



MINISTRY OF ECONOMY
AND SUSTAINABLE
DEVELOPMENT
OF GEORGIA

Georgia's experience with regards to SDG7 implementation, challenges, and development prospects

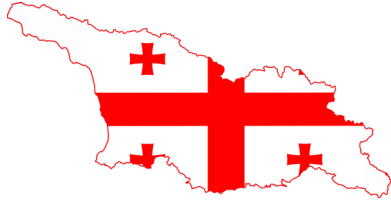
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Installed Capacity of Georgia's Power System



4525.1 MW

Hydro Power:

105 Operating HPPs

Installed Capacity – 3350 MW

Wind Power:

1 Operating WPP

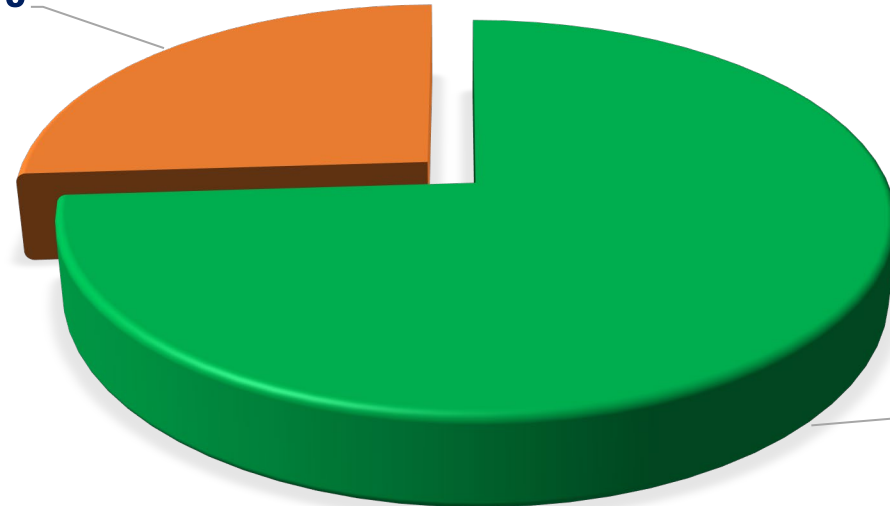
Installed Capacity – 20.7 MW

Thermal Power:

6 Operating TPPs

Installed Capacity – 1154.4 MW

TPP
25.5%



RE
74.5%

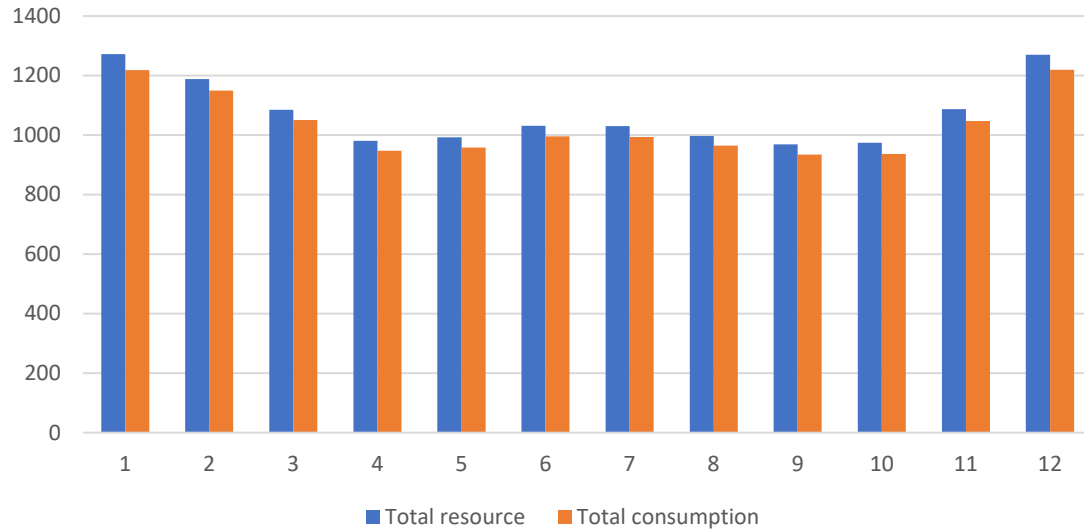




Case study: OVERVIEW OF EXISTING SITUATION IN THE FIELD OF ENERGY IN GEORGIA (Challenges/problem)

