

# Georgian Energy Development Fund, JSC

Overview 2014



# Investment in energy sector of Georgia

In order to facilitate investments several incentives are proposed to investors:

- ▶ Greenfield projects are based on Build, Operate, Own (BOO) principle
- ▶ Deregulated market for new HPPs
- ▶ State land with be transferred to investors by normative price
- ▶ Free third-party access to the grid
- ▶ No export license or VAT is applicable for exporting electricity
- ▶ Long-term PPA with ESCO and TSO
- ▶ Cross-Border Trade Agreement with Turkey
- ▶ Only 20% of Generated electricity is required to be left within Georgia
- ▶ Ministry of Energy offers a list of potential power plants with several preliminary researches made

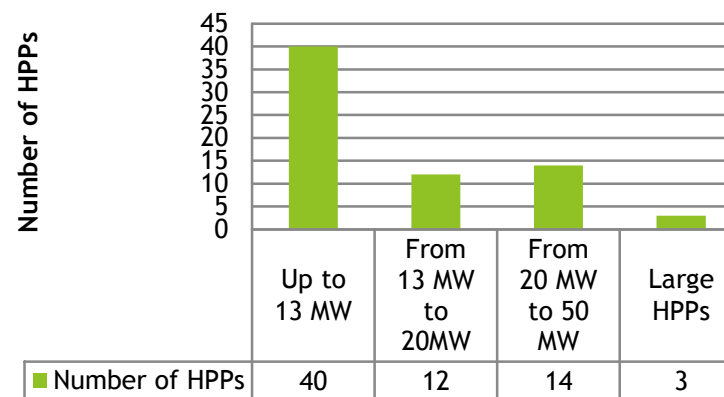


# Investment opportunities in energy sector of Georgia

Large Hydropower plants	Installed Capacity	Forecast Investment	Status
Namakhvani Cascade	450 MW	625 MUSD	Project Design Optimization
Nenskra HPP	210 MW	491 MUSD	Detailed Project Design process
Oni Cascade	270 MW	599 MUSD	Feasibility study
Khaishi HPP	400 MW	620 MUSD	Conceptual Design
Tobari HPP	200 MW	310 MUSD	Conceptual Design
Pari HPP	180 MW	297 MUSD	Conceptual Design
Lentekhi HPP	120 MW	189 MUSD	Pre-Feasibility Study
<b>Total</b>	<b>1830 MW</b>	<b>3131 MUSD</b>	

- Georgia has immense untapped hydro resources – it is assumed that only 20% of total hydro potential is utilized
- Georgia is one of the top country in water resources per capita. **300** out of **26,000** rivers are significant in terms of energy production and HPP Greenfield potential is 40 TWh

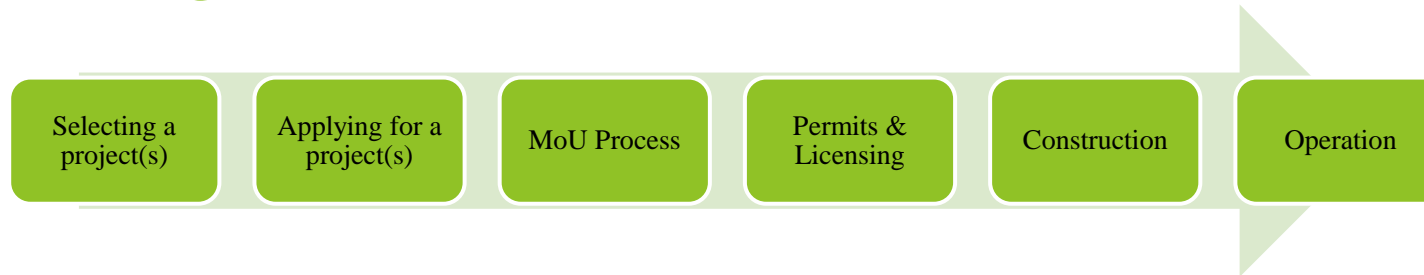
70 potential HPPs  
Total installed capacity 2125 MW  
Ttal expected generation 7605



Pre-feasibility study and concept design on these HPPs were done by Hydropower Investment Promotion Project (USAID) and Gross Energy Group

