## QUARTER 1 2022 NEWSLETTER EDITION

This First Quarter Issue No.7 highlights energy successful stories that continue to move lives through sustainable solutions, taking lead on championing continuous awareness, focusing on the private and public players' involvement in the Sector.

### **SECTOR NEWS**



### MORE THAN 1.8 MILLION HOUSEHOLDS IN RWANDA HAVE ACCESS TO ELECTRICITY BY THE END OF THE YEAR 2021

Currently, nearly 85.16 percent of schools are connected to electricity, whereas health centers and hospitals have 95.7 percent electricity. In order to speed up the distribution of electricity in remote areas located far from the grid network and designated to get off-grid electricity, a new support program dubbed "Nkunganire Project" has been set up

providing subsidies to the cost of solar home systems and therefore enable 370,000 households to buy the systems at a very low price and get solar electricity. The subsidies per solar system depend on the Ubudehe categories of the beneficiaries. It specifically caters to citizens belonging to the first, second, and third categories of Ubudehe. This program contributed to increasing the number of households using off-grid solutions up to 19.4% by end of the year 2021, and the plan is to end the year 2024 with around 30 percent households.

In addition to electricity distribution projects, a number of power plants are being built in Rwanda that will increase Rwanda's generation installed capacity. In 2009, Rwanda had only 89 megawatts of electricity. The amount of electricity has now more than doubled, and there are plans to build more power plants. In 2021, Rwanda gained more megawatts from new completed power plants including the Giciye 3 hydropower plant, Nyirabuhombohombo which was renovated, and the Hakan Peat Power plant in Akanyaru swamp which is now generating 30 megawatts while the remaining megawatts Among the projects expected to be will also be added shortly. completed by 2022 include the Shema Power Lake Kivu project building a Methane Gas to a power plant in Lake Kivu which will generate 56 megawatts. The first phase of the project is expected to start generating 14 megawatts, by 2022 and gradually add the remaining megawatts till the full completion of the project. There is also another project that will be completed very soon the construction of the Rusumo Hydroelectric Power plant which will generate 80 megawatts to be shared between Rwanda, Tanzania, and Burundi. Each country will gain 26.7 Megawatts. It is expected that by 2024 all households in Rwanda will have access to electricity, both on on-grid and off-grid solar-powered networks.

In order to boost Rwanda's economy, Energy Private Developers' members together with the government of Rwanda committed to providing electricity to the entire population of the country and to increasing the country's power generation capacity so that all those who need electricity for productive use purposes get enough electricity.

According to statistics, by end of the year 2021, 68% of households, approximately around 1,844,126 households in Rwanda had access to electricity both on-grid and off-grid.



# THE UPDATED ELECTRIFICATION PLAN INCREASES TARGETED ON-GRID CONNECTIONS TO 70% BY THE YEAR 2024

In an effort to further boost Rwanda's economy, the Government of Rwanda has committed to 100% electrification by the year 2024. Rwanda Energy Group (REG) unveiled a new electrification plan, whereby the number of targeted households connected to the grid was increased from 52% to 70% while those to be electrified through offgrid solutions was reduced from 48% to 30%.

Rwanda has made tremendous achievements toward universal electrification. The number of households having access to electricity has sextupled in only 10 years. REG statistics indicated that access to electricity in Rwanda is estimated at around 68.2% as of January 2022 and the number continues to rise.

Ron Weiss, the Chief Executive Officer of REG, said the plan aims at boosting the country's economy, by creating opportunities for those who need to set up new factories or create new businesses. "This reviewed plan mainly focuses on areas which have economic activities such as industries, markets, and handcraft centers as well as local entities providing basic services such as hospitals, schools, administrative offices, and many others. It's our primary mandate to extend our network to those areas," he said. Ron Weiss says that other factors based upon when increasing the number of villages to be connected to the grid include proximity to the existing network, the number of households located in those villages as well as fact that residents are not scattered but rather live in agglomerations.

"When people live in scattered houses, it becomes hard for the Government to provide all necessary infrastructure to everyone. In our case, one pole can electrify 8 houses. But when these houses are scattered, each house needs its own pole, and this increases the cost of electrification." He added.

