

SUMMARY SHEET

Project title:

Construction of a biogas power plant at a municipal waste recycling site

Sector :

Industry

Products / Services :

Generating electricity from municipal waste, liquid fertilizer

Location:

Aq Qala County, Golestan Province

Annual capacity :

4,000 thousand kilowatt hours of electricity and 7,000 tons of liquid fertilizer



Project description :

This project will be constructed on a 15000 m² plot with a 1080 m² built-up area.

Annual utility requirements:

Electricity: 192,000 kWh

Water: 4,500 m³

Natural gas: 4,500 m³

The facility will be equipped with either imported machinery.

Benefits of implementing the plan:

- Sustainable waste management: 50-60% reduction in the volume of organic waste entering landfills, increasing the life of the landfill site, significantly reducing soil, water and air pollution (leachate and methane).
- Clean energy production: 4 million kWh of renewable electricity annually, replacing fossil fuels, reducing greenhouse gas emissions (equivalent to reducing thousands of tons of CO₂ per year).
- Valuable fertilizer production: 7,000 tons of liquid fertilizer rich in nutrients and organic matter annually, replacing chemical fertilizers, improving soil fertility and structure, supporting sustainable agriculture.

Financial and Economic indicators

Financial structure :

Description	Total euros
Fixed capital	2785787
Working capital	28582
Total investment	2814369

- Value of foreign equipment / machinery 1735109 Euro
- Value of local equipment / machinery 52174 Euro
- Value of foreign technical know-how ---Euro
- Value of local technical know-how -----Euro
- Net present value (NPV) 21496636 Euro
- Internal Rate of Return (IRR) 34.32 %
- Capital Rate of Return : 4.34 years