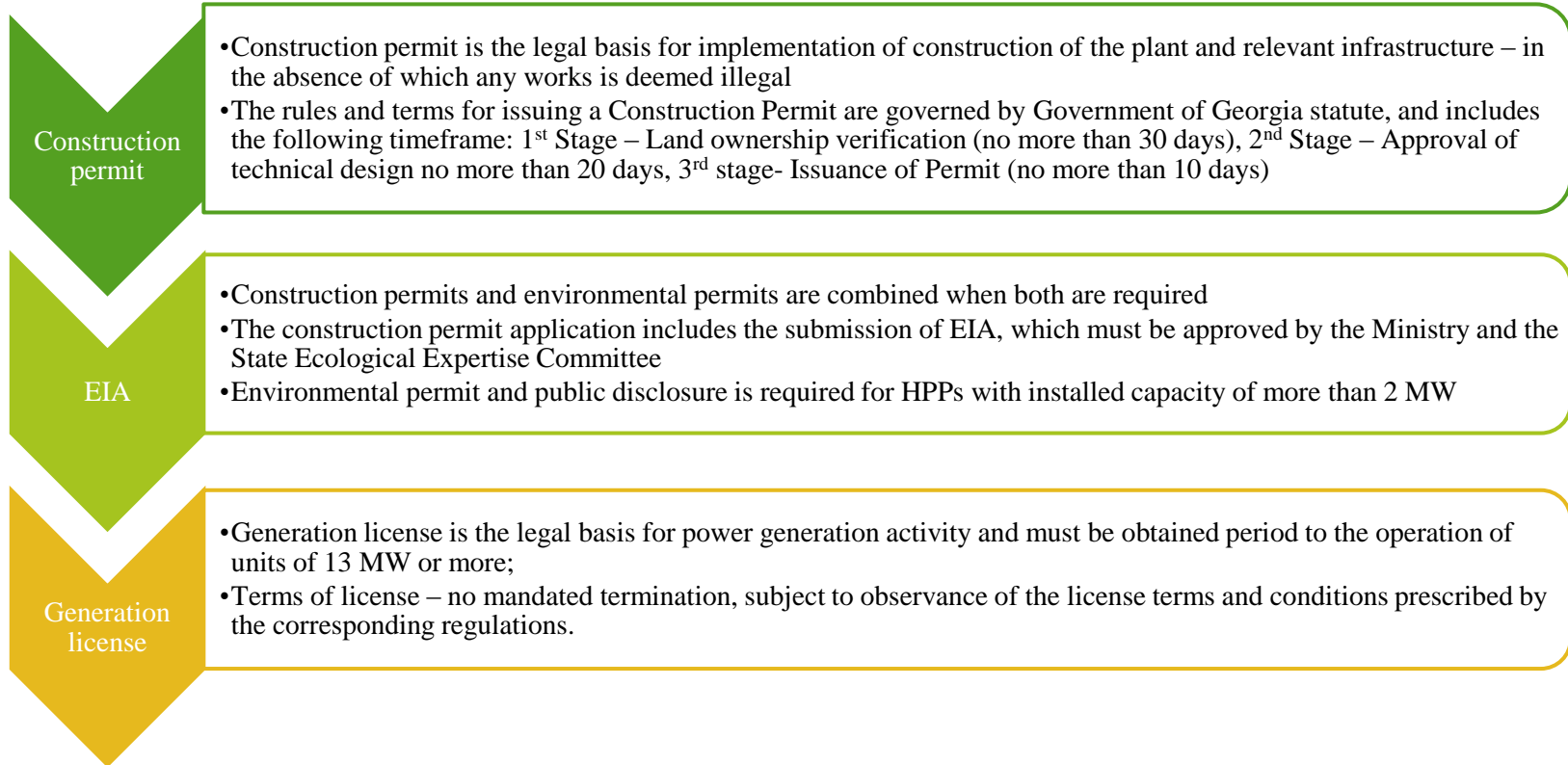
For detailed information about projects visit: [minenergy.ge](http://minenergy.ge)

