



GLOBAL GATEWAY: ENERGISING UGANDA'S GREENER FUTURE.

A Collaborative Approach to Support
Uganda's Just and Clean Energy Transition.

October 2024



#GlobalGateway,
#Africa-EU Energy Partnership,
#Africa-EU Green Energy Initiative
#TEAMEUROPE



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Foreword by the EU Ambassador to Uganda.

It is with great pleasure that I present the Global Gateway, the strategy of the European Union to build resilient connections with the world and which has significant implications for Uganda's energy landscape. The Global Gateway embodies the EU's commitment to contribute to bridging the global infrastructure investment gap, which is projected to reach USD 15 trillion by 2040. This strategy supports smart, clean, and secure investments in both soft and hard infrastructure, upholding the highest environmental and social standards.

By investing in climate-resilient infrastructure, the Global Gateway will accelerate sustainable development, offering solid financial conditions and an ethical approach so that infrastructure projects do not create unsustainable debt, drive inclusive growth, and create quality jobs. Our ambitious goal is to mobilise EUR 300 billion by 2027 across the globe, with EUR 150 billion of investments as the target for Sub-Saharan Africa. EUR 3.4 billion of EU funding are dedicated to support the transition to renewable energy and enhance energy efficiency in Sub-Saharan Africa. Through these investments we aim to deploy at least 50 GW of additional renewable electricity and connect at least 100 million people to electricity across the continent by 2030.

Uganda and the EU have an aligned vision for a just and clean energy transition. As Uganda's largest development ally, we mobilise financing that seeks to leverage investments, both private and public, that prioritises green and climate transition, sustainable growth, and job creation. Team Europe is at the forefront of key initiatives, catalysing progress through strategic investments and collaborative efforts, with a focus on rural electrification, renewable energy, and regional energy connectivity.

This brochure presents the EU-Uganda partnership with regards to the energy sector, highlighting initiatives and flagship programmes of the Team Europe that seek to support a just and clean energy transition in line with Uganda's Vision 2040 and National Determined Contribution (NDC) as well as its ambitious Energy Transition Plan launched at the climate COP28 in Dubai in 2023. The energy sector in Uganda is a particular good example where our approach as Team Europe - pooling expertise and resources of EU Member States and EU institutions in a team effort - ensures to maximise the impact of our support. Our actions seek to improve electricity access, particularly in rural communities, and aim to mobilise investments in renewable energy generation projects and regional power interconnector programmes. These efforts aim to strengthen energy security in Uganda, facilitate the export of surplus renewable power, and help combat deforestation as a tangible contribution to delivering on Uganda's coming National Development Plan IV. This will further consolidate Uganda's role as a global frontrunner in green energy.

Through our collective efforts, the EU and Uganda are working jointly towards a lasting legacy of sustainable development and shared prosperity for Uganda and its people.

Jan Sadek

Ambassador of the European Union to the Republic of Uganda

Uganda's Energy Challenges and Sustainable Development.

Uganda requires sustainable energy solutions to support growth and meet climate commitments.



Access to Clean and Affordable Energy

- Limited electricity access and inadequate infrastructure
- Overreliance on firewood and charcoal
- Affordability issues and limited access to finance
- High poverty levels and income inequality



Climate Change and Deforestation

- Rising temperatures threaten rainfall patterns, agriculture, and water resources
- Heavy reliance on climate-dependent hydropower
- Alarming deforestation rates driven by demographics, agriculture, and urbanisation
- Urgent need to increase non-hydro renewable electricity capacity, particularly solar, wind, and geothermal



Urgency of a Just Energy Transition

- Essential for inclusivity and equity.
- Transitioning from unsustainable use of firewood and charcoal to clean energy can improve health and environment.
- Policies needed to support job creation and re-skilling.

Team Europe's Support for a Just and Clean Energy Transition in Uganda.

Team Europe is committed to supporting Uganda's journey towards universal access to energy and a low-carbon, resilient and sustainable energy system.

