

ENGIE ENERGY ACCESS

# PERFORMANCE AND IMPACT REVIEW



2023

The Engie logo consists of a white curved line above the word "engie" in a lowercase, sans-serif font.



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# 01 INTRODUCTION







**Gillian-Alexandre Huart,**  
Chief Executive Officer,  
ENGIE Energy Access

## MESSAGE FROM THE CEO

**The imperative of global warming and climate change compels us to reimagine the world's energy landscape. Climate-smart investments are crucial in addressing the pressing environmental, geo-political, and economic challenges confronting our planet and its people, both now and in the future.**

Realizing our shared vision for dignity, peace, and prosperity worldwide, as outlined in the United Nations' Sustainable Development Goals (SDGs), demands concerted efforts and unwavering commitments from civil society, the private sector, and governments. These stakeholders speaking with a common voice can translate this vision into tangible reality.

Achieving universal access to energy necessitates a multifaceted approach. We must embrace a combination of grid expansion, Mini-Grids, and Solar Home Systems. Recognizing that governments cannot be experts in every technology and dedicate all their means to energy matters only while the energy private sector can focus on its core business, contributes with its cross-project and cutting edge technology expertise, and deploy global best practices to the benefit of this universal objective.

Private companies play a pivotal role in complementing national energy strategies. They enlarge access to essential components to providing energy to the entire populations. These include access to capital (including debt, equity, and grants), global operational excellence, project finance, and infrastructure expertise. Furthermore, driven by self-sustainability, they seek continuous improvements by applying best practices from successful projects and implementing innovative and efficient business model to unlock new success factors to their sector of activity. Their agility to adapt to new practices and new technologies is invaluable.

To triple the rate of energy access, we must address key macro challenges, including diversifying funding sources, mitigating risks related to customer incomes, currency fluctuations, inflation, political instability, security concerns, and climate-related issues that the private sector alone cannot cover. The need for collaboration does not start once projects are allocated but is needed at the inception of electrification program design and requires an open mind for a multi-technology approach.

Universal access hinges on cultivating a conducive business environment that fosters collaboration in deploying a diverse range of technologies, ensuring optimal risk allocation among all stakeholders.

At ENGIE Energy Access (EEA), we take immense pride in embodying this commitment in every action we take. Our dedicated team of over 1,800 individuals works tirelessly to make a positive impact on lives and contribute actively





to a more equitable and sustainable world. We firmly believe that the 580 million people in Sub-Saharan Africa living without electricity deserve access to affordable, reliable and sustainable energy solutions. We are convinced that off-grid solar technology is part of the solution in achieving Sustainable Development Goal 7 (SDG7).

As a result, we have positively impacted the lives of 11 million people in nine countries. In less than three years, we have emerged as the leading company in mini-grid and off-grid Pay-As-You-Go (PAYGo) solar energy solutions across Africa, with the goal of reaching 20 million people by 2025.

The purpose of this report is to demonstrate our stakeholders the robustness and resilience of our business model, its financial stability, and the positive impact ENGIE Energy Access generates in Africa. Our efforts address energy poverty, create jobs, enhance education, fight emissions or greenhouse gas, reduce gender inequality, and foster community development.

Our operations are grounded in a long-term perspective that contributes to unlocking a broader and prosperous future for the regions we serve. We have expanded electricity access to previously underserved areas, improving agriculture, food, education, the economy, and health. For instance, we have integrated shared infrastructures, such as electricity-generating units, with complementary business models, like combining agriculture with the manufacture of equipment. This approach has resulted in reduced overall mini-grid costs while creating additional revenue streams.

We are committed to offering an exceptional customer experience while providing electricity at the lowest possible cost. Our Business-to-Consumer segment offers Solar Home System

kits tailored to customers' energy needs and budgets. PAYGo technology enables customers to make small installments via mobile money, fostering financial inclusion, especially in low income areas. By combining Mini-Grids and Solar Home Systems, we optimize network deployment. Solar Home Systems at the outskirts of villages reduce overall costs. Having both technologies in-house allows us to optimize our use of capital and invest in innovation, such as creating solar-powered water pumps for irrigation, electrical mosquito repeller devices to fight malaria or refrigeration for businesses like bars, restaurants, or healthcare facilities.

Our next phase of development leverages our expertise in product development, distribution, customer finance, and digital solutions. We have standardized best practices to expand into new countries and introduce additional products and services, such as clean cooking solutions, digital tools, and agricultural solutions that will complement our existing offerings.

The room to fulfill our mission is immense, and our senior leadership team is resolutely committed to achieving success, recognizing the positive societal impact our work will bring. I firmly believe that Africa urgently needs an energy revolution. As #OneTEEA, we stand at the forefront of this growing wave, advocating for a more sustainable world for all. We are catalysts for change. We illuminate Africa's future.

This report highlights the long-term sustainability of our business in Sub-Saharan Africa. If you have any recommendations or opportunities for a sustainable partnership, please don't hesitate to reach out to me at the following email address: [gillian-alexandre.eea@engie.com](mailto:gillian-alexandre.eea@engie.com). I invite you to join us in our mission.



# OUR GUIDING PRINCIPLES

## OUR MISSION

Deliver life-changing, affordable, reliable, and sustainable energy solutions with exceptional customer experience.

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## OUR AMBITION

Be a leading decentralized energy company that impacts 20 million lives by 2025.

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## OUR PURPOSE

Improve quality of life and economic potential of grid-deficient communities.

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# OUR VALUES

## ONE TEAM

We support each other and celebrate diversity.

---

## BOLD

We dare to innovate and make it happen.

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## CUSTOMER CENTRIC

We pursue an Exceptional Customer Experience

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## PERFORMANCE DRIVEN

We are empowered to set ambitious targets and deliver results.

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## INTEGRITY

We act with transparency and honesty.

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# OUR SUSTAINABILITY APPROACH AND PRIORITIES

We operate with a long-term perspective, considering the socio-economic and environmental implications of our operations. Consequently, we integrated sustainability across all our business functions and geographies, complying with ENGIE's [Group CSR Policy](#) and in line with our overall purpose to accelerate the global energy transition.

## Our 4 Sustainability Priorities are

### INCLUSIVITY

Ensuring equitable access to clean and reliable energy services for all, to reduce energy poverty and promote social inclusion.

### ENVIRONMENTAL RESPONSIBILITY

Implementing eco-friendly energy solutions that minimize carbon emissions, reduce environmental impact, and promote the use of renewable energy sources to combat climate change.

### ECONOMIC VIABILITY AND JOB CREATION

Supporting local economies by fostering entrepreneurship, creating job opportunities, and building capacity within communities through sustainable energy projects, contributing to economic growth and development.

### COMMUNITY EMPOWERMENT AND SOCIAL IMPACT

Engaging with and empowering local communities by involving them in decision-making processes, providing education and training, and ensuring that energy solutions align with their specific needs and aspirations.

## Our Impact in Numbers



**10M+**  
People Impacted



**52%**  
women managers



**95%**  
employees in Africa



**100,000**  
tons of CO2 emissions  
for kits sold since 2021



**5k+**  
sales agents



**45 MW**  
of solar capacity  
installed



# ALIGNMENT WITH SUSTAINABLE DEVELOPMENT GOALS

Our business model actively contributes to achieving the UN Sustainable Development Goals of the United Nations Agenda 2030. As ENGIE Energy Access we are translating our CSR commitment into tangible actions in direct response to the challenges raised by our stakeholders – aligning seamlessly with our strategy of sustainable growth, which is dedicated to accelerating energy access for off-grid communities.



**1** Income generation, poverty alleviation

**5** Women employment and empowerment

**8** Kickstarting businesses and improved productivity

**11** Small business and community development

**3** Improved water access and less fire risk

**6** Adequate access to sanitation and hygiene

**9** Better infrastructure incl street lighting

**13** Electricity generation without environmental cost

**4** Reliable lighting for study

**7** Reliable, affordable and clean energy

**10** Sustaining income growth and reducing income inequalities

**17** Domestic resource mobilization



# 02 OUR BUSINESS MODEL









# OVERVIEW OF THE ENERGY ACCESS MARKET

Recent advancements have fallen short of the target to achieve universal energy access (SDG 7) by 2030. Globally, the percentage of the world's population with access to electricity increased by an average of 0.7% annually between 2010 and 2021, rising from 84 to 91%.