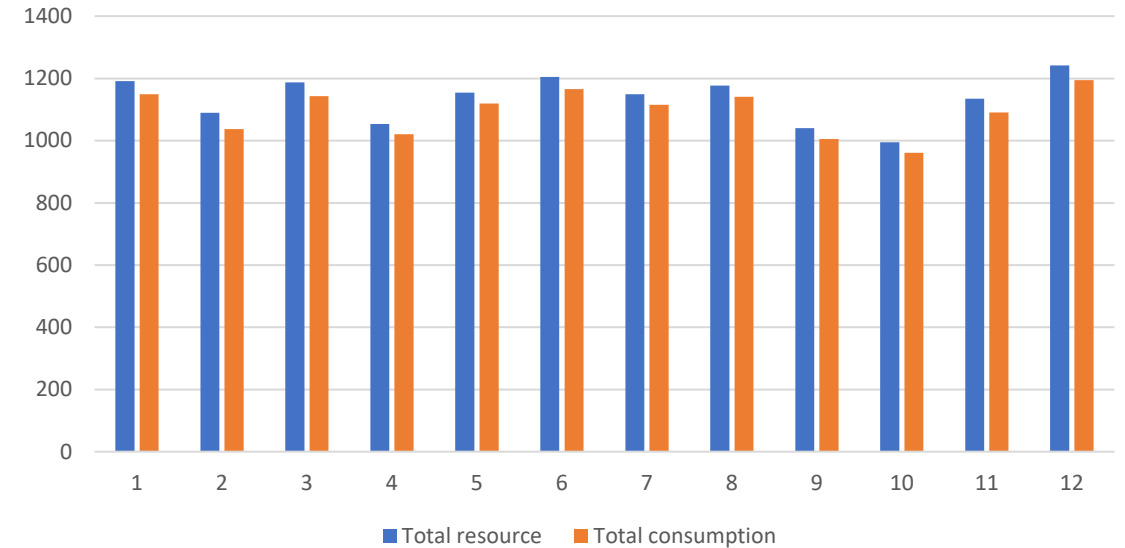


Electricity generation and consumption 2020



Total electricity generation in 2020 for 12 months amounted to 12871.7 million kW/h, while consumption was 12412.6 million kW/h.

Electricity generation and consumption 2019



in 2019, the total resource for 12 months is 13619.5 million KW/h, while the total consumption was 13144.7 kWh

One more crucial local challenges in energy sector of Georgia is increased consumption. As a result of this, the country is trying to implement hydropower and encourage wind and solar projects. Achieving this could have ensured the energy independence and the decrease of energy consumption, that would lead on development of Energy Efficiency.





Recently adopted main legislative documents:

- Law on Energy and Water Supply – Adopted 20/12/2019;
- Law on Production and Use of Energy from Renewable Sources – Adopted 20/12/2019;
- Law on Energy Efficiency – Adopted 21/05/2020;
- Law on Energy Performance in Buildings – Adopted 21/05/2020;
- Secondary Legislation has been partially implemented; additional legislation based on aforementioned laws are currently in development;
- Nationally Determined Contribution (NDC) and Climate Strategy Action Plan (CSAP) have been adopted by the GOG.

Important Development

- NECP 2021-2030 development (EE, RE and emissions targets);
- Energy Market Liberalization from mid-2021;
- Active development and Support Schemes for RE;
- Practical implementation of EE, EPB and RE laws' goals
- Increasing Energy Interconnection and Transit Potential of the country;





Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all



National Policy



Freedom, Rapid Development, Prosperity – Government Program 2018 - 2020



'Georgia's Regional Development Strategy for 2014 – 2021'



Georgia's Rural Development Strategy 2017 - 2020

Target 7.1

Georgia will ensure universal access to affordable, reliable and modern energy services throughout the county by 2030.

Indicators

- 7.1.1 Proportion of population with access to electricity;
- 7.1.2 Proportion of population with primary reliance on clean fuels and technologies
- 7.1.3 Proportion of population with access to reliable and modern energy

Activities



Solar PV Installation for the electricity off-grid settlements



Construction of electricity infrastructure



Gasification Plan 2019-2021



Gasification Plan 2022-2024

2015
99%

2019
100%

2030
100%

2019
58,8%

2030

2015
60%

2019
75%

2030
75%





Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all



National Policy

Target 7.2

Activities

By 2030, significant increase of renewable energy share in the total final energy consumption in Georgia

Indicator

Renewable energy (hydro, geothermal, solar, biofuel and waste) shares in the total final energy consumption will equal to 30%

✍ The Law on Encouraging the Production and Use of Energy from Renewable Sources was adopted.

- Resolution of the Government of Georgia: Support scheme for production and use of energy from renewable sources (hydropower plants)

✍ A micro power plant (up to 500 kW) can generate electricity for its own consumption and at the same time supply the distribution company with excess electricity

In 2019, a total of 156 subscribers were registered in the net metering system, with a total capacity of 2,158 kW.