Our Focus Areas

- Expanding access to affordable and reliable energy
- Boosting renewable energy capacity
- Championing climate neutrality and resilience
- Encouraging sustainable energy practices and efficiency
- Investing in human capital for an inclusive energy transition
- Facilitating private sector engagement
- Advancing regional market integration

Our approach



Gateway to Funding

- Blending facilities combining EU grants with loans/equity to boost project funding and impact
- Derisking private investment through guarantees by the EFSD+
- Technical assistance facilities to enhance financial and technical maturity of projects
- Green bonds & climate finance to fund green energy initiatives
- Access to Horizon Europe's Research & Innovation funding
- Direct support for policy advances and reforms – e.g., support to establish and operationalise a Climate Finance Unit at Ministry of Finance, Planning and Economic Development



Gateway to Collaborative Development: Team Europe Approach

- Joint programming aligned with Uganda's priorities
- Pooling of resources, funds and expertise for greater impact
- Leveraging EU knowledge and fostering international cooperation
- SDG focus on energy, climate, and economic growth
- Sharing innovative solutions and best practices for sustainable development



Private Sector Opportunities

- Support bridging the long-term financing gap to stimulate the private sector's expansion with financial instruments ranging from debt to equity (www.electrifi.eu)
- Access to finance for green energy investments (www.get-invest.eu/)
- Facilitation of Public-Private Partnerships
- Technology Transfer initiatives
- Capacity building programmes such as e.g. skilling technicians in installation and maintenance around current and planned solar mini-grid locations

Team Europe Energy Initiatives, Cluster #1: Access to Energy.

Backing Uganda's target to meet universal access to electricity by 2030.

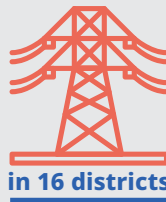
Team Europe has supported to bring electricity to 1.5 million individuals in Uganda since 2014, with at least 3 million people more expected to be reached by 2027. In this undertaking, a particular focus is put on vulnerable groups, productive use of energy and rural communities.

Boosting last-mile connectivity in peri-urban and rural Uganda: Last Mile Electrification, phase I

This initiative represents a significant stride toward enhancing last-mile connectivity and has been made possible through a collaborative financial effort, with a EUR 42.9M loan from the French Development Agency AFD, an EUR 8.3M grant from the EU, and a EUR 4.3M contribution from the Government of Uganda.

Successfully extended the electricity MV transmission network by

1,500km



in 16 districts

Successfully extended the LV distribution network by

1,300km



Subsidised last-mile connections to **40,000 households, public infrastructures (schools, health centres), and small and medium enterprises** in peri-urban and rural areas. By doing so, the project has been a catalyst for economic activities and has played a crucial role in diminishing the disparities between rural and urban areas.

We've not only upgraded infrastructure, but also equipped the Rural Electrification Department with the skills and expertise to sustain and grow rural electrification efforts, securing lasting benefits for Uganda's communities.



LED BY AFD

Building Momentum: Accelerating Progress in Last Mile Connectivity

We're now propelling Phase 2 forward, accelerating both technical and financial maturity to drive last mile connectivity in 34 districts and 2 main islands. A major milestone is on the horizon, with a contribution agreement set to be signed in December 2024 between AFD and the EU, securing an EUR 50M loan from AFD and an EUR 10M grant from the EU.

Pioneering rural electrification: decentralised access to electricity by promoting mini grids (Pro Mini Grids)

The Pro Mini Grids project has successfully demonstrated a sustainable electricity supply model for remote areas where grid extension is not feasible in the near future.



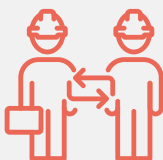
EUR 3.7 million

Funded by the EU



EUR 0.8 million

Funded by Germany



Led by the German Development Cooperation (GIZ) and the Ugandan Ministry of Energy and Mineral Development.



Successfully piloted solar-powered mini-grids



in 28 Ugandan villages, enhancing quality of life and local economies.

Demonstrated sustainable electricity supply through private ownership and Productive Use of Electricity (PUE) measures.



Clean and reliable energy to over

20,000 people

in host and refugee camps.



250 solar technicians

and establishment of a Renewable Energy Training Centre



300 SMEs

Supported and trained, unlocking energy demand, creating jobs and stimulating the economy.

Developed mini-grid technical standards and market regulatory instruments to encourage private investment and reduce costs, tapping on the large potential for scaling up the mini-grid market.

Gateway to scaling up success: GET Access Uganda

Building on the success of Pro Mini Grids, GET Access is scaling up the initiative to bring transformative rural electrification to even more communities.



EUR 24.5 M

Germany and European Union

EUR 5 M

Government of Uganda

EUR 5.5 M

private sectors

LED BY KFW



to gain access to solar-powered mini-grids, in remote rural and refugee areas, particularly in Northern Uganda and the shores of Lake Victoria, fostering social and economic development.

Approach

Subsidies for private developers to construct and maintain mini-grids, ensuring affordable energy access. Subsidies for PUE appliances.

Competitive bidding process for subsidies, ensuring cost-effectiveness and efficient use of funds. Results-Based Financing model to ensure accountability and tangible outcomes, such as extended grid kilometres and household connections.