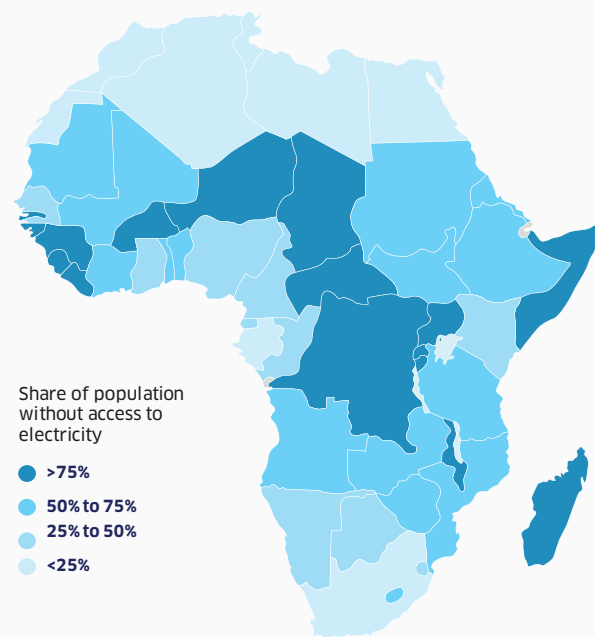
To close this gap, the annual growth rate in access needs to nearly double the current pace. Without additional efforts and measures, an estimated 660 million people, primarily in Sub-Saharan Africa, would remain without access to electricity by 2030. Meanwhile, the off-grid solar industry continues to expand, with an additional 70 million people gaining electricity access through off-grid solar power since 2019. Presently, 490 million individuals are benefiting from energy access through off-grid solar solutions, marking an 18% increase since 2019.

The decrease of solar & battery costs, the raise of Internet-of-Things, and mobile money have pushed the development of dedicated off-grid solar solutions in developing countries. Innovative financing solutions have emerged to match local populations' requirements through Pay-As-You-Go (PAYGo) models. New Solar Home System (SHS) products and services are emerging, including Software-as-a-Service, which will become competitive advantages. SHS's commercial viability has been proved and their growth potential remain substantial.

Mini-Grids are competing with power grid extensions. Their market is dependent on local regulations and their commercial viability without subsidies is still challenging. Nevertheless, the market potential is very important, and they are expected to take up to 45% of the electrification market.

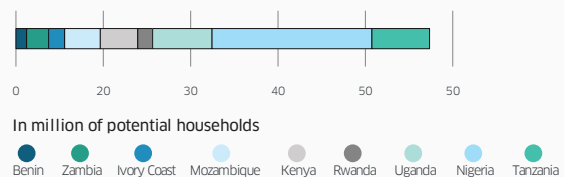
**Solar Home Systems (SHS) and Mini-Grids emerge as the most cost-effective technologies to address energy access problematics.**

## Sub-Saharan Africa concentrates the lowest rate of electrification on the planet

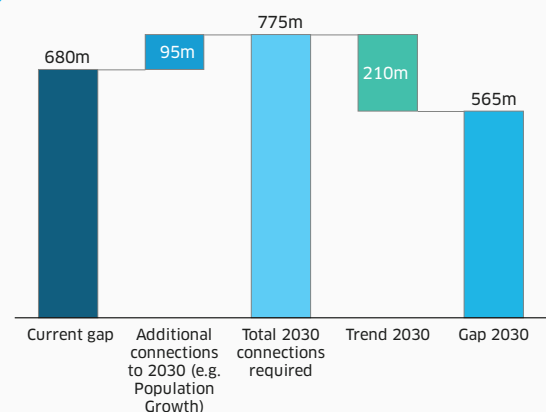


## Addressable market in EEA's 9 countries of operations

(47 millions households / 235 millions people)



## At current rates of electrification, a gap of over 550m people is still estimated to remain by 2030

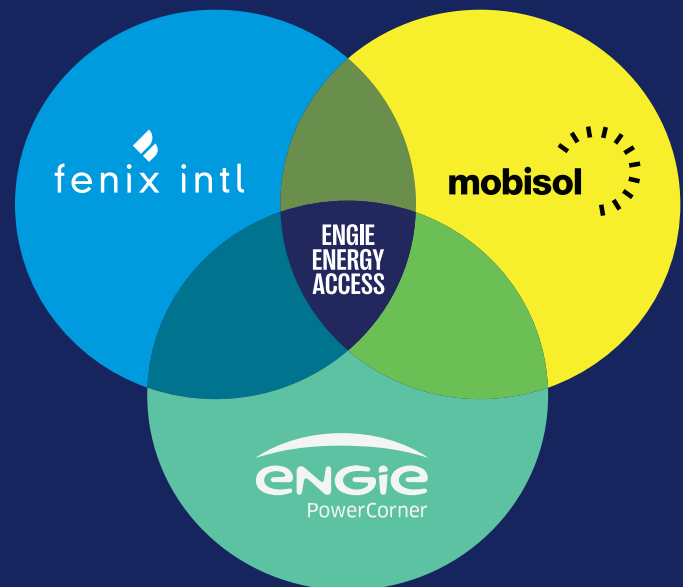


# OUR ROOTS

**ENGIE Energy Access (EEA) was created in 2020 through the successful integration of ENGIE Mobisol, Fenix International and ENGIE PowerCorner into a single entity.**

**The integration has positioned our company as a major player in the sector, resulting in significant advantages:**

- One EEA Global Team
- Geographic synergies
- Revamped and harmonized product portfolio
- Harmonized software platform and applications
- Implementation of key policies and processes
- Leveraging combined hardware and software R&D capabilities
- Integrated supply chain and stronger leverage on suppliers
- Mutualization and reduction of fixed costs





# We are a vertically integrated and mini-grid company which enables our customers to drive rural ele





# ed solar home system ich serves wide-ranging ectrification.





# A MARKET LEADER IN ENERGY ACCESS

ENGIE Energy Access is among the market leaders in energy access in Africa given our large geographical coverage and customer base.

Our strength relies on cutting-edge technology and top-quality standards, providing the widest range of products and solutions in the off-grid industry. In order to improve the supply chain, enhance the customer experience, and optimize costs, we operate within a vertically integrated value chain. We currently focus on rural off-grid & microbusinesses and are looking at opportunities in weak grid, B2B and B2G.

## MARKET LEADER

Acquisition and integration of complementary businesses has resulted in a leading position.

### Geographies



### Countries of Operation

Benin  
Ivory Coast  
Kenya  
Mozambique  
Nigeria  
Rwanda  
Tanzania  
Uganda  
Zambia

### Other Global

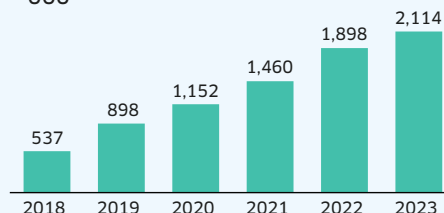
Belgium  
China  
France  
Germany

### Outstanding distribution network composed of >400 shops

- ✓ Self-operated shops
- ✓ Strong local sales networks through partnerships with Telecom outlets (MTN, Vodafone, Canal+)
- ✓ 5k+ sales agents

**EEA has sold to over  
2m customers**

Total cumulative customers  
'000



**~10k**  
Mini-Grids connections

**200+**  
Mini-Grids awarded



# ENGIE ENERGY ACCESS AT A GLANCE

A vertically-integrated solar-home system and mini grid company, which serves wide-ranging customers to drive rural electrification.