# Power Plant Development Process in Georgia



- 1. Selecting a project(s)** - project can be selected either from the list offered by Ministry of Energy or researched independently
- 2. Applying for a project** – a letter to Ministry of Energy should be written to ask them a permission for developing the project.  
Memorandum with Government should be signed for every HPP with installed capacity more than 1 MW
  - If project is from list, Ministry of energy announces interest expression in order to find other interested parties on the project
  - If other interested parties occur, price required from ESCO for the 20% of electricity will be bidding criteria
- 3. MoU process**- Memorandum is signed between Government of Georgia, ESCO and Investor.
  - Memorandum has 2 phases: Development phase and Construction phase.
  - Some deliverables are required to reach on both stages and are checked by Ministry of energy.
  - Bank guarantee is required in order to secure the timeline specifies in Memorandum:
    - \$5 000 per MW on development phase (only if from list) and
    - \$100 000 per MW on Construction phase for HPPs with installed capacity <100MW,
    - if deliverable is not fulfilled until due date, bank guarantee is taken in force day by day deducting 0.5% of the amount each day until the left amount of bank guarantee doesn't equal to half of initial amount.
  - Price for 20% of generated electricity during first 10 years of operations is specified in MOU, this 20% of electricity should be sold to ESCO during September- March period

# Permits & Licences needed to develop power projects in Georgia



# Georgian Energy Development Fund

- ▶ Georgian Energy Development Fund (GEDF) was established in 2010 by the Government of Georgia to facilitate investments and development of the country's renewable energy sector.
- ▶ The legal status of GEDF is a Joint Stock Company.
- ▶ The team of the Fund consists of 14 employees.
  - ▶ The industry specific expertise through investment advisors & tech experts
  - ▶ Link to all governmental, administrative and business partners
- ▶ GEDF selects projects which are commercially viable and benefit private sector

# Activities & tasks of GEDF

Identification and analysis of potential “greenfield” renewable energy plant development sites

Jointly - with a private investors - develop projects with an exit option for the Fund at various stages of development

Consulting and Support for developing renewable energy projects;

Financing initial costs related to the development of identified renewable energy projects;

Facilitating project investment promotion

Support potential financing arrangements with international financial institutions (IFIs) and/or private financial entities

Provide risk mitigation support for investors regarding project development

# On-going projects by GEDF

## Hydro power projects

- Dariali 108 MW HPP under construction
- Tsablari 15 MW HPP at detailed project design level - auctioned
- Upto 130 MW of several medium HPP projects - feasibility stage
- Upto 40 MW of small HPP projects - pre-feasibility study completed
- Screening of 15 rivers for further investigations

## Wind power projects

- 20 MW Wind Farm project in Gori - measurement campaign
- Screening of several sites for further measurement campaign

## Consultancy

- Pre-feasibility study for >300 MW large scale project - completed
- Preliminary study for 150 MW wind farm project - ongoing
- Due Diligence for several small scale HPP projects - under discussion

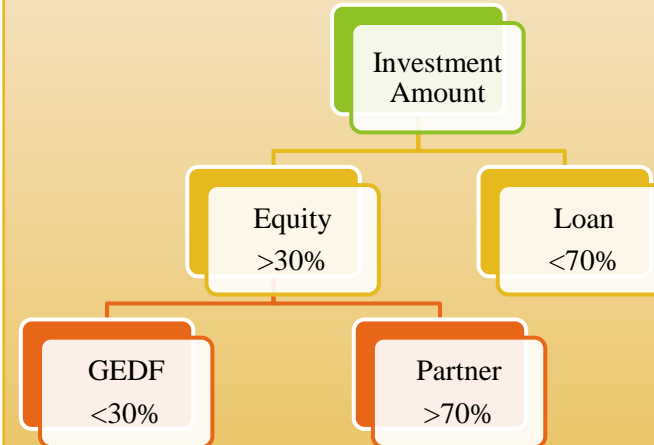


# Cooperation schemes with GEDF

## Service Agreement

- engineering consultancy for project scoping, preliminary design, etc...
- procedures needed for construction permit: mainly land ownership definition and other legal and administrative issues
- project management activities
- gathering project financing and making all relevant documents

## Shareholder Agreement



GEDF's exit strategy should be defined prior entering into shareholder arrangements

# THANK YOU!

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**GEDF**

Georgian Energy Development Fund