power
- (13) Nuclear power
- (14) Hydropower, dams and reservoirs
- (15) Power transmission and distribution lines involving large-scale involuntary resettlement, large-scale logging or submarine electrical cables
- (16) Roads, railways and bridges
- (17) Airports
- (18) Ports and harbors
- (19) Sewage and wastewater treatment having sensitive characteristics or located in sensitive areas or their vicinity
- (20) Waste management and disposal
- (21) Agriculture involving large-scale land-clearing or irrigation
- (22) Forestry
- (23) Tourism (construction of hotels, etc.)

Q14. Please provide information on the scale of the project (project area, area of plants and buildings, production capacity, amounts of power generation, etc.) Further, please explain whether an execution of ESIA is required on account of the large scale of the project in the country where the project is implemented.