## Products



Comprehensive offering across SHS & MG, supported by a range of appliances

### ENERGY PRODUCTS



**Solar Home Systems**

10-200 W



**Solar Business Systems**

1-8 kW



**Mini Grids**

50-600 kW

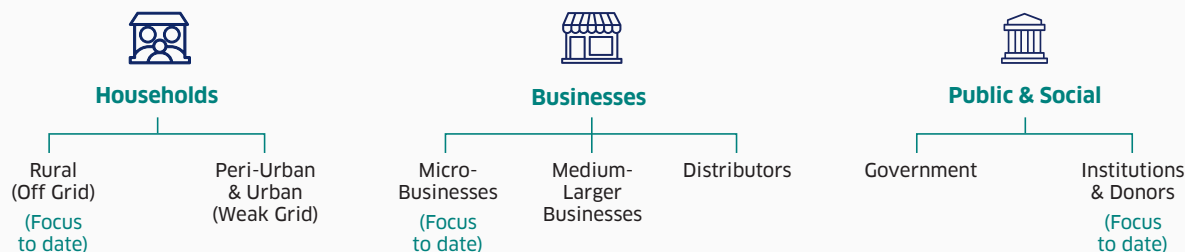
### APPLIANCES



## Customers & Channels



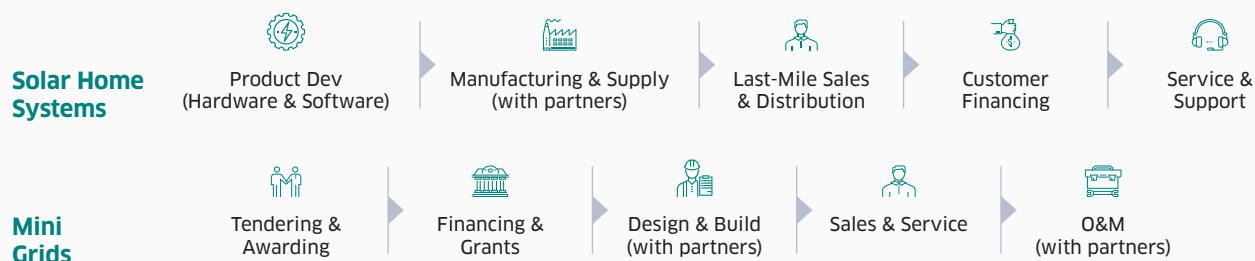
A focus on rural off-grid & micro-businesses to date, opportunities in weak grid, B2B an B2G



## Value Chain



Vertically integrated to enhance supply chain, CX, cost optimization, and rapid innovation



## New corporate and customer brand, benefitting from ENGIE's reputation and strong CX



**Strong client satisfaction** thanks to high quality products and outstanding customer service (9 call centres, ~300 call centre agents, 65+ languages)

Culture of continuous customer experience improvement: **Customer Satisfaction Score above 90%**

**High impact marketing** to multiple types: Below-the-line line campaigns in Africa and corporate campaigns globally



# FOCUS ON BUSINESS

## ACHIEVEMENTS AND HIGHLIGHTS

### FUNDING

- ✓ A project finance agreement with **Cross Boundary Energy Access** Nigeria (CBEA) to build a \$60 million portfolio of mini-grids that will connect over 150,000 people to electricity in Nigeria.
- ✓ An agreement of approx. 2.6M EUR with **Beyond the Grid Fund for Africa** (BGFA), enabling the establishment of more than 167,000 high-quality energy service connections in Uganda.
- ✓ A transaction signed with **Cygnum Capital** (formerly Lion's Head Group) which provides up to USD 7.5 million of debt to MySol Grid Zambia to construct 60 mini-grids which will connect over 40,000 people to electricity in Zambia.
- ✓ MySol Grid Benin signed the concession agreement with the **Beninese Agency for Rural Electrification and Energy Management** (ABERME) to deploy 20 mini-grids in north and central Benin connecting almost 6,000 subscribers and benefitting from 5 MUSD of subsidy from OCEF.
- ✓ 10M EUR funding from the **European Investment Bank** to support the deployment of 107,000 Solar Home Systems in Benin.

### ALTERNATIVE FINANCING

- ✓ Successful launch of **Crowdfund for Solar**, a platform to harness the potential of decentralized finance (DeFi) to bring solar installations to energy-deficient communities. The platform will enable access to low-cost finance for the deployment of solar home systems (SHS)
- ✓ Pioneer agreement with **CarbonClear**, a Scandinavian start-up to accelerate the use of climate finance by the off-grid sector in sub-Saharan Africa through issuing and selling data-driven and impactful carbon credits.

### MINIGRIDS

- ✓ Inauguration of the 2.0 hybrid solar 600 kWp mini-grid, with integrated productive hub and e-mobility, on Lolwe Island, Uganda. The Lolwe project is a truly scalable model – matching green infrastructure and ICT innovation and is a significant milestone and benchmark for the energy access space.
- ✓ On-going **mini-grid construction** in Benin and Nigeria
  - 20 MySol grids in north and central Benin connecting almost 6,000 subscribers, following the successful signing of a concession agreement with the Beninese Agency for Rural Electrification and Energy Management (ABERME)
  - 15 mini-grids in Nigeria, connecting 5,600 customers.

### PRODUCT

- ✓ Roll-out of the new unified Solar-Home-System brand **MySol** in all our 9 markets, providing “Best Solar, Best Life” to our customers. **MySol Grid** is the new brand name for ENGIE PowerCorner, our mini-grid solution. This rebrand illustrates our integrated offer, covering the full scale of needs of our customers.
- ✓ Introduction of **new innovative products** into the market to better serve our customer base:
  - Ultra-affordable product “Neo” for lower income segments
  - SBS
  - MySol Teevo
  - Smart phones
  - Solar powered mosquito trap (PreMal)







# SIGNIFICANT GROWTH POTENTIAL

**The energy market in Sub-Saharan Africa boasts substantial potential, driven by a population of 1.2 billion people, half of whom lack access to reliable energy sources.**

The off-grid sector is experiencing remarkable growth, witnessing a consistent 10% annual increase in sales of Solar Home Systems (SHS) since 2017 within the region. Furthermore, the mini-grid sector is gaining momentum, thanks to increased financial support and subsidies in recent years. Projections indicate that there will be a substantial investment of USD 220 bn in the sector by 2030.

**We see different growth opportunities to take our company to the next stage of its journey and unlock its full potential:**

**Continue to penetrate our existing 9 markets of operation.**

There is still significant **untapped market** potential in EEA's 9 existing markets (**over 230m** people off-grid), which we can continue to develop through go-to-market improvements and last-mile efficiencies.

**Expand geographically into new markets through B2C and B2B/wholesale.**

The market potential in other markets across Africa (**>470m people** off-grid) is considerable. We will be leveraging our **proven business** in the 9 home countries to continue exploring promising markets.

**Optimize and scale business and community solutions.**

Capturing the potential from having the end-to-end product range, through scaling **mini grid** operations (**200+ awarded**) and scaling the **1-8 kW** range to serve larger households, businesses and public infrastructure.

**Consolidation and expansion of appliances to generate revenue from existing base.**

We will leverage core capabilities of CX, distribution and brand, to serve more needs of our existing 2 million customers, with potential across **clean cooking, consumer technology** and **agriculture**.





## SCALING INNOVATION

Fostering innovation within Sub-Saharan Africa's off-grid energy sector is instrumental in driving technological advancements that will not only benefit the sector but also accelerate the achievement of sustainable energy access for all. At EEA, innovation is one of our core values: We focus on identifying unique challenges that demand creative solutions that can provide us with a competitive edge.

Innovation stands as a primary Key Performance Indicator (KPI) for our various departments, with each expected to deliver annual results. In our pursuit of innovation, we organize an annual competition open to all EEA employees, resulting in the submission of over 100 distinct projects in both 2022 and 2023. This initiative serves as a platform for discovering, evaluating, prioritizing, and resourcing innovative projects, ensuring their implementation throughout the organization for maximum impact.

To strengthen our business, we are currently establishing an Innovation Steering Committee, which will oversee and structure our innovation efforts.



## FINANCIALLY SUSTAINABLE

We are reaching a critical volume level thanks to the successive acquisition of Fenix and Mobisol which has resulted in cost efficiencies and synergies to cover fixed costs ahead of the next growth phase.

EEA revenues grew at 28.4% CAGR (Compound Annual Growth Rate), between 2020 and 2022, mainly attributed to the SHS segment, underpinned by significant growth in the customer base, notably in Mozambique, Nigeria, Tanzania, Benin and Rwanda.

SHS segment revenue contributes to over 90% of total revenue. As scale is achieved within the MG segment in existing and new markets, MG segment revenue contribution is expected to gradually increase to 16% of total revenue by 2040, highlighting the continued importance of the SHS segment to EEA over the medium and long term.

A number of structural changes have been implemented since June 2020 to accelerate growth in the coming years

- **Cross Selling and Synergies:** Harmonization and integration of operating model, product and tools.
- **Pricing Changes:** Healthy unit economics ensuring positive contribution on every product sold.
- **Culture Integration:** Successful integration of three companies into a unified team, culture, mission and brand.
- **Country Turnaround:** Significant improvement in challenging countries thanks to cross-fertilization of best practices and improved operations. We are now in a profitable and sustainable financial position, driven by cost savings, scale and synergies. The overall business turned EBITDA positive in 2022 and is expected to generate robust operating cash flows by 2024.





