



SOCAR Green

Unlocking Sustainable Energy in Azerbaijan



September 2025

Azerbaijan's Green Energy Transition

Major Developments & Ambitions

- ✓ 40% reduction in greenhouse gas emissions targeted by 2050
- ✓ 30% renewable energy share in power generation by 2030
- ✓ Updated 1.5°C-aligned NDC in development ahead of submission
- ✓ 10 new solar & wind plants to become operational within the next 2 years
- ✓ 240 MW wind power plant completion expected by end of 2025
- ✓ 100 MW solar power plant preparations underway

Investment & Capacity Growth

- ✓ \$2.7 billion investment planned by 2027
- ✓ Renewable energy to reach 33.7% of installed capacity by 2027
- ✓ Long-term targets: 38% by 2030, 42.5% by 2035



SOCAR Green: Driving Azerbaijan's Energy Transition

SOCAR Green Overview

- ✓ Established: March 2024, fully owned subsidiary of SOCAR
- ✓ Mission: To lead Azerbaijan's energy transformation by driving the development of renewable energy solutions
- ✓ Current Projects: 1.66 GW underway, with a robust pipeline of additional renewable energy projects
- ✓ Strategic Role: A key player in SOCAR's sustainability transition, SOCAR Green strengthens the company's commitment to renewable energy and long-term environmental responsibility
- ✓ Goal: To emerge as Azerbaijan's national champion in green energy, delivering renewable projects with efficiency, impact and innovation

Strategic Partnerships Advancing Renewable Energy

240 MW Shafag Solar Project



160 MW Solar PV Project



100 MW Solar PV Project Project



445 MW Bilasuvar Solar PV Project
315 MW Neftchala Solar PV Project
240 MW Absheron-Garadagh Onshore WPP



160 MW Solar Plant



7 ongoing projects

10+ projects in early development

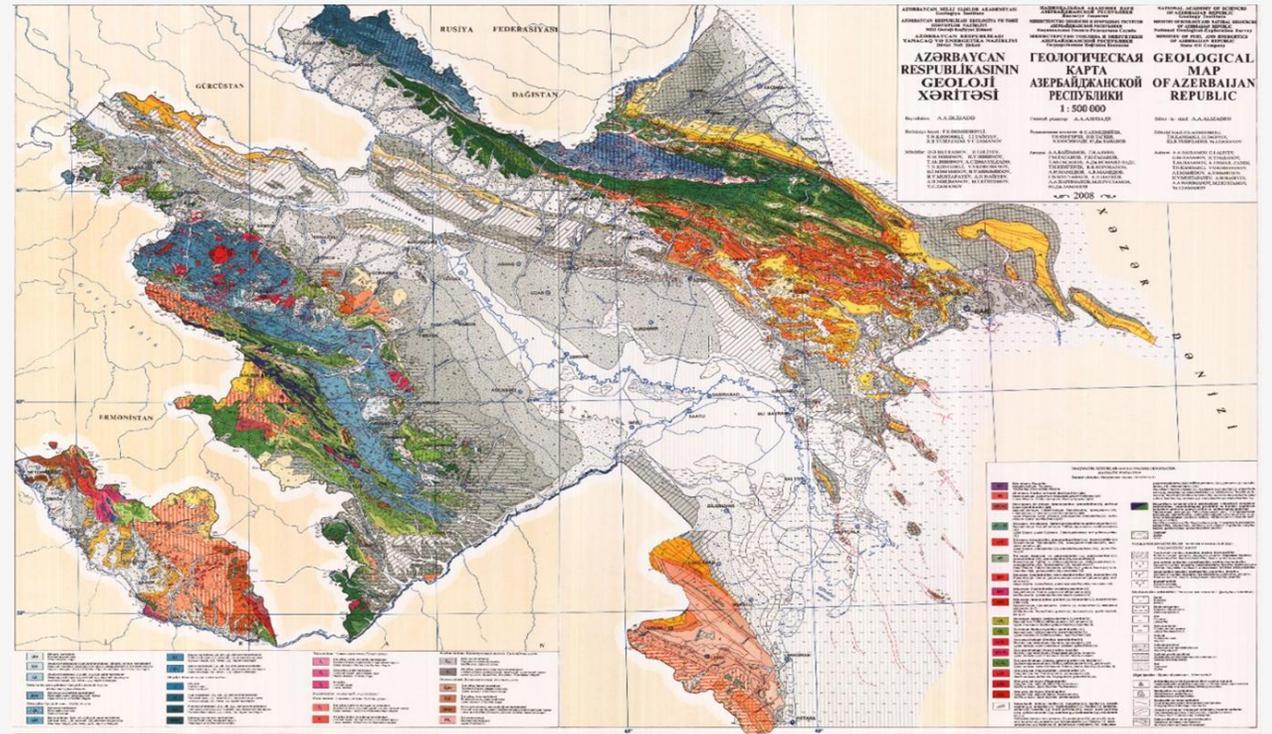
 Onshore wind

 Solar





Expanding clean energy horizons: Azerbaijan's geothermal potential



- ✓ **Key regions:** Greater & Lesser Caucasus, Absheron Peninsula, Central Aran, Talysh Mountains
- ✓ **Hotspots:** Terter & Arpachay river basins (Lesser Caucasus)
- ✓ **Geothermal gradient:** 1°C per 2–3m – ideal for energy extraction
- ✓ **Enables direct use** geothermal & future low-carbon heating systems



