



EXPORT AND INVESTMENT
PROMOTION AGENCY OF THE
REPUBLIC OF AZERBAIJAN



INVESTMENT PROJECTS IN AZERBAIJAN

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100MW SOLAR POWER PROJECT

project owner: Nobel Oil LTD

PROJECT DEFINITION

Nobel Energy plans to construct a solar power plant to produce renewable energy in Samukh region, Azerbaijan. Average annual production of renewable solar energy will be 175 GWh/year.

After constructing 100MW Solar Power Plant in Samukh, Nobel Energy plans:

To deliver **90%** of produced energy to the dedicated customer within NEQSOL holding by signing bilateral agreement with the predetermined commercial entity



Project owner: **Nobel Oil LTD**

Nobel Oil LTD or Nobel Energy is a company operating in Azerbaijan, since 2005 in oil and gas service sector.

Nobel Energy is a provider of integrated services to the oil and gas industry in the Caspian region. Nobel Energy was originally established in 2005, later its corporate structure was re-organized to replace the Azerbaijan-based business under a parent company (Nobel Energy Services (UK) Limited) with its headquarters in London.

Along with strong local presence, Nobel Energy has a strong management team dedicated to the project. The project covers demand for caustic soda (50%) in Azerbaijan, which increased to 20.3 thsd tons in 2021.

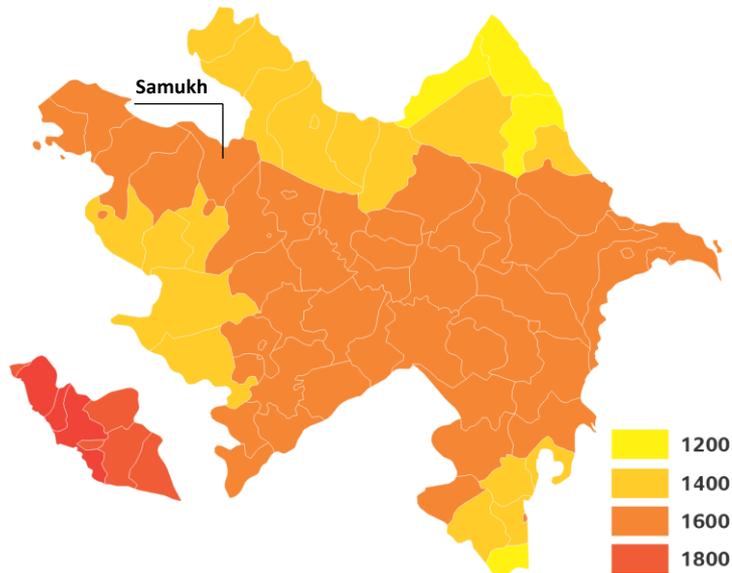
PROJECT LOCATION & MARKET INSIGHTS

LOCATION

SAMUKH REGION

The area where the PV plant is to be built consists of 1 available land, with a total surface area of 100.2 ha.

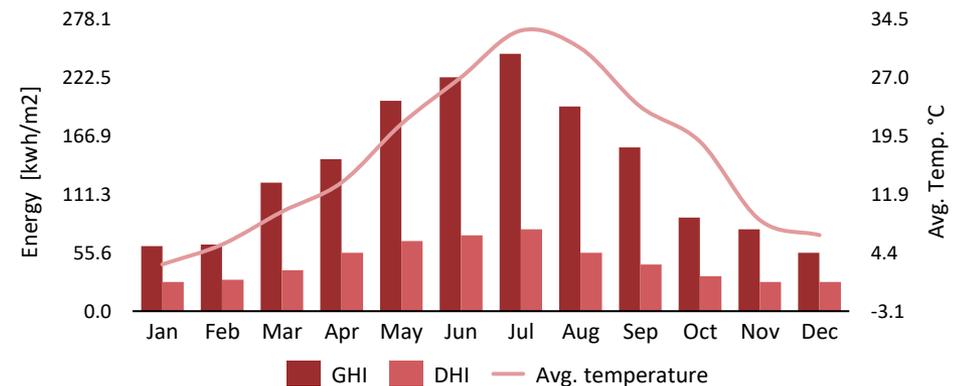
A preliminary terrain topography analysis was performed to study the suitability of the terrain for the construction of a photovoltaic plant. The North-South and East-West slopes were calculated.



SOLAR ENERGY IN AZERBAIJAN

- Azerbaijan has committed to reducing its GHG emissions by 35% by 2030, measured from the 1990 base year set in its Nationally Determined Contribution (NDC) under the Paris Agreement.
- Technical potential of energy in Azerbaijan is at the level of 23 GW
- As of 2022, already 700 MW solar and wind power projects are under development by UAE, Saudi Arabia and UK investors.

MONTHLY SOLAR RESOURCE CHART



INFORMATION ON SELECTED EQUIPMENT

The main equipment used to convert the solar energy will be:

- Photovoltaic modules, which convert the solar radiation into direct current.
- The single-axis tracker, which supports and orients the PV modules to minimize the angle of incidence between the incoming sun rays and the PV modules surface during the day.
- String inverters, which convert DC from solar field to AC.
- Power Transformers, which raise the voltage level from low to medium.
- Power Stations, which hold the necessary equipment to convert the DC power to AC

The selected photovoltaic module is the LR5-72HIBD-550M Bifacial model, manufactured by LONGi. It has a peak power of 550.0 W, and the technology of the cells is Si-mono. The module has a bifaciality factor of 65.00 %.

TECHNICAL INDICATORS

Samukh New Land Project

MAIN CHARACTERISTICS

Rated power (AC)	82 Mwac
Peak power (DC)	100 Mwdc
Ratio DC/AC	1.22

CIVIL CHARACTERISTICS

Suitable plot area	100.2 ha
Ground coverage ratio (GCR)	36.00 %
Structure type	One-axis tracker
Pitch distance	12.66

ELECTRICAL CHARACTERISTICS

PV Modules (550.0 Wp)	181818
Power station (up to 5000.0 kW)	17
Number of inverters (up to 250.0 kVA)	328

INVESTMENT SUMMARY

TECHNICAL INDICATORS



feasibility study available



plant estimated completion is 2024



location determined



fully priced tenders for E&P available

Investment	59,000,000 USD
Financing	70/30 debt-to-equity ratio
Equity IRR	~13%
Payback period	10 years (including construction)
NPV	positive
Permanent employment	Up to 50 people

CURRENT STATUS

1	DRAFT PPP TERMS NEGOTIATED WITH AZALTERNATIVEENERGY LLC
2	MOU WITH AZALTERNATIVEENERGY LLC (BELONGS TO STATE AGENCY FOR RENEWABLE ENERGY SOURCES UNDER THE MINISTRY OF ENERGY)
3	THE RELEVANT LOCAL LEGISLATION FACILITATING CONTRACTUAL ARRANGEMENT IS UNDER ADOPTION BY THE GOVERNMENT OF AZERBAIJAN
4	PRELIMINARY FINANCING NEGOTIATIONS CARRIED OUT
5	IN HOUSE CONSTRUCTION ESTIMATION COMPLETE