## 03 CORPORATE GOVERNANCE





# CORPORATE GOVERNANCE

**Our corporate governance model is built upon a foundation of customer-centricity, focusing on delivering reliable and affordable energy solutions that meet the diverse needs of the local population.**

It prioritizes long-term profitability by balancing short-term financial goals with sustainable business practices. The corporate framework emphasizes ethical and transparent operations to build trust with customers, regulators, and investors.

It hinges on a commitment to social and environmental responsibility and allows for a culture of transparency and information accessibility that supports sustainable growth.

## **The corporate governance and risk management structure is dedicated at:**

- Determining EEA's strategy and objectives;
- Determining and creating EEA's culture value and ethics;
- Managing EEA's financial health;
- Identifying and managing key risk and issues;
- Establishing roles and responsibilities and suitable governance structures; and
- Driving accountability with responsibilities performance and standards.

We have established several committees, including **Global Pricing Committee, Remuneration Committee, Ordering Committee, Investment Committee (mini-grids), S&OP Technology Change Advisory Board (CAB), Ethics Committee, Global Credit Risk Committee.**

Our ethics and legal, health and safety and internal controls functions have been centralized.

Annually, EEA's risk matrix is updated with an emphasis on ranking, recording, quantifying, and monitoring the most significant risks.

We have implemented online training in critical risk areas for all employees, as well as focused training aimed at continuous development of systems and controls, yearly internal control reviews in key high-risk areas, and an emphasis on Environment, Social, and Governance (ESG) reporting.



## Major work carried out 2022 – 2023

**From a dual to a multi-layered organization:** Creation of a regional structure for our countries of operation to help optimize synergies and quicker implementation of best practices.

Restructuring of the global Operations and R&D and Digital departments into **Technology and Supply Chain**: optimization of the connection between hardware and software and development in general within the new Technology department ; the Supply Chain department will focus on end-to-end supply chain activities.

**Creation of a Strategy and Policy department:** proposes our long-term strategic planning, large scale, enterprise-wide strategic partnerships, market expansion and the development and implementation of ENGIE Energy Access's policy strategy.



10 CEO webinars addressing all employees.



3 yearly Strategic deep-dive session for the Senior Leadership Team (SLT).



Yearly dedicated off-site gathering per department.

# OUR SENIOR LEADERSHIP TEAM



**CEO**  
Gillian-Alexandre  
Huart (FR|BE)

ENGIE Energy Access operates with a multi-layered organizational structure, consisting of autonomous country teams that receive support from a Global Team. The Global Team oversees all activities, ensures business growth and efficient operational management, and offers shared support to the individual countries.

To enhance synergies and facilitate implementation of best practices, we have divided our operational countries into three regions: Southern Africa, East Africa, and West Africa, each led by a Regional Director. This regional approach optimizes our operations, while still ensuring the necessary flexibility for local adaptation.



**STRATEGIC MARKETING**  
Cassandra Mhone (ZM)



**PEOPLE & CULTURE**  
Gabriella Fragiocomo  
(IT)



**TECHNOLOGY**  
René Koné (GB|FR|BF)



**CUSTOMER FINANCE**  
Andreas Thiele (DE)



**FINANCE & LEGAL**  
Steven Fleurus (BE)



**SUPPLY CHAIN**  
Barry Yu (NL)



**STRATEGY & POLICY**  
Patrick Westman (AU)



**WEST AFRICA  
NIGERIA**  
Mangiza Phiri (ZM)



**EAST AFRICA  
UGANDA**  
Philippe Robert (FR)



**BENIN**  
Christelle Agossou  
(BJ|FR)



**COTE D'IVOIRE**  
Sylvie Kanimba (RW)



**KENYA**  
Fredrick Nobala (KE)



**MOZAMBIQUE**  
Junior Kwebiha (UG)



**RWANDA**  
Patrick Adjwanou (BJ)



**TANZANIA**  
Godfrey Mugambi (KE)



**ZAMBIA**  
Helen Zulu (ZM)



# OUR APPROACH ON ETHICS AND COMPLIANCE

We adhere to a clearly defined set of principles that guide our corporate conduct, all of which are reinforced by a strong ethical culture designed to ensure a thorough compliance framework.

In accordance with ENGIE's ethical guidelines and our organization's commitment to "acting with honesty and fostering a culture of integrity," we are rolling out policies and protocols focused on compliance and ethical matters, including measures to prevent fraud, corruption, and undue influence. This effort is managed by a dedicated Ethics and Compliance team, charged with overseeing the essential compliance checks and ethical assessments.

## INTEGRITY AND COMPLIANCE FRAMEWORK / POLICIES

### ANTI-BRIBERY AND ANTI-CORRUPTION

It provides guidance on how to prevent, detect and address bribery and corruption efficiently.

### WHISTLEBLOWING

It includes a local grievance mechanism in place that encourages reporting of any incidents openly or via anonymous channels, addressing all unethical actions promptly.

### GIFTS AND HOSPITALITY

It outlines the general principles and the framework in respect gifts and hospitality, technical and study travel, relations with public authorities and invitations to events with the view to prevent any type of corruption, conflict of interests or influence peddling.

### HARASSMENT PREVENTION

It ensures that none of our employees is subjected to any form of harassment. It focuses on preventing harassment in the workplace.

### CONFLICT-OF-INTEREST

It guides employees to recognize and manage any potential or actual conflict of interest that they may experience, including practical examples of specific situations and directions on how to manage the process and trace it.

### HUMAN RIGHTS

Violations or incidents are proactively identified and addressed. Our suppliers and contractors can also raise concerns through ENGIE whistleblowing systems or other communication channels.

## Progress in 2022 - 2023

- Ethics clauses have been incorporated into all contractual agreements.
- In all operational countries, local ethics liaison officers have been appointed.
- Ethics has become an integral component of HR policies, such as mandatory training for HR personnel and pre-employment due diligence checks on candidates.
- We have initiated the deployment of a dedicated EEA ethics training program, which includes regular training for local teams and monitoring of mandatory Group training attendance.
- A tailored training program is being developed for employees most exposed to the risk of fraud and corruption.
- The implementation of a gift and hospitality policy, along with employee registration on an online dedicated gift and hospitality platform, is underway.
- A conflict-of-interest prevention policy has been established, facilitating early identification and declaration.
- Our procurement teams are in the process of implementing a due diligence approach for suppliers and subcontractors.
- We have launched anti-fraud initiatives at the local level, including enhanced training for field sales staff and increased customer awareness efforts.



# 04 PEOPLE & CULTURE











# #ONETEAM

**In 2023, we have committed to building a vibrant and inclusive People Culture. Our focus on four core pillars – Mission, Values, Ways of Working, and Leadership – has been instrumental in shaping our organizational culture. We believe that by strengthening these pillars, we enhance our Employee Value Proposition through Capacity, Culture, and Capability.**

Over the past two years, we've achieved significant milestones. Our Ways of Working have enabled us to innovate, adapt, and grow swiftly in response to market changes, exemplifying our commitment to our continuing journey towards

Doing Things First and Doing Things Fast. Furthermore, our leadership has been pivotal in fostering collaboration and empowerment, encapsulating the essence of Doing Things Together.

Looking ahead to 2024, we have identified key areas for improvement. First and foremost, we aim to respond even more efficiently and effectively to market dynamics, ensuring that we remain agile and competitive. Additionally, we recognize the need to enhance communication within our organization, particularly regarding talent development, compensation, and benefits, reinforcing our commitment to Doing Things Right. Lastly, we are dedicated to working with our teams to promote and sustain a better work/life balance across our markets, valuing the well-being of our employees as we move forward.

## KEY FIGURES

**5,235**  
Sales Agents

**44**  
Nationalities

**100+**  
Languages

**13**  
Countries

**1,808**  
FTE

**41%**  
Women



# TALENT MANAGEMENT AND EMPLOYEE ENGAGEMENT

**Our commitment to Talent Management and Employee Engagement is demonstrated through our comprehensive training programs at various organizational levels. These initiatives empower our workforce, fostering expertise and motivation. By investing in our team's growth, we ensure a skilled and engaged workforce.**



The “**Next Generation training**” initiative is set to nurture talent within our organization, specifically targeting employees at the N-3 level. This strategic effort is designed to boost our talent pipeline and establish a robust succession plan for the Senior Leadership Team. The first “Next Generation Cohort”, conducted from June 2022 to May 2023, saw 23 employees successfully graduate, while the second cohort, scheduled from July 2023 to June 2024, has 29 participants currently enrolled.