Launch of the Project Prequalification Document in August 2024.

For further details: <https://www.getaccess-uganda.org/>

Beyond the Grid Fund for Africa: Off-grid energy access to electricity for millions

Funded by Denmark and Sweden and implemented by the Nordic Environment Finance Cooperation (NEFCO), Beyond the Grid Fund for Africa's Uganda portfolio aims at providing new and improved access to electricity for approx. 3 million Ugandans.



**EUR 18
million**

Grant for the project

Which is expected to leverage **EUR 50 - 60M** in private financing.

This project supports the use of off-grid solar electricity at household level as well as small company level. Main focus is on solar home systems that can power e.g. lighting, TV, smartphones, TV, and small refrigeration for households and small businesses. It also promotes productive use of off-grid solar energy such as cooling solutions or solar water pumps for small agribusinesses and farmers.



**3+ million
beneficiaries**

expected to be reached with this project

Approach

Currently more than **half a million energy service subscriptions** have been contracted of which **115,000** have been delivered.

The project is fundamentally working through private sector energy service providers and nurtures market development, including innovative financing solutions, such as pay-as-you-go models.

Team Europe Energy Initiatives, Cluster #2: Renewables.

Backing Uganda's ambition to diversify the energy mix and drive down the cost of electricity generation.

Team Europe has brought sustainable power to millions of households and businesses since 2014, with 164 MW of renewables commissioned, and over 350 MW in the pipeline.

Get Fit Uganda: Unlocking Private-Sector Driven Renewables

Project donors: Team Europe



EUR 15M
Supported by
Germany



EUR 20M
Supported by the
European Union

Project donors: Others



NOK 140M
Supported by
Government of Norway

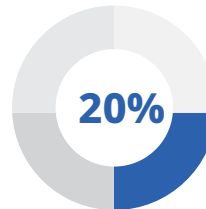


GBP 49.6M
Supported by the
United Kingdom

LED BY KFW

159.4 MW
a total installed
capacity

17
small- and medium-scale
renewable energy
projects



increased overall
electricity production
through diversifying
Uganda's energy mix

USD 450 million of investments for renewable energy generation projects, combining public and private funds.

Replicated successfully in Zambia and Mozambique, showcasing its scalable and impactful model.

Gateway to large scale renewable energy projects

Secured essential grant funding to achieve technical maturity for Uganda's priority investment projects, such as the **rehabilitation of the Nalubaale-Kiira hydropower system**, a Global Gateway flagship project. This rehabilitation is critical to prevent potential failures that could result in power outages and undermine the country's productive economy, and to control electricity tariffs.

A major milestone in achieving financial maturity for the rehabilitation of the Nalubaale-Kiira hydropower system is the EUR 30M grant funding committed by the EU in 2024 as part of a EUR 170M Team Europe package. This collaborative effort brings together the French Development Agency AFD (EUR 75M), the European Investment Bank EIB (EUR 65M), and the European Union (EUR 30M).

Team Europe Energy Initiatives, Cluster #3: Regional Market Integration.

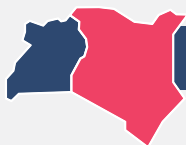
Backing Uganda's vision to become a major power hub in the region by 2040.

Powering the Continental Power System Masterplan

Backing game-changing projects like the Zambia-Tanzania-Kenya line, which will enable connecting the Eastern African Power Pool with the Southern African Power Pool.

This flagship project is a powerful example of interinstitutional cooperation, bringing together Team Europe - represented by France through AFD and the European Union - with like-minded partners such as the World Bank and the Commonwealth Development Corporation of the United Kingdom. Together, we are supporting regional integration and energy development for a brighter future.

Supporting the Eastern Africa Power Pool



260km at 400 kV and 220 kV



Facilitated energy trade through investments in cross-border infrastructure through projects such as the Uganda-Kenya interconnector (260km at 400 kV and 220 kV) and associated substations.

Funded by the EU and the AfDB alongside the Governments of Kenya and Uganda, this interconnector is designed to improve the electricity supply and reliability in both countries and fostering a competitive regional energy market.



Substantial contribution to the
USD 400 million
interconnection projects

under the Nile Equatorial Lakes Subsidiary Action Programme, NELSAP, a showcase of inter-institutional cooperation between Team Europe, represented by Germany through KfW, the Netherlands and the European Union, and other likeminded financial development partners, like the AfDB and JICA.

