

ASIA CLEAN ENERGY FORUM 2025

Empowering the Future: Clean Energy
Innovations, Regional Cooperation and
Integration, and Financing Solutions

2-6 June | ADB Headquarters



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Operations Session

Powering CWRD and Beyond: Green Corridors for a Connected Future

5 June 2025 | 11 am. (GMT+8)
(ADB Central West & East Asia)



MINISTRY OF ECONOMY
AND SUSTAINABLE DEVELOPMENT
OF GEORGIA

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National Pathways, Regional Purpose – Country-Led Clean Energy Transitions for a Shared Future

Margalita Arabidze

Head of Energy Efficiency and Renewable Energy Policy and Sustainable Development Department

Ministry of Economy and Sustainable Development of Georgia

Associate Professor of the Energy Faculty

Georgian Technical University



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Legal Framework and 2030 targets

Legislation

- ❖ National Energy Policy and National Energy and Climate Plan 2030
- ❖ Law of Georgia on Renewable Energy
- ❖ Law of Georgia on Energy Efficiency
- ❖ Law of Georgia on Energy Efficiency of Buildings
- ❖ Law of Georgia on Energy Labeling

Targets by 2030

- ❖ Renewable energy share 27.4%.
- ❖ 7% renewable energy share in the transport sector
- ❖ GHG emissions reduction - 47.0%.
- ❖ Primary Energy Consumption: 5,45 ktoe.
- ❖ Final Energy Consumption: 5 ktoe.



Renewable Energy Projects

Total Installed Capacity of the Grid is 4702.7 MW

❖ Hydro Power Plants - 3513.8 MW:



- Water reservoir Hydro plants 1993.1 MW;
- Seasonal Hydro plants 1520.7 MW;
- Small Hydro plants (<15 MW) 307.6 MW.

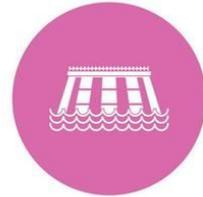
❖ Thermal Power Plants – 1168.2 MW:



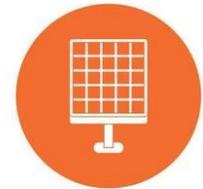
- Steam Turbines 572.0 MW;
- CCGT 486.2 MW;
- Gas Turbine 110.0 MW;

❖ Wind Power Plant - 20.7 MW:

Ongoing projects until 2034



Hydro Power Plants – 218 projects with installed capacity of 3812,5 MW



Solar Power Plants - 33 projects with installed capacity of 232,4 MW



Wind Power Plants - 25 projects with installed capacity of 1270,4 MW

75% of installed capacity is renewable energy

Support schemes: PPA, CfD auctions and Direct negotiations





Grid Expansion and Renewable Integration

The projects planned for implementation by 2034 have been divided into the following three groups:

- ❖ **Internal Projects**, including the projects affecting power transit and reliability;
- ❖ **Cross-Border Projects**, i.e. the projects affecting capacity and reliability of the transit flows among the power systems of Georgia and its neighboring states;
- ❖ **Local Projects**, comprising 220 kV and 110 kV lines

Max variable renewables integration into the grid by 2028 according to TYNDP

- ❖ 750 MW of wind power plants
- ❖ 500 MW of solar power plants.