Our “**Senior Leadership Training**” program places a strong emphasis on fostering “Ways of Working” and “Ways of Leading,” with the ultimate goal of positively influencing the overall employee experience at ENGIE Energy Access.

In parallel, our Senior Leadership Team is actively engaged in a “**Cultural Transformation program**” to set a powerful example and demonstrate their commitment to cultural change.

**The MySol Academy** is ENGIE Energy Access's own internal learning initiative that brings team leaders from all customer facing departments together for an intense, full week learning experience that walks them through EEA's business model as well as key functions from all our departments and contributions to the overall business targets and EEA's mission.

A pilot was launched in 2021, with a significant scale-up in 2022-23 and a continuously growing coordination team working to respond to the increasing training demand.

As of September 2023, we have trained & certified 173 participants from customer facing teams as well as 67 facilitators from all our departments, across 5 countries.







## NAVIGATING WORK AND LIFE BALANCE

At ENGIE Energy Access, we believe in achieving our objectives while taking care of a healthy work-life balance. Our commitment is to continuously improve this balance through open communication between management and employees.

We conduct biannual employee engagement surveys covering the following themes Sustainable Engagement, Meaningful Work, Leadership, Positive Work Environment, and Development and Growth - all of which address valuable feedback from employees, particularly in relation to work-life balance.

Our eNPS scores consistently fall within the range of 20 to 30, reflecting favorably when compared to industry benchmarks. We are set to further elevate our overall score, reaffirming our dedication to continuously enhance the employee experience and strengthen our organization.



**ENGIE Energy Access' eNPS score ranged between 20-29 in 2023**

## Celebrating Diversity and Fostering Inclusion

To get there we have set up a targeted recruitment, mentorship programs, leadership development, and diversity and inclusion training. Our commitment to this goal is based on the belief that diversity drives innovation, creativity, and strength within our organization.

Diversity and inclusion are integral to our HR approach. By embracing diverse talents and perspectives, we cultivate a workforce that better understands and serves our diverse customer base, while promoting social equity across the region.

We are well on the road to achieving a 40:60 parity gender balance in our workforce.









# OUR DISTINCT WORKING CULTURE

In line with the ENGIE Group's direction, our ways of working, leading and learning are all components of our distinct working culture.

## OUR WAYS OF WORKING

The ways of working comprise of 5 main principles, namely:

- Focus on the business, in terms of concentration on what really creates value for the business.
- Collaborate beyond the current hierarchical structures.
- Commit to delivering in terms of being accountable to your targets.
- Promote engagement.
- Prioritize actions in terms of developing a concrete framework of actions.

### FOCUS ON BUSINESS

concentrate on what really creates value for the business and for the group.

### PRIORITIZE

Set a clear framework.

### COLLABORATE

Make the best of our matrix organization beyond hierarchical responsibility.

### COMMIT TO DELIVER

Be accountable with a focus on delivery.

### ENGAGE

Onboard our teams.





# OUR WAYS OF LEADING

## 5 key principles to define our leadership culture.

### CARE

Fostering a culture of mutual interest, respect and care within teams, strengthening well-being in the workplace and practicing a constructive feedback & development culture.

### SAFETY & INTEGRITY

Performing high standards of health & safety of people, securing assets, protecting our (cyber) security, integrity and reputation and embedding a zero-tolerance culture, to guarantee our "license to operate".

### TRUST

Doing what we say and saying what we do, leading and inspiring by example towards teams, stakeholders and clients, communicating and acting transparently.

### ACCOUNTABILITY

Providing focus and clarity on our goals and responsibilities towards teams and stakeholders, empowering people and teams to succeed and leading energizing and frank conversations.

### ONE ENGIE

Implementing and delivering ENGIE's strategy through the ENGIE Ways of Working, driven by value creation for ENGIE as a whole and its clients whilst leveraging the diversity of ENGIE people.





# 05 HEALTH, SAFETY, SECURITY & ENVIRONMENT









# OUR ONE SAFETY APPROACH

**As an organization we continuously strengthen the process and improve the tools to ensure that each of our employees and subcontractors are working in safe conditions and that No Life is ever at risk.**

Our Health, Safety, and Environment (HSE) priorities consider the specific risks and challenges inherent to the access-to-energy business and our geographical region of operation. They are embedded in a comprehensive risk assessment that identifies critical areas where proactive measures can mitigate potential harm and enhance overall safety performance.

In 2021, ENGIE embarked on an extensive health and safety transformation plan, reinforcing its dedication to safeguarding lives.

Within ENGIE Energy Access, the translation of the ENGIE transformation plan in 2022 emphasized the following **focus areas**:

- Ensuring the management team's active engagement in all Health, Safety, Environment, and Resilience (HSER) matters, including the establishment of HSE Key Performance Indicators (KPIs) for each manager.
- Conducting HSE prequalification audits for all Engineering, Procurement, and Construction (EPC) activities.
- Undertaking a comprehensive review of the overall risk assessment for our two primary activities, namely Solar Home Systems (SHS) and mini-grid projects.
- Implementing HSE inspections across 70% of our countries and locations to enhance safety and compliance measures.



**MORGAN GAUTHIER**  
HEAD OF HSSE  
ENGIE ENERGY ACCESS



The ambitions of EEA in terms of Health and Safety are to improve security standards in the various countries where we operate, while also adhering to the existing norms in these countries. We aim to provide our employees and subcontractors with a zero-risk environment and regularly reassess this risk to best adapt to local conditions."



## Key Health and Safety accomplishments and highlights in 2022 included:

- Attaining 120 Million Safe Work Hours across 9 markets.
- Ensuring that 100% of new employees received training on the LIFE SAVING RULES.
- Devoting an entire week to raising awareness about Health and Safety.
- Conducting audits at 70% of workplaces and reviewing all risk assessments.
- Implementing thorough Motorbike Personal Protective Equipment (PPE) training initiatives.



## In 2023, our primary focus regarding Health, Safety, and Environment (HSE) priorities revolves around the following key areas

1. **Governance:** We are dedicated to rolling out and implementing the Group Rules and Standards to ensure a consistent and high level of safety across all operations.
2. **Leadership:** We are reinforcing leadership commitment through Management Safety Visits (MSVs) and encouraging ownership of action plans among our leaders.
3. **People:** We are enhancing the roles and responsibilities of our HSE team, conducting competency assessments, and providing mandatory HSE training to our employees.
4. **Culture and Well-being:** We are promoting a positive work culture through the Positive Recognition & Fair Sanctions Programme. Additionally, we are conducting Health and Safety (H&S) and Transport Safety Campaigns to ensure the well-being of our workforce.
5. **Operational Control:** Our focus is on developing the business (PV B2B) in a safe manner and ensuring the safe execution of CBEA Minigrid Projects.
6. **Risk Management:** We are proactively analyzing and identifying risks through a comprehensive risk register. We are reinforcing key safety pillars such as Stop Work Authority, Last Minute Risk Assessments (LMRA), and Life-Saving Rules (LSRs). Proactive drills and training sessions are being conducted to strengthen crisis management and emergency response protocols.
7. **Contractors/Vendors:** We are actively managing contractors and vendors through a rigorous selection, onboarding, oversight, and mentoring process to ensure their adherence to our safety standards.
8. **Assurance:** We are analyzing and trending data to provide valuable insights. We are also maintaining a mindful and targeted presence in the field to ensure compliance and best practices.

Our challenge lies in mobilizing all teams, especially third parties working with us and EPC contractors operating in hostile and remote environments, to prioritize safety above all else. We are committed to creating a safe and secure working environment for everyone involved.





# 06 OUR SOLAR HOME SYSTEMS









# OUR SOLAR HOME SYSTEMS

**Solar Home Systems (SHS) are stand-alone photovoltaic systems that offer a clean and cost-effective mode of supplying amenity power for lighting and appliances to remote off-grid households. In remote locations that are not connected to the grid, SHS can be used to meet the energy demands of a household and fulfil fundamental electrical requirements such as illumination and powering up devices such as phones, radios etc.**

Our SHS kit capacities vary from 10W to 200W, providing a range of power options to accommodate a variety of requirements. Customers select the kit size most appropriate for their households, leveraging off the company's "lease-to-own" model: Based on our PAYGo or Arrears Model, customer kits are financed through a microfinance plan with instalments as low as \$0.19 per day. Customers receive ownership of their products, once the loan has been successfully paid off.

By implementing strategic initiatives in all our markets, such as optimizing local governance and performance management, strengthening reporting and forecasting capabilities, and improving distribution and agent recruitment processes, we have effectively boosted sales and customer experience in our SHS segment.