Laying foundations for future expansion with projects like the **Uganda-South Sudan Interconnector**, setting the stage for broader regional connectivity, enhancing long-term energy security. Backed with a highly concessional financial proposal by the AfDB and the EU, this project is designed to enhancing power sharing capabilities with Uganda and laying the groundwork for future connections to Kenya, Ethiopia, and Sudan.

Team Europe Energy Initiatives, **Cluster #4: Moving Beyond Unsustainable Firewood and Charcoal Production.**

Backing Uganda's target to meet universal access to cleaner cooking by 2030



Forest Partnership to lead the way to a just and clean energy transition



Backed by a substantial grant of

EUR 40 M

from the EU, the programme supports the priorities of the Forest Partnership, fostering a sustainable bio-economy and reducing reliance on charcoal and other unsustainable fuels



Promoting sustainable agricultural and forest production, scaling up forest restoration, and enhancing value addition in key growth opportunities, all while supporting a just energy transition



Ensuring over 100,000 Ugandans

who rely on forests for their livelihoods can transition to clean energy, improving their quality of life and resilience to environmental changes

Transitioning from traditional firewood and charcoal to sustainable energy sources, aiming to;

reduce CO2 emissions by

22%



increase Uganda's forest cover to

21%

Key initiatives include the Reforestation for Community Prosperity in Eastern Uganda, executed by the Italian Agency for Development Cooperation; Combating Illegal Timber Trafficking, executed by the UN Office on Drugs and Crime; Job Creation in Forestry and Timber Value Chain, led by FAO.

Empowering Clean Cooking: Strengthening Entrepreneurial Ecosystem (SEE) for Clean Cooking



Funded by the EU, the Danish Cooperation DANIDA and the Netherlands, and coordinated by the Netherlands Enterprise Agency RVO in partnership with Energising Development (ENDev)



Successfully introduced **higher tier cooking solutions to 10,980 people** across Uganda out of the **targeted 60,000 people**, enhancing quality of life, increasing incomes for local businesses and creating jobs.



Promoted sector coordination, policy reforms, and industry standards, creating an environment that encourages private investment, reduces costs, and protects the environment.



The project aims to install **8,000 small-scale household biodigesters**, with the goal of providing **clean energy access to 40,000 people**.

Developed sector coordination and enabling environment interventions, including policy review and development, joint sector association collaboration, and regulation and standards development to encourage private investment and reduce costs

For further details: <https://english.rvo.nl/see-cc>

Team Europe Energy Initiatives, #GlobalProgrammes: Bankable Projects and Bankable Frameworks.

GET.invest and GET.transform are European instruments that help to accelerate a successful global energy transition through bankable projects and bankable frameworks.

Team Europe One Stop Shop for Green Energy Investments



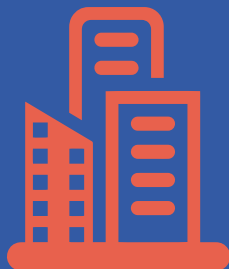
GET.invest supports clean energy projects and companies to become investment-ready and access financing. As the official Team Europe One Stop Shop, the programme provides information on available financing and support, tailored advice and linkage to financiers for the private sector, and support to financiers in building bankable pipelines.



Database with
200+
financing
instruments
for Uganda



30+ projects and companies in Uganda supported
10+ successfully introduced to financiers
5 brought to financial close with an expected investment volume of EUR 35 M (October 2024)



Spotlights With GET.invest support...

...**Destiny Corporation & Xylo Group** raised EUR 24.8 M to run a brewery on waste biomass instead of heavy fuel oil.

...**GOGO Electric** raised EUR 8.4 M for electric boda bodas, a sustainable, clean and cost-effective alternative to petrol-run taxis.

Get.invest is co-funded by



Strengthening regulatory capacities and frameworks



GET.transform supports public sector partners by strengthening institutional capacities and the policy, legal, regulatory and technical framework conditions necessary to scale-up clean energy investments.

In Uganda, GET.transform works in partnership with the **Ministry of Energy and Mineral Development** and the **Electricity Regulatory Authority** to pave the way for viable off-grid deployment and investment through robust regulation frameworks and market design. The jointly yielded results contribute to unlocking the required investment and reaching Uganda's national energy targets.



50

Energy Sector
Professionals trained



**Mini-Grid Regulatory
Framework**

ready for Implementation



**Distributed Generation
Regulatory Framework**

under development



330m

est. investment
requirement



>250,000

mini-grid connections

Get.transform is co-funded by



Team Europe supporting the energy sector in Uganda.



