



# Review of Developments in the Energy Sector of Georgia



**Ministry of Energy of Georgia**

August 2016

## Priorities of the Ministry for the last 4 years

1. Gasification
2. Individual Metering
3. Electrification of the Unlightened Villages
4. Investments
5. Transit Potential Enhancement
6. Cooperation with International Organizations
7. Infrastructure Development

## Gasification

- In 2012 year, **693,440 users** had access to the natural gas network.
- For the past 3 years, **276,661** new users received access to the natural gas.
- **Currently, in total 970,101 users have access to the natural gas network.**
- Till the end of the 2016 year is planned to add up to 42,000 new users to the network.

## Individual Metering

- In 2012 year, all three electricity distribution companies had **1,528,650 users**.
- For the past 3 years, **124,899 households** had individual metering system installed.
- **Currently, in total 1,653,549 users are connected to the power grid.**
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- Till the end of the 2016 year is planned to complete installation of the individual metering systems in the 47,505 households.

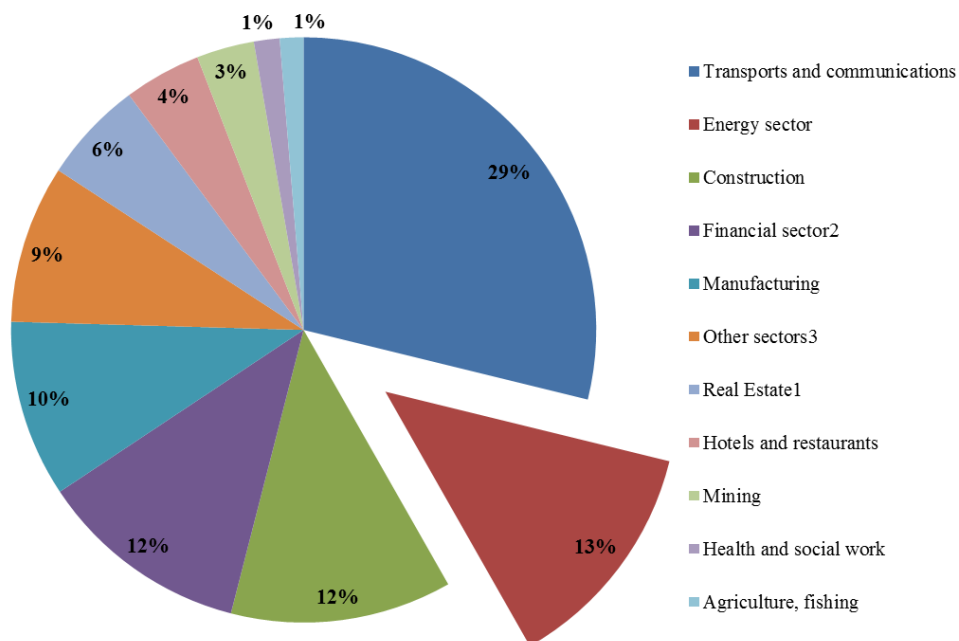
## Electrification of Unlightened Villages

- During 2013-2015, in accordance with the project “Light to every village” the Government of Georgia conducted **electrification of 24 villages**, which previously did not have access to electricity.
- In total, **630 new users** got access to electricity.
- As a part of the project, for electrification of the village Mutso was constructed 100 KW hydropower plant. This HPP ensures both supply of electricity to local consumers and the historical monument illumination.

# Investments

- In 2009-2012, the sum of foreign direct investments in Georgia was **2.84 bln USD**. The Energy Sector was the 4<sup>th</sup> in the ranking with **405 mln USD** share.
- In 2013-2015, the sum of foreign direct investments in Georgia was **4.05 bln USD**. The Energy Sector was the 2<sup>nd</sup> in the ranking with **525 mln USD** share.
- **Therefore, the total inflow of FDI in 2013-2015 period was increased by 42% (+1.2 bln USD) in compare with 2009-2012 period.**

