

Bugoye13.0MWRun-of-River HydropowerProject

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1 PROJECT DETAILS

1.1 Summary Description of the Project

Tronder Power Ltd has implemented the Bugoye hydropower project, a run-of-river plant. The project is located at the foot of the Rwenzori Mountains in the Kasese District, Western Uganda. The project diverts water from the river Isya and runs via a five kilometer-long canal into a 950 meter-long penstock with a head of 160 meters. After passing through two turbines, the water is discharged to the Mubuku River. The project uses the remaining head between two existing hydropower plants; Mubuku 1, upstream of the project site, and Mubuku 3, downstream of the project site. The hydropower plant is connected to the national grid via a 6 km long transmission line routed to the Nkenda substation. The primary purpose of the project is to supply affordable renewable energy to the population of Uganda.

This is a CDM registered project. The reference number of the project is UNFCCC ref no: 3017 and was registered on 01 January 2011. The plant was commissioned and synchronized to the grid on 07 October 2009. The weblink for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

1.2 Sectoral Scope and Project Type

According to the categorisation system of the Clean Development Mechanism, which is part of Green House Gas (GHG) program that has been approved by the VCS board, the project is categorised as:

- **Type:** Energy industries (renewable-/non-renewable sources)
- **Category:** Grid connected renewable electricity generation – AMSI.D., version 15
- This is not a grouped project. Please refer section A.4.5. of the registered PDD. The weblink for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/SGS-UKL1288172340.56/view>

1.3 Project Proponent

Contact details of the person responsible for development of baseline and monitoring methodology is given below:

Tronder Power Ltd.
 PO Box 11103, Crusader House, 3 Portal Avenue, Kampala, Uganda
 Tel: +256(41)4340243-Fax: +256(41)4257861
 Email: post@tronderpower.com
 Contact names: Annicent Busingye (General Manager), Losio Lemuresuk Chaplin (Operational Manager)

1.4 Other Entities Involved in the Project

Not applicable

1.5 Project Start Date

Date of commissioning and synchronization to the grid: 07-October-2009.

1.6 Project Crediting Period

7 October 2009 to 31 December 2010 (Both the days included). Total number of years: 1 year, 2 months, 25 days

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

The crediting period for the project is 7 October 2009 to 31 December 2010 (Both the days included).

Please refer section A.4.3. of the registered PDD. The web link for the same is mentioned below: <http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

The project activity is neither a micro project nor a mega project, since the emission reductions are 51,177 tCO₂e which are neither below 5000 tCO₂e/annum or nor above 1000000 tCO₂e/annum.

Project	√
Large project	

Years	Estimated GHG Emission reductions or removals (tCO ₂ e)
Average annual ERs	51,074 tCO ₂ e (As per registered PDD, section A.4.3)

1.8 Description of the Project Activity

Not applicable.

1.9 Project Location

The detailed location of the project activity is made available in the registered PDD. Please refer the registered PDD, section A.4.1.4. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

1.10 Conditions Prior to Project Initiation

This is a Greenfield project. The project activity replaces the carbon intensive grid electricity. The proposed project activity effectively utilises water resources to generate power in a sustainable manner. Thereby reducing the dependence on fossil fuel based generation units and as there are no associated emissions with this project it contributes to the reduction of green house gases (GHG) emissions.

Please refer section A.2. of the registered PDD. The web link for the same is mentioned below: <http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

Not applicable

1.12 Ownership and Other Programs

1.12.1 Right of Use

For the ownership details of the project any of the following may be referred to:

- Commissioning certificates.
- Power Purchase Agreements signed with Uganda Electricity Transmission Company Limited (UETCL).
- Host country approval letter.

1.12.2 Emissions Trading Programs and Other Binding Limits

The net GHG emission reductions or removals generated by the project will not be used for compliance with an emission trading program or to meet binding limits on GHG emissions.

1.12.3 Participation under Other GHG Programs

This is a registered CDM project. The reference number of the project is UNFCCC ref no: 3017 and it was registered on 01 January 2011. Please refer to the registered PDD. The web link for the same is mentioned below:

<http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

This project has not been rejected under any other GHG programs.

1.12.4 Other Forms of Environmental Credit

The project has been purely taken up as a CDM project and has not been applied for any form of environmental credit. The project is registered at UNFCCC with a reference number UNFCCC ref no: 3017¹. The project activity is claiming credits under the VCS program for the pre-registration period.

The hydropower generation forming a part of this project activity has not been applied for any other form of environmental credits.

1.12.5 Projects Rejected by Other GHG Programs

Not applicable.

1.13 Additional Information Relevant to the Project

Eligibility Criteria

This is not a grouped project hence the criteria is not applicable.

Leakage Management

¹ <http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

The Project activity uses the diesel in small quantities required for emergency situations only.

Please refer section B.6.1. of the registered PDD. The weblink for the same is mentioned below:
<http://cdm.unfccc.int/Projects/DB/BVQI1254738519.15/view>

Commercially Sensitive Information

There is no such information which is deemed as commercially sensitive.

Further Information

Not applicable.

2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

Not applicable.

2.2 Applicability of Methodology

Not applicable.

2.3 Project Boundary

Not applicable.

Source		Gas	Included?	Justification/Explanation
Baseline	Source1	CO ₂		
		CH ₄		
		N ₂ O		
		Other		
	Source2	CO ₂		
		CH ₄		
		N ₂ O		
		Other		
Project	Source1	CO ₂		
		CH ₄		
		N ₂ O		
		Other		
	Source2	CO ₂		
		CH ₄		
		N ₂ O		
		Other		

2.4 Baseline Scenario

Not applicable.

2.5 Additionality

Not applicable.

2.6 Methodology Deviations

Not applicable.

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

Not applicable.

3.2 Project Emissions

Not applicable.

3.3 Leakage

Not applicable.

3.4 Summary of GHG Emission Reductions and Removals

Not applicable

Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
Year A				
Year B				
Year C				
Year...				
Total				

4 MONITORING

4.1 Data and Parameters Available at Validation

Not applicable

Data Unit/Parameter:	
Data unit:	
Description:	
Source of data:	
Value applied:	
Justification of choice of data or description of measurement methods and procedures applied:	
Any comment:	

4.2 Data and Parameters Monitored

Not applicable

Data Unit/Parameter:	
Data unit:	
Description:	
Source of data:	
Description of measurement methods and procedures to be applied:	<i>Identify how the data/parameter is measured</i>
Frequency of monitoring/recording:	<i>Identify measurement and recording frequency</i>
Value applied:	<i>Provide estimated value for the purpose of calculating ex-ante GHG emission reductions or removals</i>
Monitoring equipment:	<i>Identify equipment used to monitor the data/parameter including type, accuracy class, serial number of equipment</i>
QA/QC procedures to be applied:	<i>Identify calibration information such as frequency, date of last calibration and validity</i>
Calculation method:	<i>If applicable</i>
Any comment:	

4.3 Description of the Monitoring Plan

Not applicable

5 ENVIRONMENTAL IMPACT

Not applicable

6 STAKEHOLDER COMMENTS

Not applicable