Energy transition in Azerbaijan: ambitions and reforms

2022 SPECA ECONOMIC FORUM ON “GREENER AND SAFER FUTURE”
16-17 November 2022

Orkhan Zeynalov
Ministry of Foreign Affairs, Azerbaijan
ACTIVE ROLE IN GLOBAL CLEAN ENERGY AGENDA

✓ A signatory of the Paris Agreement under the UNFCCC and ambitious NDC;
✓ Promotes and encourages deployment of sustainable and clean energy solutions in line with the SDG 7 and UN Secretary General’s initiative – Sustainable Energy For All (SE4ALL);
✓ An active participant of the EU-backed initiative – “Covenant of Mayors for Climate & Energy”
✓ Full member of International Renewable Energy Agency (IRENA) since 2014.
INDC

- 35% reduction in GHG emissions by 2030
- Mitigation efforts in the energy sector – energy efficiency and renewables

ENHANCED AMBITION IN GLASGOW

- 40% reduction in GHG emissions by 2050
- Net-Zero goal for the liberated territories by 2050
INITIATIVES JOINED/ENDORSED BY AZERBAIJAN DURING COP26

Glasgow Leaders Declaration on Forest and Land Use

Green Grids Initiative (GGI)- One Sun One World One Grid

A Call for Action on Adaptation and Resilience (A&R) and the Adaptation Action Coalition (AAC)

Global Ocean Alliance

The Glasgow Breakthroughs Statement

Declaration on Zero Emission Vehicles (ZEVs)

Global Coal to Clean Power Transition Statement

Powering Past Coal Alliance

No New Coal Power Compact
Priority 5

A clean environment and country of “green growth”
- high quality ecological environment
- green energy zone
GOALS AND COMMITMENT TO ENERGY TRANSITION

• To increase the share of renewable energy sources in total installed capacity of electricity from current 17% to 30% by 2030

• To reduce greenhouse gas emissions by 40% by 2050

• To transform the liberated territories into “a green energy zone”
POTENTIAL FOR RENEWABLES

- **WIND**: 3,000 MW
- **SOLAR**: 23,040 MW
- **BIO**: 380 MW
- **SMALL HYDRO**: 520 MW
OFFSHORE WIND IN THE CASPIAN SEA

• The Caspian Sea has a large potential for wind energy. According to preliminary assessments by the IFC, the technical potential of offshore wind energy in Azerbaijani sector of the Caspian Sea is estimated at a total of 157 GW.

• Caspian Sea is the second only to North Sea in terms of wind speed and its sustainability

• Immediate potential for harnessing 7 GW in shale waters around Absheron peninsula

• Roadmap for development of offshore wind energy
OFFSHORE WIND ROADMAP FOR AZERBAIJAN

• Globally significant technical potential of 157GW – with 35GW in shallow waters and 122GW in deep water

• Close to demand sites, low cost, large scale, clean source of electricity and long-term jobs

• Different growth scenarios for Azerbaijan depending on vision and targets

• Substantial CO2 avoidance and billions of USD in local growth value
“The liberated lands also have enormous energy potential. From the beginning, I want to say that I would like to see the liberated areas as a green energy zone. There are ample opportunities for that.”

H.E. Mr. Ilham Aliyev
President of Azerbaijan
RENEWABLE ENERGY POTENTIAL IN THE LIBERATED TERRITORIES

Solar: 7200 MW
- Gubadli
- Zangilan
- Jabrayil
- Fizuli

An Implementation Agreement has been signed with bp on the 240 MW solar energy project in Jabrayil.

Wind: 2000 MW
- Kalbajar
- Lachin

Hydro
25% of Azerbaijan's local water resources of Azerbaijan are generated in the liberated territories.
THE ESTABLISHMENT OF GREEN ENERGY ZONE IN THE LIBERATED TERRITORIES

➢ DEVELOPMENT OF CONCEPT AND MASTER PLAN FOR GREEN ENERGY ZONE
➢ THE AGREEMENT WAS SIGNED WITH JAPANESE TEPSCO IN MAY 2021
➢ GREEN ENERGY ZONE CONCEPT AND MASTER PLAN HAS BEEN APPROVED BY THE GOVERNMENT
IMPLEMENTATION STRATEGY FOR RENEWABLES

