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 will 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

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

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

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
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

**Construction permit**
- Construction permit is the legal basis for implementation of construction of the plant and relevant infrastructure – in the absence of which any works is deemed illegal
- The rules and terms for issuing a Construction Permit are governed by Government of Georgia statute, and includes the following timeframe: 1st Stage – Land ownership verification (no more than 30 days), 2nd Stage – Approval of technical design no more than 20 days, 3rd stage- Issuance of Permit (no more than 10 days)

**EIA**
- Construction permits and environmental permits are combined when both are required
- The construction permit application includes the submission of EIA, which must be approved by the Ministry and the State Ecological Expertise Committee
- Environmental permit and public disclosure is required for HPPs with installed capacity of more than 2 MW

**Generation license**
- Generation license is the legal basis for power generation activity and must be obtained period to the operation of units of 13 MW or more;
- Terms of license – no mandated termination, subject to observance of the license terms and conditions prescribed by the corresponding regulations.
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

Investment Amount
- Equity
  - >30%
- Loan
  - <70%
- GEDF
  - <30%
- Partner
  - >70%
THANK YOU!

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