In 2016-2019, 490 MW total installed capacity stations were put into operation, incl. 1 wind



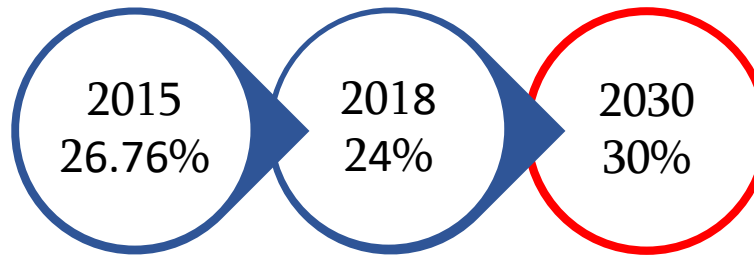
Freedom, Rapid Development, Prosperity – Government Program 2018 - 2020



‘Main State Policy directions in Georgia’s Energy Sector’



National Renewable Energy Action Plan





Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all



National Policy



Freedom, Rapid Development, Prosperity – Government Program 2018 - 2020



'Main State Policy directions in Georgia's Energy Sector'



'National Energy Efficiency Action Plan'

Target 7.3

By 2030, significant increase the rate of improvement in energy efficiency in Georgia

Indicator

Energy intensity is expected to be 5,787 GDP/TJ by current price (2014 year's price) in Georgia by 2030 which equals current energy consumption minus 10%

Activities



Energy Efficiency Law



Energy Performance of Buildings



Law on Energy Labelling





Undertaken actions and future plans



Today Georgia experiences a deficit in electricity supplies in winter, particularly in the period of November-January due to less water available from rivers and increased internal energy consumption. In addition, the percentage of imported electricity increases year after year. Given these conditions, the implementation of the Energy projects is of utmost importance;

1. a wind power plant with 6 turbines and a total installed capacity of 21 MW has been operating for 5 years. Kartli Wind Power Plant is the first wind power plant built in Georgia and the first commercial wind power plant built in the South Caucasus; **The GOG is about to increase the number of wind turbines in the coming years.**
2. Gardabani 2 LLC and consequently Power Plant was put into exploitation in 2020. The installed capacity of the power plant is the same (230MW) as the one of the first energy efficient thermal power plant in Gardabani which was launched in 2015.



Gardabani Power Plant 1 and 2



Kartli Wind Power Plant





Processes to be started/Good solutions



The government tries to develop and communicate a sound, clear and comprehensive strategy for the energy sector to eradicate energy deficit. New HPPs and other RE projects are on hold in anticipation of a new market model and support scheme, and the completion of existing HPP projects.

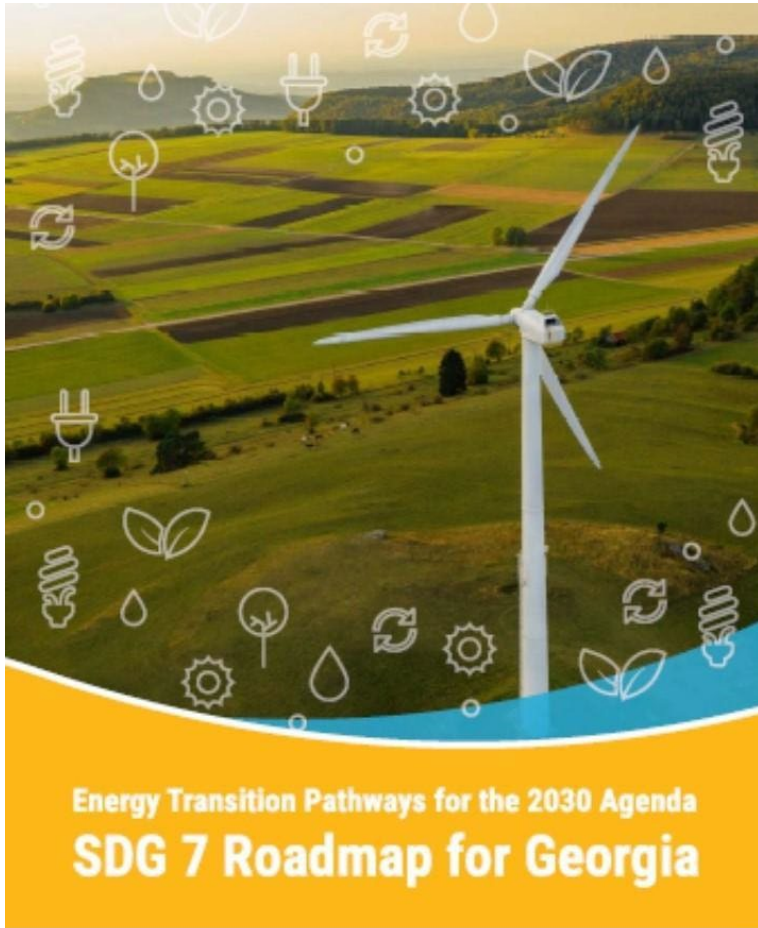
- 1. The Namakhvani HPP Cascade Project – Under Construction.** The HPP encompasses two separate HPPs on the Rioni River: The Lower Namakhvani HPP (333 MW) and the Upper Namakhvani HPP (100 MW)
- 2. Nenskra HPP Project - Under Construction.** Nenskra HPP with 280 MW of installed capacity will annually provide Georgia with total energy generation of 1'200.00 GWh which will be fully consumed by the local energy market;