## OUR LEASE TO OWN MODELS

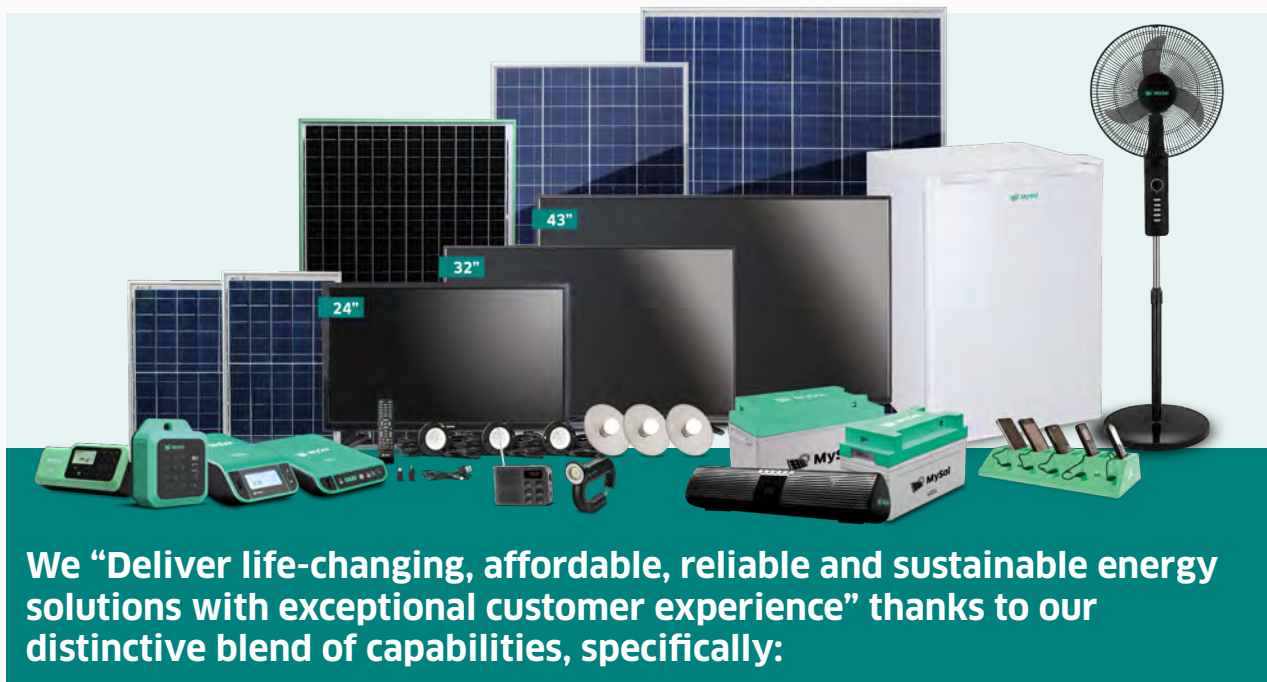
### PAYGo Model

Under this model, customers are required to make daily prepayments to access / unlock the SHS kits, otherwise the system is locked and not accessible. No catch-up payment is required for past period arrears and customers therefore pay to access the kit daily.

### Arrears Model

This model is used for high-end kits and customers are required to stick to a fixed tenor, with past period arrears needing to be cleared before the kits are unlocked for use.





**Product Quality:** Designed and tested by EEA and manufactured by renowned manufacturers.

**Geographical Footprint:** Across 9 markets and looking to expand across 5 more.

**Customer Experience:** Strong marketing value proposition founded on data analytics, appropriate client segmentation, maintaining multiple touch points with customers to provide an inclusive experience and cohesive cross selling.

**Brand:** Global brand to leverage on, including key value propositions from other markets.

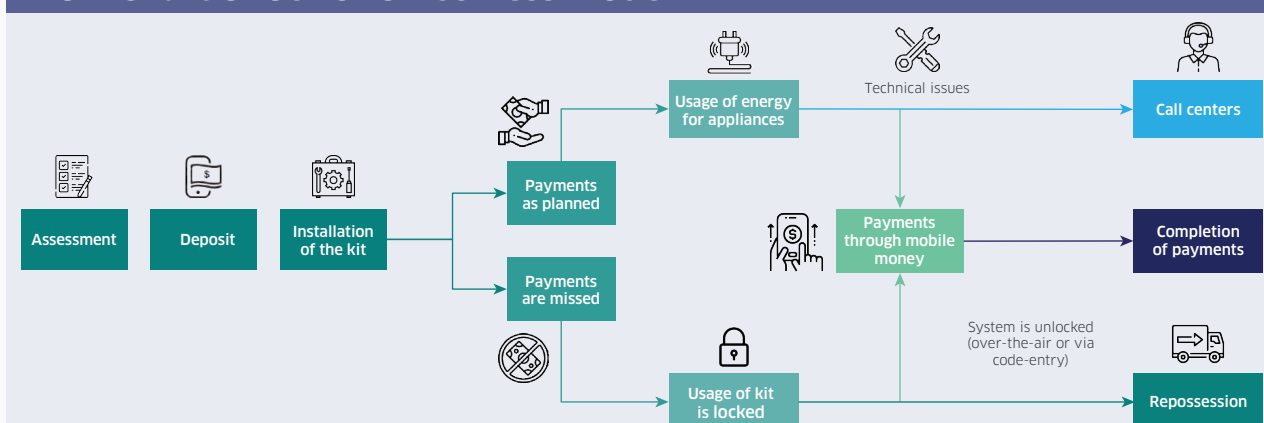
**Vertically Integrated Business:** Strong design and manufacturing arm to ensure quality products, which are fit for purpose.

**Complementary Products:** EEA offers accessories and appliances that complement our SHS kits and are key to providing “Best Solar, Best Life” to our customers.

**Digital Competency:** Business model is anchored by strong proprietary systems, tailored at enhancing customer experience and monitoring capabilities.

**Customer Finance:** The unique PAYGo and Arrears Model provided by EEA, allows target customers to have energy access for productive use, through a flexible microfinance plan (12 - 48 months).

### Flow Chart of our SHS Business Model





# FIELD AND SERVICE OPERATIONS

**Across our 9 countries of operations, we have an extensive on-the-ground field force plus more than 5000 field agents. Depending on market and experience, most agents handle a dual role, being in charge of both customer acquisition and credit collection, especially in the last-mile customer interactions.**

Our on-the-ground teams undergo special trainings at regular intervals, either delivered via a dedicated trainer or a senior team member. This equips our customer facing staff with the necessary skills to deliver on our sales and customer experience targets. To better streamline operations and optimize the sales process, our field teams utilize our in-house development sales application MySolGo.

In the realm of credit collection, our field agents play a crucial role in the early stages of the loan process. They have access to tools that enable them to closely monitor the performance of loans they originated and to promptly follow up with clients to ensure smooth

collection processes. Sales agent remuneration is 100% commission based and considers the following three performance indicators: Number of kits sold, types of the kits sold, and the portfolio health of the loans originated. This ensures that our performance aligns with the commission payments for sales agents and guarantees that credit risk is suitably prioritized at origination.



## MySol Go

Our in-house developed Mobile app is EEA's comprehensive solutions for onboarding customers, managing portfolios, monitoring customer performance, handling installations, and managing inbound/ outbound calls and ticketing.

**In all our markets we operate a local Customer Care centre (reachable toll free) that is responsible for the following tasks:**

**Troubleshoot:** Receive customer service calls and provide prompt assistance with troubleshooting issues.

**Follow-ups:** In conjunction with field teams, make outbound calls to customers in arrears to ensure smooth resolution of their concerns.

**Telesales:** Engage in outbound sales calls to existing customers, offering them opportunities for upgrades and enhanced services.

