

# INVESTING IN RENEWABLE ENERGY

## Gaseke Hydropower Plant

In 2015, the Rwanda Green Fund (FONERWA) invested in the construction of the Gaseke Hydropower Plant in Gakenke District, Northern Province. The power plant came as a solution to the lack of electricity in the area. The 500 kW plant is now providing clean power to communities living around the Gaseke river and demonstrates the potential of small-scale renewable energy to meet the country's electrification targets. Through the generation of renewable energy, this fund investment has created hundreds of green jobs and prevents 3,321 tonnes CO<sub>2</sub>-eq from being emitted into the atmosphere every year.

Rwanda has the vision to become a low carbon, developed economy by 2050. To achieve this, the country is rapidly expanding both on grid and off-grid connections. In the short term, Rwanda aims to achieve 512 MW of installed power generation capacity by 2023/24 and universal access by 2023/24.

The Rwanda Green Fund is supporting this effort by investing in renewable energy production. A partnership with Novel Energy to construct the Gaseke Hydropower Plant in Gakenke District is just one such example. The fund's support of approximately Rwf 1.1 billion was provided through its credit line mechanism, a collaboration with the Development Bank of Rwanda (BRD).

### INVESTMENT MILESTONES

- Construction of a 500 kW hydropower plant
- Connection of the power plant to the national grid
- Transfer of technical operations and maintenance skills to local technicians electricity access to local communities





“ We have been able to implement our vision of developing the 500 kW Gaseke hydro power plant with the support received from FONERWA. Our plant produces green energy and contributes to the national grid. Project like ours also help increase access to electricity at the national level ”

Theoneste Nizeyimana Gatsinzi,  
Manager of the Gaseke Hydropower Plant

Protegene Hagenimana, a young technical graduate who lives in a village along the Gaseke river has been working at the plant since August 2016. The fund's investment in this project has helped improve the standards of living for the families of Protegene and his colleagues working at the plant

“ With the salary I have earned, I bought six cows, two bicycles and I have also built a house for my parents. ”

In addition to the income he earns, Protegene says that the plant is helping him improve his technical skills.

“ It's not just money that I'm getting from my work here; I am continuously acquiring new technical and engineering skills that will help me mature into an entrepreneur and some day I will be able to build a similar plant on my own, ”

Protegene.



## CHALLENGE SOLVED

At the time of the project's commencement, Rwanda's average energy production cost was US \$c 30 per kWh. This successful investment in the development of the Gaseke hydropower project has reduced this high energy production price by providing cheaper (by 45%) and cleaner energy to the national grid.. This project was successfully delivered before time and has been operational since February 2017 with a capacity of 500 kW - sufficient to power four sectors of Gakenke District.



“ In the past, our working hours were limited due to unreliable electricity supply. Running an electricity dependent business here was risky. Thanks to the development of the Gaseke power plant we now have access to reliable electricity supply, which helps me operate my welding business efficiently; in addition, my children can now do their homework at night without straining their eyes. . When I look back, I do release what we had missed out on all these years without electricity and how my life has changed for the better today. ”

**Fulgence Mutabeshya,**  
Gaseke resident and a business owner



## RETURN ON INVESTMENT

**3.3**

million units of electricity generated per year

**400+**

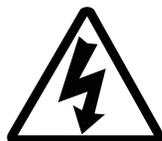
green jobs created

**500**

kWh power added to the national grid

**3,321**

tonnes of CO<sub>2</sub>-eq prevented from being emitted into the atmosphere every year



Energy price reduced through cheaper supply



“ I am happy to be working here as I want to contribute towards building a greener Rwanda. In the past, we collected firewood for cooking and used oil lamps for lighting, as we did not have access to . Today, we use clean energy as a substitute to perform our daily household activities. ”

Marceline Namahoro, an employee of the Gaseke Hydro Power Plant



## GREEN JOBS

From the construction phase until today, the plant has created more than 400 green jobs, and 130 part-time jobs have been created on a rolling basis.

Before the plant became operational, communities surrounding the plant had limited access to electricity. The construction of the Gaseke Hydropower Plant has addressed this challenge and been welcomed by local residents.

## FUTURE PLANS

Novel Energy Limited aims to increase its footprint in the Rwandan renewable energy sector by developing more projects of similar nature to support the Government electrification plans. The company continually invests in training their plant operators to help them optimally operate and maintain this plant.

With the support of the Rwanda Green Fund, Novel Energy has also developed the country's first rice husk power plant in the Eastern Province of Rwanda. These efforts by the Novel Energy are in line with the Government's agenda to improve the lives of local Rwandans through socio-economic transformation.



**It makes me happy to help provide green electricity to my local community and reduce deforestation. With the money I have earned so far working as an operator at the Gaseke hydropower plant, I have been able to build a house and I am paying for educating my younger brothers.**



Martin Nzayisenga, an employee of the Gaseke hydropower plant

## RWANDA GREEN FUND

The Rwanda Green Fund is a national environment and climate change fund that invests in public and private projects that have the potential for transformative change and that align with Rwanda's commitment to building a green and climate resilient economy. Learn more at [www.fonerwa.org](http://www.fonerwa.org) or follow us on Twitter at @GreenFundRw.

## FUND PARTNERS

This fund is thankful to our partners who have joined us on the journey to build a green Rwanda and we look forward to even greater impact in the future.