Ron says that people living in off-grid areas have the opportunity to get solar home systems at a lower cost. "The Government has put in place a project to enable poor households located in off-grid areas to afford the prices of solar home systems. The project provides subsidies on the cost of the systems depending on the Ubudehe categories of beneficiaries. Those belonging to the 1st category get a subsidy equaling 90% of the price and only pay 10%, those in the second category get 70% and only pay 30% of the price, while those in the 3rd category get 45% and only pay 55% of the price". He said that REG signed a cooperation agreement with solar home systems vending companies that will be distributing the systems under the program.

### **PARTNER NEWS**



ENHANCING ENERGY ACCESS IN RURAL RWANDA

Between 2013 and 2020, EnDev's Results-Based Financing Facility piloted 17 projects across 14 countries in Africa, Asia and Latin America, covering a wide range of modern energy technologies to enhance energy access markets with funding provided by UK Aid through the Foreign, Commonwealth & Development Office (FCDO)

The key objective of the VG RBF was to boost energy access and support private companies, rewarding first movers and pilot projects which would demonstrate both technical and financial viability, but also allowing firms to gain experience and improve their business models along the way. The EnDev VG RBF raised significant interest from the private sector, with a total of 52 mini-grid applications some of which were from EPD members over 6 calls for proposals from November 2014 to December 2017. Beneficiaries would vary between local developers and international companies based in Rwanda, with the majority of applicants having limited experience in developing mini-grids. In the later calls, the number of shortlisted applicants increased, highlighting that the quality of proposals improved. Key success factors for this positive development were (1) Endev's support

for proposal development and (2) the increasing private sector interest in more experienced companies entering the market. The third crucial success factor for mini-grid developers was timing: despite the improvement in the quality of applications.

The EnDev VG RBF project provided access to electricity to more than 10,000 people. Four companies were supported, resulting in one hydro mini-grid, two solar AC mini-grids, and 22 solar DC nano-grids. Through these projects, more than 350 MSMEs and 20 social institutions gained access to electricity, creating over 100 jobs. The third crucial success factor for mini-grid developers was timing: despite the improvement in the quality of applications, only four companies successfully commissioned projects. One of the reasons is the importance to streamline site selection with the final NEP, which was developed from late 2017 until June 2019. Based on the mapping of proposed projects and planned extension of the national grid, several projects had to withdraw due to imminent grid encroachment.



POWERHER ON PROMOTING WOMEN INCLUSIVITY IN

#### THE ENERGY SECTOR

*POWERHer*, a network of women in the energy sector assembled more than 85 women in its first "Membership Cultivation Event". POWERHer aimed to provide a networking opportunity for its members, increase interest in participation, and promote gender inclusiveness in the energy sector in Rwanda.

Women in the energy sector in Rwanda face many challenges. They lack the professional development necessary to successfully apply for jobs, they lack access to job opportunities, they have limited understanding of their potential roles and contributions to the sector and they struggle with limited self-confidence and willingness to learn new things.

Companies in the energy sector also face challenges in increasing the number and seniority of women in their staff. These include workplace cultures that foster gender stereotypes and limit women's inclusion in opportunities. This erodes their self-confidence and leads to women obtaining fewer advancement opportunities and receiving lower compensation than their male colleagues. As a result, women leave at higher rates and underperform compared to men.

At the gathering, POWERHer members raised issues faced by women in the sector and proposed solutions and actions to be taken, including developing clubs and professional development and employment readiness training for college/university women, creating internship opportunities for women, launching a mentorship program and training women about hands-on skills to create their own businesses and fundraise.

POWERHer President Mukwindi Uwineza Nicole concluded by encouraging members to keep making impacts through various activities prepared by the network and she encouraged her fellow women to be ready to inspire, mentor, coach, and attract more women, quality women in the sector!

Alex Twahirwa, the Women in Rwandan Energy (WIRE) Manager for USAID's East Africa Energy Program said "As rightfully said by the previous speakers, the event (Membership Cultivation Event) had yet again vindicated the power of networking". I have no doubt that the

outcomes of the event will further deepen the POWERHer members' understanding of the current status of the network, the network's future aspirations, and strategies to reach there.