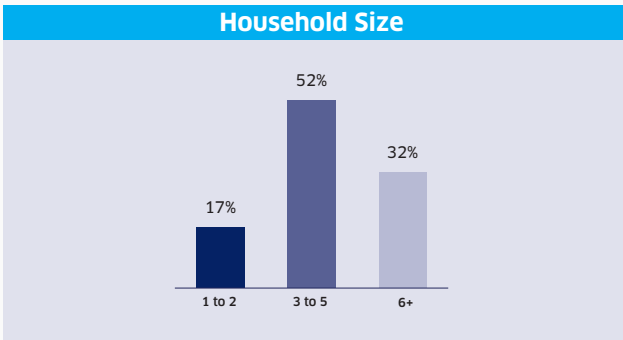
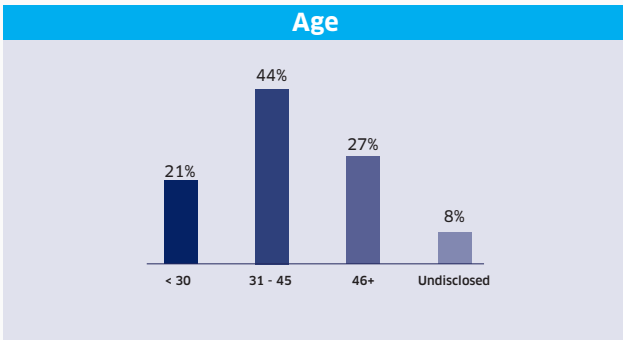
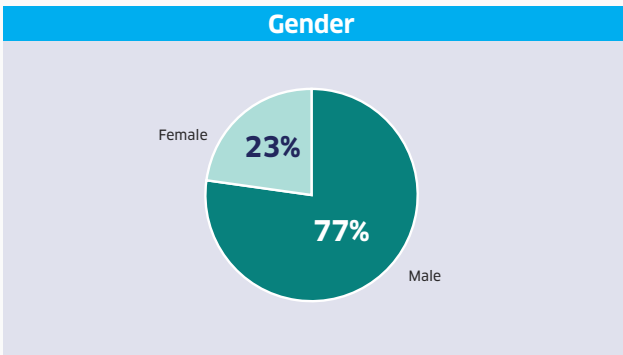
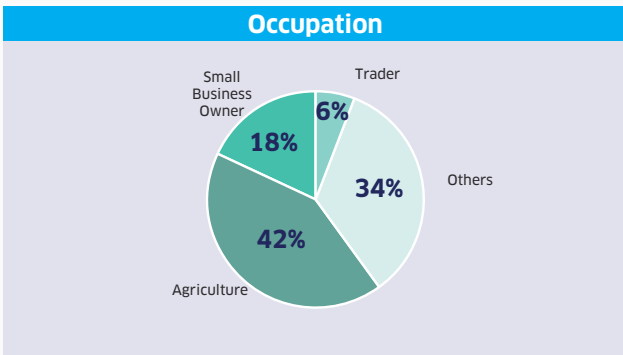
**Quality:** It conducts routine check-ins with customers to assess the quality of the services they are receiving, ensuring a high standard of service delivery.



# CUSTOMER EXPERIENCE - A CORE PART OF OUR DNA

Providing an exceptional customer experience is central to our work. It's ingrained in our organizational DNA, influencing how we build our teams and organize our operations. We presently reach and positively influence over 10 million individuals across nine markets, and this number continues to expand daily.

## We serve a diverse range of customers:



Mr. Okello, a resident of northern Kenya, has a diverse portfolio of small businesses. His entrepreneurial ventures include a tailoring center, a grocery store, a mobile-charging station, and a barbershop - all powered by a single 200W solar home system.

Acquiring the solar-powered haircutter allowed him to open his barbershop, and with the mobile charger, he can charge 10 customers' phones simultaneously.

Mr. Okello expresses his satisfaction, saying, "I love that I make money with my solar system and can pay off the installments with what I earn. The system was installed right after I signed up - and if there are any problems, I can just call the hotline and a technician is send to fix the issue."





**Thanks to our customer service offerings and strong field presence we have achieved exceptional results in enhancing the customer experience, aligning with global benchmarks:**

- 1 Net Promotor Score** remains stable at +85, which is more than double of the industry average for solar in Africa.
- 2 Answer rate** (ability to answer calls) has averaged 62%, which is highly commendable given the forced shift to WFH models in call centres, pressure on high quality VPN connections for agents to connect to the PBX and the overall impact of taking call centres remote in some locations.
- 3 Issue Resolution Rate** is a metric that aims to ensure that at least 80% of customer issues are resolved within SLA. It is currently at 94%
- 4 Service Level** is a metric that aims to ensure EEA serves more than 75% of customers that call in within 30 seconds from 180 seconds. It is currently at 65%, which is an achievement given the BOLD target set.
- 5 Average waiting time** has seen significant improvement from 57 seconds down to 47 seconds on average due to the improvements in self-service channel rollouts and utilization
- 6 Focus on self-service channels** (i.e. IVR and USSD) now accounts for over 78% of all traffic through EEA call centres, making them more efficient and thus better able to cope with the increasing demand



9 Call Centres



278 Service Centres



3k Customer Visits Per Day



27k Average Calls Received Per Day



68 Total Languages Spoken



40m Customer Requests (all channels incl. USSD)



Our approach to the EEA customer journey revolves around catering to the diverse needs of our customer archetypes (personas) at every phase.

We carefully plan how to engage our employees, empower them with the necessary tools, document our processes, pinpoint and resolve pain areas, promote our products and services, and cultivate customer loyalty and advocacy.

In 2023, we initiated the “**Step into the Customer’s Shoes**” campaign to heighten our employees’ understanding of our customers’ perspectives. This six-week campaign culminated in the Customer Service Week (CSW), a period of recognition for both our internal and external customers. CSW not only inspired our workforce but also facilitated a unified understanding of customer expectations. Moreover, it acknowledged innovation and excellence through rewards.

In the same year, we introduced two pivotal Standard Operating Procedures (SOPs) to reinforce our customer experience foundations.

The **Customer Satisfaction Measurement SOP** was designed to calculate Net Promoter Score (NPS) and Customer Satisfaction (CSAT) as key metrics while streamlining the process for closing the loop with customers, both within our organization and externally.

Simultaneously, the **Warranty Procedures SOP** provided lucid directives on handling products within and beyond the warranty period.

Our customer experience pillars are built on a profound comprehension of the customer journey, providing numerous touchpoints and channels, actively listening to customer feedback and striving for continuous improvement









# EMPOWERING OPERATIONS THROUGH TECHNOLOGICAL INNOVATIONS

We have developed the following propriety systems to support our SHS operations:

**MySolFire:** Providing device diagnostics.

**MySolGo:** Mobile app that support with sales, onboarding and customer follow-ups.

**Mzee:** Analytics database (cloud data lake/ data warehouse).

**Powerhub:** Customer relationship management system that also support with loan management.

**XDesk:** Ticketing and after sales service system.

	Requirement	Internal System	External System
Internal Systems	Financial Accounting	Powerhub, Mzee	SAP
	Portfolio Health and Credit Risk Monitoring	XDesk, MySolGo, Mzee	Tableau
	Agent Stock Management	MTawi	
	Business Intelligence	Mzee, Tableau	
	Experimentation and Fast Iteration	Mzee	
Field Team	HR and Payrolling		Sezame, SAP
	Remote Field Team Training		Moodle
	Remote Field Team Performance Management	MySolGo	
Customer Systems	Customer Acquisition, Onboarding, and Credit Scoring	MySolGo, Powerhub	
	Customer Finance Solutions	MySolGo, Powerhub	
	After sales support, ticketing, and device monitoring	XDesk, Powerhub, MySolFire	
	Marketing and Mass SMS Comms	Powerhub	

## Our dedicated Data Team is responsible for:

- Predictive Modelling: Including credit assessment, repayment forecasting. Predictions are based on repayments and IoT data that predicts future portfolio development and allows us to react in real-time on changes and streamline our follow up with customers.
- Data Analytics and Integrity
- Data Infrastructure Integrity
- Database and Reporting Integrity
- Ticketing and Operations
- Measuring Effectiveness of Campaigns
- Near real-time Management Reporting dashboard

A large number of customers live in hard-to-reach, rural areas, often with poor network infrastructure. As such, most SHS are connected via GSM to a server that monitors conditions and raises technical alerts. Remote connectivity allows EEA to offer low daily mobile money payments, with ability to automatically unlock a system when a payment is received and lock the system when a loan is in arrears. For low-cost devices (usually without GSM connectivity), there is the possibility to unlock a system by entering a series of numbers (token) on the keypad. Tokens are received automatically through SMS upon any mobile money payment.



# CUSTOMER FINANCE AND MITIGATING CREDIT RISK

The vast majority of EEA's target group customers is not in command of the financial means to acquire a quality SHS for cash. We therefore offer prospective customers to obtain their kit on credit. A small down-payment is required before product handover to the customer. While EEA retains ownership of the kit until all instalments are received, there is no requirement for the customer to provide collateral. Doing so, EEA obviously faces a risk of customers not being able to pay for their kit over time. Our Customer Finance (CF) team is established to mitigate such credit risk exposure.