Fig. 1.8 Summarized Data of internal system and cross-border importance Projects



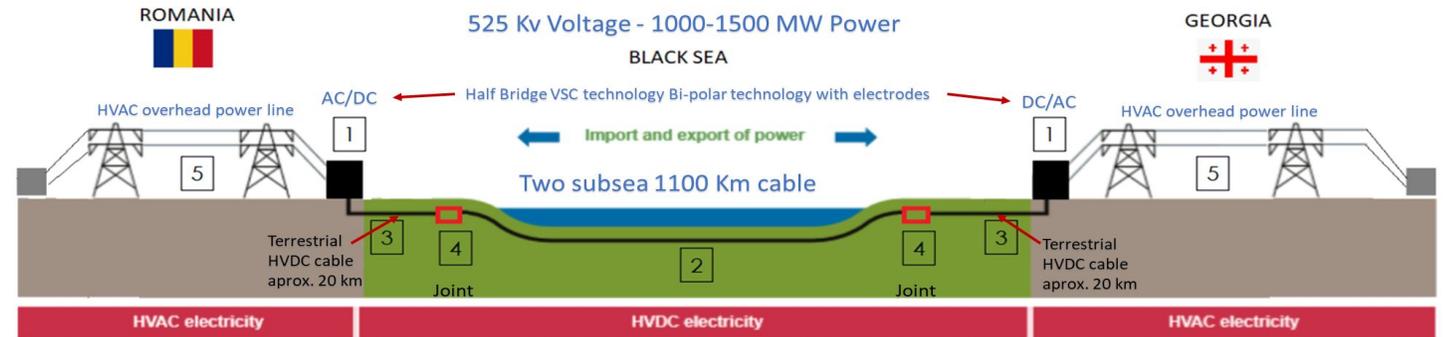
Interconnectivity

Interconnection with neighbors:

Country	TTC summer (MW)	TTC winter (MW)
Azerbaijan	2000	2200
Armenia	850	850
Türkiye	1200	1200
Russia	1834	1950

- ❖ Georgia plays a very important role as a transit country of energy, including electricity.
- ❖ In summer months country also exports excess of electricity, mostly to Türkiye

Flagship project: Black Sea Submarine Cable



- ❖ The feasibility study commenced in May 2022 and was completed in July 2024.
- ❖ The major conclusion is that the Project is technically and economically feasible.
- ❖ Work is underway to begin geophysical and geotechnical surveys of the Black Sea seabed. An international tender is planned to be announced this year for the procurement of these services.

Green Energy Corridor Project

The project builds upon the international cooperation of Georgia, Azerbaijan, Romania and Hungary;

The project will ensure the strengthening of cross-border interconnections of Georgia and Azerbaijan;

The Black Sea submarine cable will be a key component of the corridor and will export renewable electricity from the South Caucasus to the EU;

The Green Energy Corridor also includes Green Hydrogen as a priority area for production and trade.





Green Hydrogen, Green Growth and BESS



Georgia is developing a **National Green Hydrogen Strategy** to guide domestic market creation, technology readiness, and investment frameworks.



Georgia is working with the Asian Development Bank (**ADB**) on a comprehensive **Green Hydrogen Action Plan and Roadmap**, focused on infrastructure, export potential, and market integration.



Georgia and ADB have signed loan and grant agreements for the **"Energy Storage Battery System and Green Hydrogen Development Project."**



The project involves the installation of a **200 MW** capacity and **200 MWh** storage Battery Energy Storage System

- ❖ The budget of BESS project is 104 million USD

- ❖ Based on the Government Decree, the Green **Growth Strategy and Action Plan** Interdepartmental Council and Working Group were established.
- ❖ First draft of the Green Growth Strategy is available



Challenges with the implementation of interconnection projects

Supply Chain Disruptions due to global uncertainties

- Global supply chain disruptions caused by global uncertainties have significantly impacted the timely implementation of energy infrastructure projects.

Absence of a Unified Power Market

- The lack of a unified power market in the region is a significant obstacle to the integration of Georgia's electricity grid with neighboring systems.

Need for more capacity building and research

- More effort needs to be put into strengthening the capacity of Georgian stakeholders involved in the elaboration of renewable energy projects in the country.

Need for more detailed studies on the benefits of cross-border interconnections

- There are no major studies available, which would outline the possible benefits of transboundary projects with neighboring countries, especially with regards to environmental impacts, benefits to grid stability, wealth generation and

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Thank You for Your Attention!

Tel: (+995 32) 2 35 78 27

GSM Mob: (+995 593) 72 85 95

E_mail: marabidze@moesd.gov.ge

www.economy.ge

Linkedin: 



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