



Clean  
Energy  
Invest

# Adjaristsqali Hydropower Project



# Clean Energy Invest

Clean Energy Invest (CEI) is a Norwegian based hydropower company. CEI develops hydropower opportunities in countries with a functioning electricity sector and untapped hydro power potential.

Clean Energy Invest highlights:

- The founders of the company have held senior management positions in the Norwegian electricity sector and have substantial international hydropower experience
- Members of the CEI core team have in-depth knowledge of the Georgian and Turkish electricity sector
- CEI's technical director has been leading the development of several large hydro projects internationally in recent years
- The Adjaristsqali project is developed in cooperation between Clean Energy Invest and IFC, member of the World Bank Group, through InfraVentures its early phase equity instrument

## The Adjaristsqali project

CEI has, after a competitive tender, been awarded a license to develop the hydro-power potential of the Adjaristsqali river in the Autonomous Republic of Adjara, in South Western Georgia close to the Turkish border.

Adjaristsqali hydro power project is expected to supply the Georgian and Turkish power systems with clean renewable energy.

The project will also enable Georgia to use more of its energy resources to meet electricity demand during the winter.

The project is expected to have an installed capacity of 175 - 300 MW. The final design will be based on the recommendations in the feasibility study currently under development.

It is planned to be constructed between 2-5 hydropower stations and the average annual production will be between 700-1200 GWh. The estimated construction cost is between 350 -650 million USD.

If developed as planned, the Adjaristsqali project will be one of the largest foreign direct investment projects in Georgia to date, and a main contributor to export earnings for the country.

The aim is that the Adjaristsqali project will contribute with regional employment opportunities for local people as well as significant tax income to the municipalities in the region where the project will be developed.



## Project activities

The project is intended built as a two to five-stage cascade, interconnected by transmission lines. The project has been divided into four main phases:



As of mid 2011 the project had completed the pre-feasibility phase, where market conditions as well as preliminary technical studies where undertaken.

### Activities undertaken during the pre-feasibility phase:

- Pre-feasibility study prepared by Georgian engineering consulting firm Gross Energy Group
- Optimization study prepared by the Norwegian engineering consulting firm Norconsult
- Implementation agreement negotiated with the Ministry of Energy in Georgia and approved by the Georgian Cabinet on the 12th April 2011
- Joint Development Agreement for the project signed with IFC, member of the World Bank Group, as a joint development partner for the project
- Preliminary transmission and market studies undertaken
- Mott MacDonald (MM), selected as main consultant for Feasibility and Detailed Tender Design Study as well as Environmental and Social Impact Assessment (ESIA) study
- Gross Energy Group and Gamma Consulting, selected as Georgian engineering and ESIA partners for the project

The project is currently in the feasibility phase, which started in April and will be completed within 13 months.

### Activities planned for the feasibility phase:

- The main purpose of the feasibility study is to identify whether the project is feasible for development from a technical, financial and environmental and social point of view. If the conclusion is positive, MM will develop the detailed design and tender documents
- Several options for project locations are currently being considered (see map on next page)
- A comprehensive site investigation programme has been commissioned and a number of drill rigs will be in the Adjarisqali area to investigate the ground conditions starting in June 2011
- Land owners affected by the project will be contacted by the Georgian company Geographic LLC which will assist the land owners with accurate measurement of the land plots and registration of the land in the Public Property Registry
- A number of Georgian and international experts will visit the sites in the coming months
- The construction phase is expected to be launched in late 2012/early 2013 and may take up to 6 years to complete the entire cascade