### MEMBERS NEWS



After SHS kits distribution, technicians go house to house to do installations

#### CANA CHALLENGE LIGHTS UP TO 600 HOUSEHOLDS

The Cana Challenge initiative allowed MUNYAX ECO to fulfill its longtime wish to extend the use of solar energy to rural areas, therefore contributing to Universal electricity access in a sustainable and affordable way.

Through extensive brainstorming and teamwork, MUNYAX ECO has now been able to light up **600 households** through its Solar Home Systems (SHS), which not only allows the beneficiaries to use light bulbs but also to charge their phones and use the radios as well.

The Cana Challenge initiative has allowed us to experience the most rewarding part of our work; seeing children be able to do their homework in a well-lit room, families assemble around the radio to listen to shows or to music, the elder smile at the ease of seeing their surroundings and the overall smiles of people whose lives have been changed. Our work with the Cana Challenge is far from being over. We continue our commitment to being professional, reliable, honest, and to prioritize teamwork in the achievement of the national goal of Universal Access to Electricity by 2024 and hope to make the right partnerships along the journey. **#Energy is Life** 



### ENGAGING AND EDUCATING MUSANZE DISTRICT RESIDENTS ON E-WASTE AND ITS RECYCLING IMPORTANCE

In collaboration with Enviroserve through MoU signed with Energy Private Developers Solar member companies, 2,778 tons of e-waste have been collected, 2,500 tons of e-waste dismantled, 550 tons of solar e-waste collected, 1,648 tons of CO<sub>2</sub> emissions mitigated and 413 green jobs created. Despite this, the number of solar companies disposing of their waste in the e-waste facility is still low. To date, only five out of 45 solar companies in Energy Private Developers are working with Enviroserve Rwanda to dispose of their solar e-waste products. This raises more need for awareness on solar e-waste products disposal and management not only for private players in Energy but also to be extended to end-users as well. Projections indicate that solar waste could reach 1,400 tons by 2022 as off-grid energy is increasing.

Energy companies continue to face the immense challenge of informal recycling that uses practices that do not meet acceptable and sustainable standards. Energy Private Developers in partnership with Enviroserve and the local authorities continue to ring a bell for this awareness through local gatherings in marketplaces, District level dialogues, and Umuganda (this is a monthly cleaning event within Rwandan communities) day, community Radios talk shows.

On March 31<sup>st</sup>, 2022 Energy private Developers in partnership with Enviroserve carried out an e-waste collection and awareness day event as a leading role to ensure that energy associations work together to educate local communities, end-users to focus on social and environmental standards, and create awareness on risks of Off-grid components that are poorly waste managed.



Launch of E-mobility subsector

# ELECTRIC MOBILITY TO DRIVE AFRICAN GROWTH FORWARD

Last year in April 2021, The Government of Rwanda announced a prioritization of the transition to e-mobility for all vehicle types. This aimed to showcase the current and emerging technology options for e-mobility that are available in Rwanda. The event was an opportunity for participants to demonstrate the power and potential of sustainable transport to create jobs, grow the economy and improve health outcomes for all. The estimated cost of transitioning to e-mobility and the adoption of electric vehicles in Rwanda is 900 million USD. CO<sub>2</sub> emissions from road transport account for 13% of the total emissions in Rwanda and are expected to continue to rise. Although buses comprise only 15% of the total vehicles in Rwanda, they constitute approximately 40% of the total emissions from the transport sector.

As a result of these measures, Rwanda aims to have 20% of all buses transition to electricity by 2030, which will result in an estimated

reduction of 72,000 tCO<sub>2</sub>eq. As part of the technical assistance being provided to support, On March 29, 2022, Energy Private Developers as an umbrella for all players in the Energy sector in Rwanda, launched the 8<sup>th</sup> Subsector in E-mobility among the 7 that were existing.

This is tremendous growth for EPD as an association and this will lead both EPD and E-mobility players to form an organized Sub-sector that will have one strong voice to drive growth for this sector forward in Rwanda.



#### visit our website

# UPCOMING EVENTS

Delivering a Common Future: Connecting,

### UPCOMING EVENT

2022 SEforALL Forum 17 - 19 May

#### **REPORTS**

Off-grid solutions and CleanCooking Market Sales Report Innovating, Transforming 21 - 23 June 2022 | Kigali | Rwanda - <u>Common</u> Wealth business forum

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