Foreign Direct Investments in Georgia  
2013-2015 years



# Power Plants Commenced in Recent Years

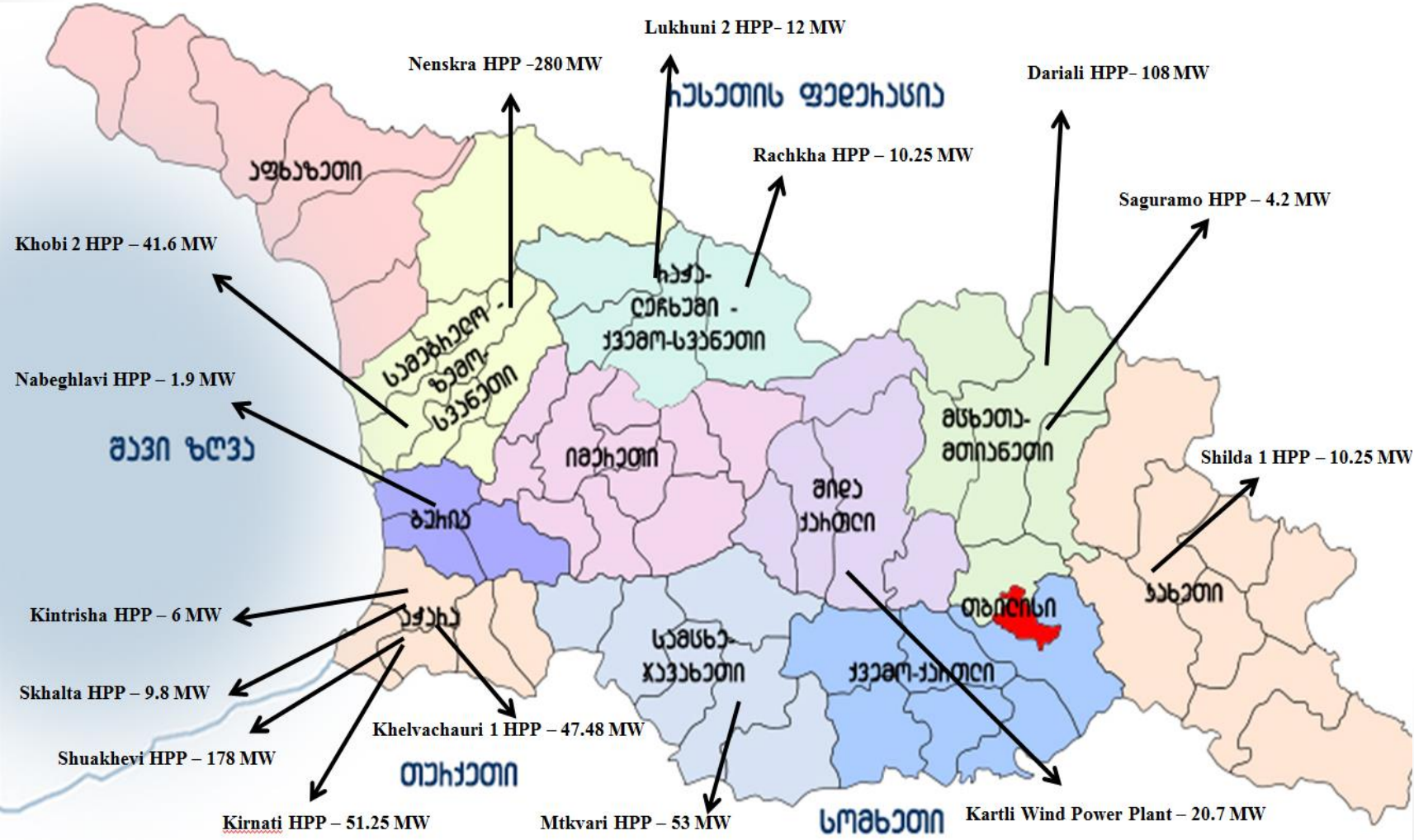
**Total Installed Capacity - 420 MW (540 mln USD Investment)**