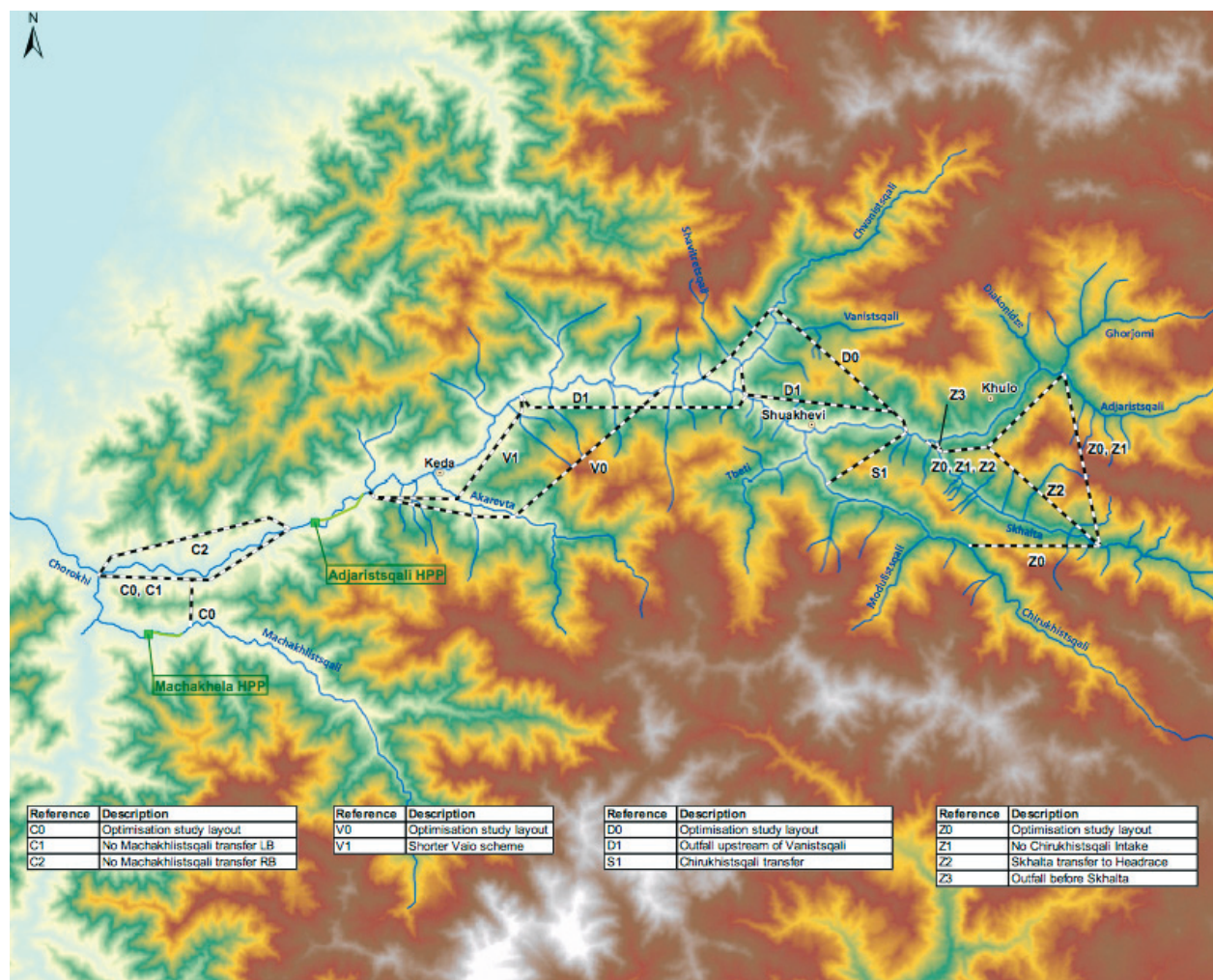


## Project location

The project is located along the Adjaristsqali river and its tributaries. Mott MacDonald, a leading UK Engineering company will examine and propose the final location and shape of the project.

Final design is expected in the fall of 2011. Ground investigations, topographic surveys and an ESIA study will be undertaken and will inform the final design of the scheme.

The map below shows possible layouts for the project at the start of the feasibility phase.



- Selected towns
- Alternative tunnel options
- Existing hydropower plant
- Existing tunnel
- River network

Source Map: Mott MacDonald Ltd



## Impact on people in the Adjara region and how they can participate

It is important for the team developing the project to create positive social and environmental impacts for the population living in the region.

- The project is expected to create a number of jobs for the population in the Adjara region during the building phase including construction, catering, administration, transport etc.
- During the operations phase of the project, permanent jobs will be created to run and maintain the power plants
- Through payment of local property taxes, the project will also be a significant contributor to the budgets in the municipalities along the Adjaristsqali river
- The project is planned with limited reservoir capacity and the areas that may be flooded are mostly non-agricultural land with limited alternative use
- All landowners affected by the project will be treated in accordance with the Georgian national regulations and IFC Performance Standards
- An international standard ESI study in compliance with IFC policy standard is being undertaken by Mott MacDonald which will study in detail the environmental and social consequences of developing the project
- A three month public consultant period is planned, starting in February 2012 where the public affected by the project as well as other stakeholders will get the opportunity to provide their input on the planned project





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