European Commission

In the past five years, the EU has mobilised for the EU-Uganda energy partnership about EUR 200 M in grants, with the potential to attract more than EUR 1 billion in investments. The EU in Uganda is supporting several initiatives related to the clusters in focus on this brochure. For more information, visit the EU Delegation website: https://www.eeas.europa.eu/delegations/uganda_en?s=127.



Since 1981, the EIB has channelled more than EUR 490 M into a diverse array of initiatives. Within the energy sector, the EIB's efforts encompass a variety of projects, such as the construction or rehabilitation of hydropower facilities, the establishment of regional interconnectors, the expansion of last-mile connectivity solutions, the advancement of off-grid solar energy systems, and collaborations with Uganda Development Bank aimed at enhancing energy efficiency through the DESIREE (Development of Energy Services for Increasing Energy Efficiency and Renewable Energy) programme.



Belgium

The bulk of Belgium's contribution to the development of the energy sector in Uganda comes from investments by the Belgian Investment Company for Developing countries (BIO). Two hydropower stations in Western and Northern Uganda have been granted a loan of EUR 13 M and EUR 20 M respectively, as well as EUR 11 M to a solar-powered telecom tower company. Besides the BIO investments, Belgium's development agency Enabel, together with partners, finances energy-saving measures in education institutions and health facilities. These measures include solar systems, biogas & briquette plants and wood saving kitchen stoves.



Denmark

Denmark supports the Beyond the Grid Fund for Africa's Uganda portfolio, aiming to provide new and improved access to electricity for approximately 3 million Ugandans. The project, implemented by NEFCO, has a total grant of EUR 18 M and is expected to leverage EUR 50 - 60 M in private financing. Denmark's contribution is approximately EUR 17 M. The project focuses on off-grid solar electricity at household and small company levels. Additionally, Denmark supports other energy initiatives, including a EUR 1.9 M project for climate change mitigation pumps and a EUR 1 M project for solar-driven irrigation pumps.



France

France through its French Development Agency (AFD) has been actively supporting Uganda's energy sector since 2006 through various projects across the electricity value chain (distribution, transmission and generation), including support for planning (financing of the Energy Transition Plan led by the International Energy Agency). AFD's loan portfolio in the energy sector exceeds EUR 140 M, including the construction of a high-voltage transmission line to improve the country's grid infrastructure and an electrification and densification project connecting over 200,000 people. AFD also financed technical assistance activities through grants, including a digital optimisation tool for the Nile river cascade benefiting UEGCL.



Germany

Germany supports Uganda's energy sector through KfW (German Development Bank) and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit). With EUR 165 M in German funding over the past decade, KfW has backed infrastructure development in generation, unlocking 159 MW capacity. This includes 3 high-voltage transmission lines, on- and off-grid electrification, and densification projects, connecting thousands of households and businesses. Through GIZ, EUR 58 M in funding from various parties has been used to implement energy sector interventions, focusing on market development, skills, policy, climate change, digitalisation, and refugee support.



Ireland

Ireland supports Uganda's energy sector through various initiatives. With EUR 2M in Irish funding, a World Bank Trust Fund has backed sustainable forest management to improve energy access in refugee-hosting areas. Ireland also funds EUR 1M to the Global Alliance for Green and Gender Action network, which supports partners promoting good energy governance and renewable energy access for women and youth in northern Uganda. Additionally, with EUR 1M in funding to the AVSI Foundation, Ireland supports vocational programmes in Karamoja including training in solar technologies, and will allocate EUR 1.5M to the UNCDF LoCAL mechanism to enhance low-cost clean energy access.



The Netherlands

The Netherlands through FMO Entrepreneurial Development Bank (FMO) and Invest International has been actively supporting Uganda's renewable energy sector through various projects. The investments of FMO are mainly in the renewable energy sector, in mini-hydropower and solar energy. They're also looking at possibilities for investments within electric transport (e-mobility). FMO started with their Access to Energy Fund in 2007 and since then invested in private renewable energy companies.



Sweden

In 2019, Sweden and Uganda signed a Memorandum of Understanding for cooperation in the energy sector, leading to achievements such as the upgrading the Scada system at the UETCL and strengthening human capital within Uganda's energy utilities. Sweden also supports the EUR 7 M Inclusive Markets for Energy Efficiency in Uganda (IMEU) project, aiming to establish sustainable and inclusive markets for energy-efficient products and services. Additionally, Sweden launched the Beyond the Grid Fund for Africa featured in this brochure, allocating EUR 11.5 M to incentivise companies to close the 'viability gap' for clean energy services in areas that would otherwise not represent viable markets.



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