


Ministry of Energy of Georgia

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Renewable Energy and Energy Efficiency in Georgia



Economy

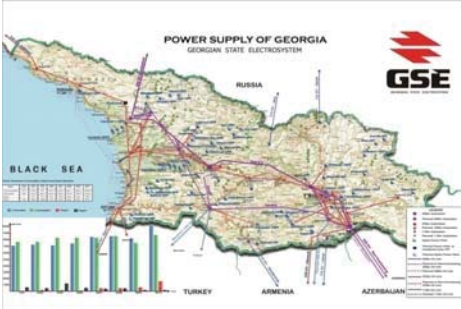
- Open and dynamically growing economy
- Minimum bureaucracy and liberal regulations
- Diversified economic growth

International Recognition

- World's Top Reformer country according to Ease of Doing Business (WB/IFC)
- Government's strong commitment for further reforming

Regional Energy Hub

- Reliable transit country
- Net electricity exporter to all four neighboring countries
- Rapidly expandable energy markets
- Construction of additional electricity export infrastructure



POWER SUPPLY OF GEORGIA
GEORGIAN STATE ELECTROSYSTEM
GSE

BLACK SEA
RUSSIA
TURKEY
ARMENIA
AZERBAIJAN

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Georgia's way toward Sustainable Energy Development



- ✓ Biggest untapped hydro resources in Europe
- ✓ 18% of total hydro potential is utilized
- ✓ Hydroelectric power plants provide almost 75% of Georgia's electricity

Georgia follows global energy trends towards the prioritizing the utilization of renewable energy sources

Energy Potential

- ❑ Hydro – total annual potential capacity is equivalent to 15000 MW
- ❑ Wind – total installed capacity per annum– 1500 MW
- ❑ Solar - total solar energy potential per annum is evaluated at 108 MW
- ❑ Geothermal waters - middle and low temperature thermal water - equal to 200-250 million m³ annually
- ❑ Bio-energy

Georgia's natural wealth is comprised principally of water and water resources (rivers, lakes, water reservoirs, ice underground waters, and bogs). Georgia's hydroelectric potential ranks among the world's greatest with at least 200 rivers capable of providing excellent opportunities for hydropower.

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Easy Regulatory Framework

*Greenfield projects based on **Build-Own-Operate (BOO)** principle*

- All new constructions are totally **deregulated** and there is **no tariff cap** set for them
- **Minimum number of licenses for the power production activity - obtained on "one stop shop principle"**
- **Investor is free to choose the market and the price** for selling the power generated at the new plant.
- **HPPs up to 13 MW have exceptional right to sell electricity** to any retail customers.
- **Export of electricity is totally deregulated.**
- **No license is required for exporting the electricity and there is no tariff set.**
- **Investor needs just to find a buyer and conclude direct purchase power agreement (PPA).**
- **GoG can offer a guaranteed purchase of electricity** for three winter months.
- **Free third-party access to the grid**

Export Oriented Greenfield Projects

- 50 HPP on-going Projects
- 15 new HPP projects under construction
- Construction works to be finished by 2017
- Projected investment upto USD 3 bln.



80% Georgia's hydropower potential remains to be harnessed

Black Sea Transmission Network Project BSTNP

700 MW capacity interconnection between Georgian electricity network and Turkish electricity network-

(Potentially, could be linked to Russia and other countries in the region)

- ❑ BSTNP will extend Georgia's existing 500 kV transmission system and facilitate the export of Georgian generated electricity to the large and fast-growing Turkish market
- ❑ BSTNP will enhance Georgia's integration in energy networks of the EU and ensure effective partnership in diversification of energy supplies from the region



Energy Efficiency

Regulatory framework

Draft Energy Efficiency Law is under development, *which is being updated in line with EU energy efficiency directives.*

Georgia has completed negotiations on the **Association Agreement** with the EU and applied for the membership in the **Energy Community**

Energy Efficiency **Action Plans** are being developed at local level for Tbilisi, Gori, Rustavi

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Low Emission Strategy

In 2012 Government of Georgia and the United States of America signed a Memorandum of Understanding on the **Cooperation in the Low Emission Development Field**, which aims at developing strategies of economic priorities related to low carbon economy.

Main target:

utilization of renewable energy sources
facilitation of energy efficiency
Sustainable development of natural resources

The program will support climate change mitigation measures through facilitation of production and usage of clean, renewable energy, as well as, increasing **energy efficiency**.

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On-going and Implemented Energy Efficiency Projects

➤ Provision of Implementation of Renewable Energy & Energy Efficient Projects:

1. *Installation of Micro Hydropower Plant in Borjomi Historical Central Park;*
2. *Introduction of Solar Thermal System in SOS Tbilisi Children's Village;*
3. *Introduction of Solar Thermal System in Tbilisi Public School #203 for Deaf and Diminished Hearing Children*
4. *Development of RE and EE Demonstration Projects and Accessible RE&EE Funding Mechanisms.*

➤ ESIB - Energy Saving Initiative in the Building Sector in Eastern Europe and the Central Asian Countries- *Provide all relevant information of concerning EE in buildings, banking programmes, governments plans and initiatives, social reforms affecting use of EE technologies and participation of home owners, programmes that involve municipalities and public buildings.*

➤ Covenant of Mayors Capacity Building Model for Ukraine and Georgia: Model Solution for Eastern Partnership and Central Asian Countries" –CoMO Model Project- *The purpose of the project is to support local authorities in Ukraine and Georgia (and in the long-term in other Eastern Partnership and Central Asian (EaP/CA) countries) in improving their energy security, reducing greenhouse gases emissions, diminishing dependence on fossil fuels, and improving their citizens' quality of life.*

➤ Energy Performance Assessment and Review of Energy Efficiency Management Systems at JSC SANTE GMT Milk Products *-Energy auditing, development of recommendations and economical calculations for energy and water saving measures.*

➤ The New Applied Technology Efficiency and Lighting Initiative (NATELI II) is a two-year (September 2011 – June 2013) project implemented by Winrock International Georgia and supported by United States Agency for International Development (USAID).

NATELI II focuses on three activities:

- 1) Rural Clean Energy
- 2) Energy Capacity
- 3) Continuing Support to the Energy Bus

Covenant of Mayors

Georgia is actively involved in the promotion of **Covenant of Mayors** project concentrated on the sustainable development by reducing their CO2 emissions even beyond the EU 20% target.

During 2011-13 other important Georgian cities –**Batumi, Gori, Kutaisi, Rustavi...** joined the Covenant of Mayors project.

Branch office of the covenant of Mayors Office for Azerbaijan, Georgian and Armenia has been created.

Data Collection and Monitoring

ESAP

In February of 2013 a Memorandum of Understanding (MOU) on statistical co-operation was signed between the National Statistics Office of Georgia, Ministry of Energy of Georgia and the INOGATE Technical Secretariat. The one of the main purpose of this MOU is to formally adopt **National Energy Statistics Action Plan** for Georgia (ESAP).

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Thank You!

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