Other ongoing Projects:

- 3. Mtkvari HPP** - with a designed capacity of 53.0 MW and expected annual energy generation of 251.5 GWh;
- 4. ONI 1 HPP** - with a total installed capacity of 122.5 MW and an expected annual generation of 441.2 GWh.
- 5. LENTEKHI HPP** - with a designed and installed capacity of 192 MW. This greenfield project has an expected annual energy generation of 668 GWh, and its expected annual output will comprise 6% of Georgia's total electricity consumption.





Georgia was a pioneer in using ESCAP's National Expert SDG Tool for Energy Planning (NEXSTEP) and was among the first countries in the region to develop a Sustainable Development Goal 7 Roadmap. The success of this cooperative effort is testament to our shared ambition for Georgia and the region to deliver on the sustainable energy vision of SDG 7.

The Roadmap proposed by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in collaboration with the Ministry of Economy and Sustainable Development (MoESD), Georgia contains a matrix of technological options and enabling policy measures for the Government to consider. It presents several scenarios that have been developed using national data, and which consider existing energy policies and strategies, and reflect on other development plans.

These scenarios are expected to enable the Government to make an informed decision to develop and implement a set of policies to achieve SDG 7 by 2030, together with the NDC.





Georgia's SDG 7 Roadmap

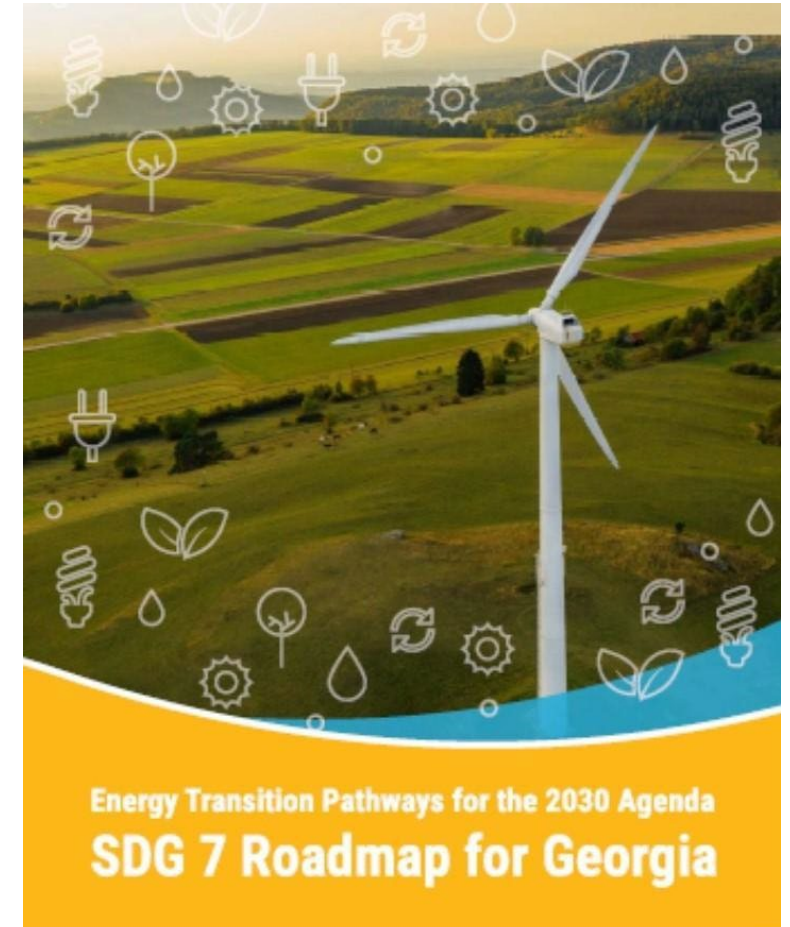


Georgia's SDG7 Roadmap, prepared with ESCAP and published in December 2020 is an important tool for planning the energy sector, which will enable Georgia to develop the right policies for the achievement of Sustainable Development Goal 7.

- ✓ The key objective of this **SDG 7 Roadmap** is to assist us develop enabling policy measures to achieve the SDG 7 targets.
- ✓ More information on **SDG 7 Roadmap** and its policy can be found on the following link: [Georgia's SDG7 Roadmap](#)



SUSTAINABLE DEVELOPMENT GOALS





Thank you!



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