N	Project	Company	Region	Installed Capacity (MW)
1	Bakhvi 3 HPP	LLC Bakhvi Hydro Power	Guria	10.00
2	Aragvi HPP	LLC Energo Aragvi	Mtskheta-Mtianeti	8.50
3	Shilda HPP	LLC Energia	Kakheti	5.00
4	Larsi HPP	LLC Energia	Mtskheta-Mtianeti	19.00
5	Akhmeta HPP	LLC Geoenergy	Kakheti	9.10
6	Kazbegi HPP	LLC Kazbegihesi	Mtskheta-Mtianeti	6.00
7	Paravani HPP	LLC Georgia-Urban Energy	Samtskhe-Javakheti	86.54
8	Pshavela HPP	LLC Stori Power	Kakheti	1.95
9	Alazani 2 HPP	LLC Georgian International Energy Cooperation	Kakheti	6.00
10	Khadori 2 HPP	LLC Peri	Kakheti	5.40
11	Racha HPP	LLC Georgian International Energy Cooperation	Racha-Lechkhumi and Kvemo Svaneti	11.00
12	Kazreti HPP	LLC Water Energy	Kvemo Kartli	2.50
13	Shakshaketi HPP	LLC Medgroup Georgia	Shida Kartli	1.50
14	Debeda HPP	LLC Hydro Energy	Kvemo Kartli	3.00
15	Gardabani TPP	JSC Partnership Fund and JSC Georgian Oil and Gas Corporation	Kvemo Kartli	231.20
16	Tkibuli TPP	LLC Saqnaxshiri	Imereti	13.20



# Ongoing Constructions

14 HPPs and 1 Wind Power Plant – 805 MW  
 Total Investment – 2 bln USD





# Ongoing Renewable Power Plant Investment Projects

- **Construction Stage – 15 projects (805 MW – 2 bln USD)**
  - *The construction of first Wind Power Plant – Kartli (20 MW) will be completed in 2016.*
- **Licensing Stage – 13 projects (786 MW – 903 mln USD)**
- **Feasibility Study – 82 projects (3,073 MW – 5.27 bln USD)**
  - *Six Wind Power Plant projects are under feasibility study (656 MW – 1 bln USD);*
  - *Two Solar Power Plant projects are under feasibility study (55 MW – 126 mln USD).*

**TOTAL: 110 Power Plant Projects – 4,664 MW – 8.2 bln USD**

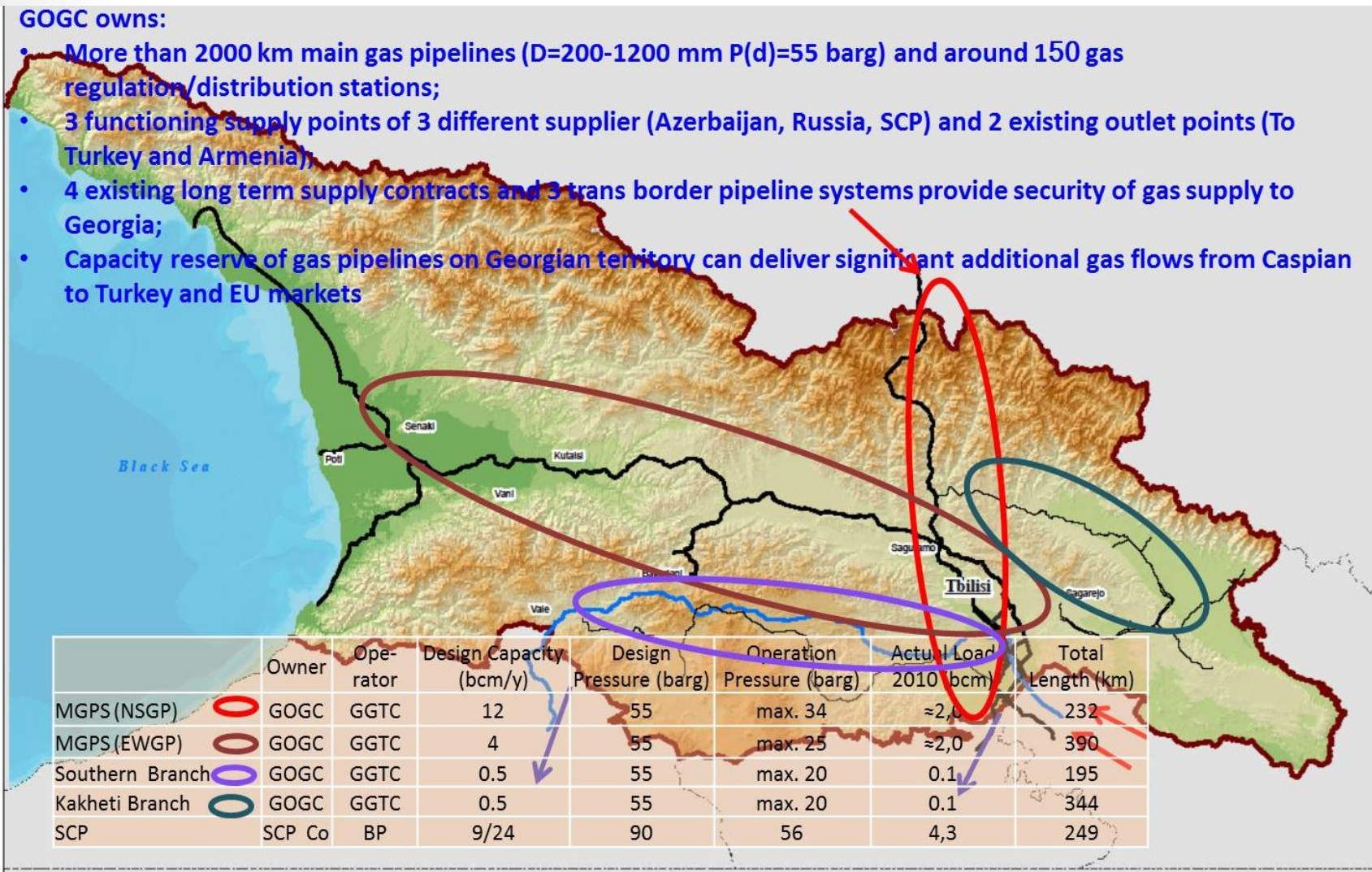
# Regional Energy Hub and Attracting Transit Country