➢ Development of the regulatory and legal framework
➢ Determination of the supporting mechanisms
➢ Clear and transparent auction rules for investors
➢ Development of the tariff methodology
➢ Determination of financial sources
➢ Cooperation with the partners (potential investors)
LEGAL AND REGULATORY FRAMEWORK

- The Law on the use of renewable energy for electricity production adopted in 2021
- The Law on the rational use of energy resources and energy efficiency adopted in 2021 (jointly developed with the Energy Charter Secretariat within the EU funded EU4Energy project)
- A Decree signed by the President for setting up a favorable investment climate for renewables
- A clean environment and a country of “Green Growth” identified as one of five priorities in “Azerbaijan 2030: National Priorities for socio-economic development” – country’s strategic development roadmap
- Fundamental principles of active consumer support mechanism (net metering application) being developed with the support of EBRD
- Auction rules being developed in parallel to the main fundamental law with the support of EBRD
- Development of secondary legislation and regulation in energy efficiency envisaged by the Action Plan as a 2nd phase of the EU4Energy project
CLEAN ENERGY PROJECTS

• Wind power plant project with a capacity of 240 MW with “ACWA Power” of Saudi Arabia
• 230 MW solar photovoltaic project with “Masdar” of the United Arab Emirates
• Implementation Agreement with BP to build a 240MW solar power plant in the Zangilan/Jabrayil region
• MOU with IFC to cooperate on offshore wind development in the Caspian Sea
• A pilot project to install floating solar panels being implemented with the support of ADB
• MOU with BP to cooperate in assessing the potential and conditions required for large-scale decarbonized and integrated energy and mobility systems, including renewable energy projects in the regions and cities of Azerbaijan
KHIZI-ABSHERON WIND POWER PLANT

240 MW Wind Farm is a greenfield Independent Power Project IPP developed by ACWA Power

Main project agreements (Investment Agreement, Power Purchase Agreement and Transmission Connection Agreement) signed in December 2020

Groundbreaking ceremony held in January 2022

Offtake contract for 20 years

Commercial operations date Q3 2023

Project cost 300 million USD
GARADAGH SOLAR POWER PLANT

First utility-scale 230 MW solar energy project in Azerbaijan developed by Masdar

Main project agreements (Investment Agreement, Power Purchase Agreement and Transmission Connection Agreement) signed in April 2021

Groundbreaking ceremony held on March 15 2022

Offtake contract for 20 years

Commercial operations expected in 2023

Will power 110 000 homes and will reduce 200 000 tonnes of CO2 annually
GAME-CHANGER AGREEMENTS WITH MASDAR

Game-changing multi-billion investment venture with Masdar signed in Shusha in June 2022

2 GW onshore solar and wind projects

2 GW offshore wind plants

Potential increase upwards to 10 GW

Enormous potential for exporting green electricity and green hydrogen

Potential export to Europe through Georgia-Romania Black Sea subsea cable and via Zangazur Corridor and Nakhchivan
GUARANTEES FOR INVESTORS

➢ Protection of the investment (existing in the legislation)
➢ Tax rebates within seven years (investment promotion mechanisms)
- 50% reduction of income tax for individual entrepreneurs
- 50% reduction of profit tax for legal persons
- no VAT and no customs duties on imports of machinery, technological equipment and installations
- no property tax
- no land tax
➢ Guaranteed off-take (Take or pay)
➢ Guaranteed connection
➢ Priority in dispatching
➢ Possibility of indexation of payments to foreign currency
➢ Long-term land lease
POTENTIAL PROJECTS FOR IMPLEMENTATION

- 100 MW Wind Power Plant project in Lachin/Kalbajar
- Scale up floating solar PV project (over 50 MW)
- Restoration of small HPPs
- Support to the solar rooftop PV installations
- Usage of solar thermal power in households (solar collectors)
- Support to the establishment of EV charging units
- Support to solar PV installations in public buildings
- Support to the implementation of active consumer support mechanism (e.g. net metering)
- Energy efficient and green energy based street and road lighting
- Green bus stops and parking
- Pilot project for green hydrogen production
The solar energy that hits 1 square mile of the Earth in a year is equivalent to 4 million barrels of oil.
Thank you