Geothermal energy: SOCAR Green new initiative

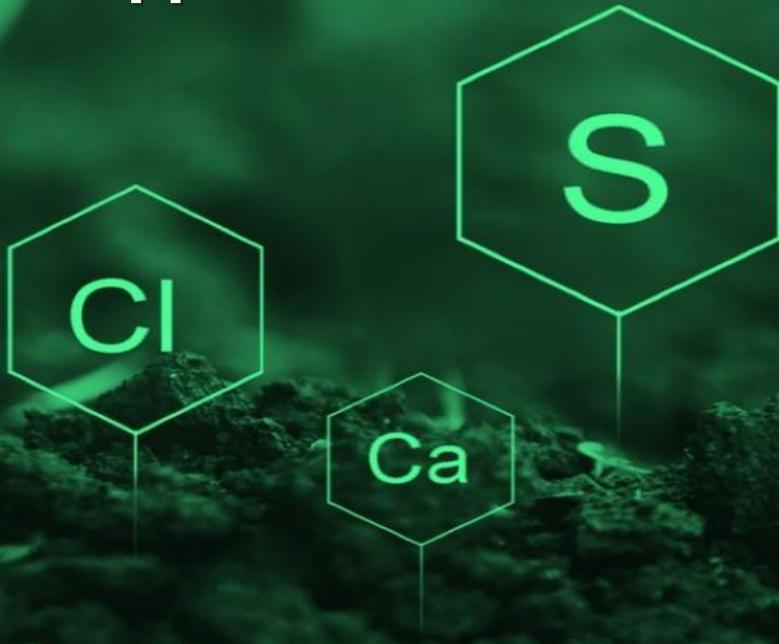
SOCAR Green is actively exploring the potential for geothermal energy development in Azerbaijan.

In the initial phase, the geothermal potential of two regions is being evaluated from both technical and financial perspectives.

Currently, SOCAR Green is pursuing several initiatives in parallel:

- ✓ Conducting on-site assessments of geothermal energy prospects
- ✓ Building strategic partnerships to support long-term development
- ✓ Establishing a dedicated working group to address regulatory frameworks for future projects
- ✓ The potential for lithium and critical mineral extraction from geothermal brines has not yet been studied in Azerbaijan but presents significant opportunities. Building on international best practices, we aim to assess the feasibility of such processes in parallel with geothermal development, ensuring the sustainable and innovative use of our natural resources

Green Hydrogen & Green Ammonia Regional Opportunities



Strategic Advantages

- ✓ Low-cost power & operations
- ✓ Rapidly growing wind & solar base
- ✓ Established chemical industry expertise

Export Pathways

- ✓ Pipeline (blending & future dedicated)
- ✓ Rail & sea via Black Sea → EU
- ✓ Green ammonia/methanol for global shipping
- ✓ LOHC for long-distance delivery (e.g., Japan)

Market Potential

- ✓ Target markets: EU & Japan
- ✓ Cost-competitive green energy exporter
- ✓ Versatile end-uses: fuel, fertilizer, power

Regional Expansion

- ✓ Integration via SOCAR assets in Türkiye
- ✓ Türkiye as gateway to EU
- ✓ Joint strategy → regional hydrogen hub

For Japanese Partners

- ✓ Technology: electrolysis, ammonia, syngas
- ✓ Co-financing (e.g., JCM)
- ✓ Long-term offtake potential

Bioenergy & Biofuels in Azerbaijan - Opportunities for Japanese Partners



Raw Materials in Azerbaijan



Agricultural residues



Animal waste



Municipal slurry



Organic municipal waste



Algae



Used cooking oil



End Products

Biogas/Biomethane¹

Syngas (precursor)

Biodiesel

HVO

Biochar

SAF



Applications

Biomethane → EU transport

Syngas → Green chemicals/ fuels export

Biodiesel/SAF → Aviation & shipping (EU/Japan)

Electricity & Heat (from AD²/CHP³) → Green power trade

Biochar → Carbon removal credits

Pellets → EU/Japan biomass market



Opportunities

Technology & Equipment

- Biogas upgrading
- Syngas gasifier - methanol/FT fuels
- High-efficiency CHP

Finance & Carbon

- JCM co-financing
- Carbon credits (methane, soil, biofuels)

Partnerships

- JVs with SOCAR Green
- Tech licensing / EPC for pilots

Export Hub

- Azerbaijan as biofuel/SAF hub for EU & Asia via Middle Corridor



Thank you!