- Reliable transit country and regional energy hub;
- Attracting trans-border trading opportunities, well-established infrastructure and new, developing interconnecting projects;
- Trilateral strategic cooperation between Azerbaijan, Georgia and Turkey;
- Successfully completed strategic projects – Caspian energy resources transit through pipelines, railways and terminals;
- Important transit potential for enhancing trade of Caspian region resources on international markets.

# Gas Transportation Infrastructure

## GOGC owns:

- More than 2000 km main gas pipelines (D=200-1200 mm P(d)=55 barg) and around 150 gas regulation/distribution stations;
- 3 functioning supply points of 3 different supplier (Azerbaijan, Russia, SCP) and 2 existing outlet points (To Turkey and Armenia);
- 4 existing long term supply contracts and 3 trans border pipeline systems provide security of gas supply to Georgia;
- Capacity reserve of gas pipelines on Georgian territory can deliver significant additional gas flows from Caspian to Turkey and EU markets



# Gas Transportation Infrastructure

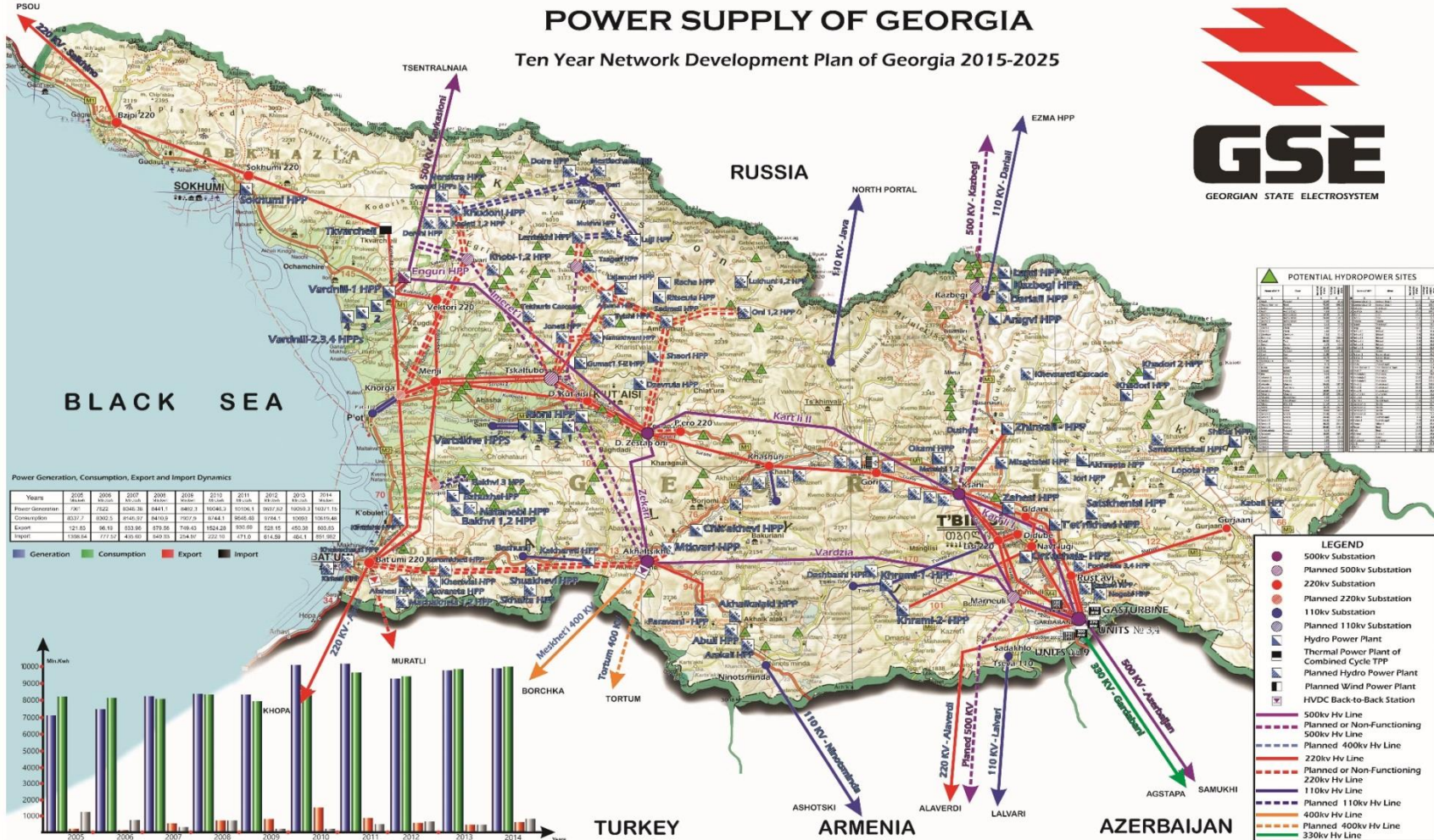
- The development of Shah-Deniz Project Phase II has started. In Georgia, the correlated to the project investments are expected to be up to 2 billion USD.
- 400 mln. USD cost goods and services will be directly purchased in Georgia.
- During the construction phase will be created 2,000 workplaces and after completion of the project 130 workplaces.
- Starting from the 2019 year, Georgia will receive additionally 1 bln. cubic meters of natural gas for the preferential price.



# Power Transmission Network

## POWER SUPPLY OF GEORGIA

Ten Year Network Development Plan of Georgia 2015-2025



# Power Transmission Network

In 2015 was approved “Ten year Network Development Plan of Georgia 2016-2026”, which envisions rehabilitation and further development of the Power Transmission Network. The transmission lines length will increase by 1700 km. The total investment will be more than 850 million USD.

- The new connecting with Turkey 400 kV transmission line and 500/400/220 kV substation “Akhaltsikhe” construction was completed. The investment cost of the project was 283 mln. Euro.
- The 220 kV transmission line “Senaki 1-2” and corresponding substation rehabilitation-reconstruction was completed, on which was spent 18 mln. USD.
- Was completed substations’ initial equipment, also protection and control systems rehabilitation, which was financed with support of USAID and cost 17 mln. USD.

# Cooperation with International Organizations

Ministry of Energy of Georgia is actively cooperating with various international and donor organizations, such as USAID, World Bank, EBRD, KfW and ADB. Among variety of the completed and ongoing projects can be highlighted:

- **“Georgian Transmission Grid Strengthening Project”** which is ongoing under financial support (60 mln USD) of the World Bank and will be completed in 2019.
- **“Enguri and Vardnili Hydro Power Plants Rehabilitation Project”** implemented in cooperation with EBRD, EIB and EU-NIF. The total cost of the project is 45 million Euro.
- **“Regional Power Transmission Enhancement Project”** is 48 million USD ADB project that will be completed in 2016.
- **“Construction of Additional Pipeline Segments in Eastern and Western Georgia”** is a USAID project which included several separate subprojects. The total cost of all of them was up to 18 million USD.





**THANKS FOR ATTENTION!**