The Customer Finance team operates within two primary dimensions: the assessment of new risks and the management of existing ones. Our objectives within this scope are clear. Firstly, we aim to run the credit function effectively, ensuring that defaults are maintained within a specific tolerance corridor. This strategic goal is fundamental to safeguarding our financial stability and ensuring responsible lending practices. Secondly, we

emphasize running the credit function efficiently, aiming to optimize operational expenses (OPEX) while still upholding our default rates within the designated tolerance corridor. Striking this balance is key, enabling us to maintain financial prudence, enhance customer experience, and ensure long-term sustainability within our organization.

The Customer Finance workflow is organized around stages of the credit cycle across all operations. The right-hand side of the credit cycle is about customer assessment, underwriting and onboarding, i.e. the contracting of new customers. We verify customer data against benchmarks in order to ensure that we will sell a product to the customer that addresses a customer's need, and that the customer will be able to afford.



*Schematic Illustration of EEA's Credit Cycle*

The left-hand side of the credit cycle is about ongoing engagement with customers during loan life with a particular focus on addressing customers with repayment problems through an escalation framework. Given the disproportionately high cost of loan workout, repossession of the kit is only a last resort.

# PORTFOLIO QUALITY TRENDS

At EEA, we take SHS pricing decisions at a Pricing Committee. The Pricing Committee takes the various cost drivers of our operation into consideration, in particular the cost of goods sold, operational expenses, cost of funding, and cost of risk. Obviously, the cost of credit risk, namely the cost of customer payment default, can only be known at the tail end of their loan tenor, and we thus have to work with assumptions and extrapolations. Hence, pricing decisions are taken with a default rate target, and it is then on the Customer Finance function to employ its credit risk management tools to ensure that default remains within a specific tolerance corridor stipulated by the Pricing Committee.

To this effect, the Customer Finance function has established a range of KPIs to track portfolio quality with and around the Implied Default Rate (IDR) at its core. The IDR represents the sum of the losses already incurred on a discrete portfolio plus the sum of the expected (future) losses which can be expected to materialize as this discrete portfolio reaches its maturity. Capitalizing on our insights on key drivers for loan default, we actively manage to manoeuvre the IDR to trail within the specific tolerance corridor stipulated by the Pricing Committee.





# OVERVIEW OF DEFAULT RISK DRIVERS

**Based on a review of default records, we distinguish between financial capacity and customer commitment reasons that lead to loan default, and its key drivers can be classified as follows:**

## 1 Lack of Financial Capacity.

This accounts for ~60% of why customers default. Key mitigation strategies that EEA employs to address a customer's financial capacity include:

- **Product to Customer Fit:** EEA ensures that the choice of an SHS kit fits the customer's needs rather than meets the customer's aspirations. In addition, EEA ensures payment plans are explained to the client to ensure financial literacy.
- **Commercials:** The combination of tenor, total finance price, daily rate and upfront deposit is optimized to meet the expectations and economic reality of the customer whilst ensuring there is sufficient "skin in the game" to incentivize customers to complete payment plans.
- **Customer Vetting:** Establishing an effective and efficient workflow to assess an applicant's capacity and willingness to pay is crucial to control defaults. We employ KYC questionnaires for all kit sales, complemented by socio-demographic scoring and credit reference checks for our

higher value kits. Beyond, EEA works towards utilizing a comprehensive modular customer assessment methodology allowing for a flexible and incremental credit-worthiness assessment of potential customers.

- **Problem Case Solving:** For our committed customers we offer options to reschedule a facility or to adjust ("right-size") the capacity of the SHS kit as required.
- **Residual Lifetime:** EEA ensures that the SHS kits have reasonable residual lifetime at scheduled point of loan completion which acts as an incentive to ensure payments continue to be made especially when repossession discussions are brought up.

## 2 Lack of Customer Commitment and operational risk factors

account for ~40% of why customers default. The main default drivers and our respective mitigation strategies include:

- **Overselling and Sales Process Failure:** We learnt that alignment across

performance KPIs serves as a mitigation and hence made agent remuneration a function of sales and portfolio quality KPIs. This ensures that transparent sales are originated which contributes to credit risk being suitably prioritized at origination.

- **Payment Channel Malfunction:** As a mitigation, we provide digital and call centre support to help customers with making electronic payments. EEA also continuously expands its partnerships with reliable mobile money payment partners.
- **Product Failure:** Key mitigation strategies employed to assure high customer satisfaction with our hardware include the sourcing of reputable manufacturers and a transparent return policy with faulty units being replaced within a reasonably short period.
- **Competition:** We mitigate by differentiating ourselves through the quality of the hardware sold, through our brand and distribution network as well as through the presence of our service teams.



## PROVISIONING

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ENGIE Energy Access faces credit risks, as over 95% of its SHS kits are sold on credit. Given the economic realities of our customers, EEA does not require loan collateral, yet retains kit ownership until full loan repayment. In order to cater for and cover the credit risk entailed in our portfolio, EEA sets aside bad debt provisions for the expected loss at all times in compliance with financial sector best practice.

Expected loss (EL) is calculated by multiplying exposure at default (EAD) with probability of default (PD) and loss given default (LGD). EAD decreases as customers repay loans. LGD signifies the likelihood of not recovering a defaulted loan. To calculate PD, EEA uses two concepts in parallel: For entry-level products under Pay-As-You-Go plans, historic loss matrixes (HLM) inform PD based on loan status. LGD is assumed to be close to 100% due to low residual hardware value and costly kit repossession. For larger products under arrears-type plans we calculate PD for specific payment arrears buckets which factor in mitigation efforts and asset liquidation or reuse proceeds. For both payment plan types, bad debt provisions are determined on individual loan basis by multiplying the outstanding amount with the respectively applicable provision factor as per HLM or arrears bucket approach. It is also part of our prudence approach to fully provision every exposure on which we have not received the mandatory number of payments for a consecutive period of 180 days, and such loans will be written off subsequently.

We calculate the loan loss provisioning requirement for every loan at the end of every month, and the required loan loss provisions are set aside, i.e., processed through the P&L at balance sheet date.







# COMMITMENT TO CONSUMER PROTECTION PRINCIPLES BY GOGLA

The six Consumer Protection Principles serve as the fundamental pillars of the CP Code, setting forth the minimum standards of practice. These principles were established by GOGLA (Global Off-Grid Lighting Association) in its Consumer Protection Code of Conduct in February 2021. They represent the baseline expectations that consumers should have when engaging with an off-grid solar company. As ENGIE Energy Access, we are wholeheartedly committed to upholding these principles and have conducted two Consumer Protection self-assessments to date.

SIX CP PRINCIPLES BY GOGLA	EEA SELF-ASSESSMENT RESULTS (2023)
<b>TRANSPARENCY</b> The company shares clear and sufficient information on the product, service, payment plan and personal data privacy practices to enable consumers to make informed decisions. The company shares relevant and timely information before, during and after sales. The company communicates in a language and manner consumers can understand.	Mostly met
<b>RESPONSIBLE SALES &amp; PRICING</b> The company takes adequate care to ensure consumers can afford to pay for the product and / or service without becoming overburdened. The company ensures consumers' characteristics are taken into account in the price, payment structure and fees of the product and / or service.	Mostly met
<b>GOOD CUSTOMER SERVICE</b> The company ensures availability of technical and after-sales service support, including warranty and post-warranty service for a reasonable period of time. An accessible, effective and timely mechanism for complaints and problem resolution is in place. The company instructs consumers on proper use and care, and any health and safety risks, related to the product usage or disposal. The company considers measures to enable continued operability of the product in the event of the failure of the company.	Fully met
<b>GOOD PRODUCT QUALITY</b> The company ensures the product / system is appropriate, good quality, safe and performs as advertised. The company ensures the user interface / payment platform is appropriate for consumers. The company takes reasonable measures to ensure product longevity (including ease of operation and maintenance, repairability and durability).	Fully met
<b>DATA PRIVACY</b> The company applies good practices and comply with relevant laws and regulations governing consumer data privacy. The company only collects, use, retain and share personal information that is necessary for the stated consumer service and legitimate interests of the business. The company ensures consumer data is kept secure and confidential.	Mostly met
<b>FAIR &amp; RESPECTFUL TREATMENT</b> The company ensures fair and respectful treatment of current and prospective consumers, with adequate safeguards in place against corruption and abusive treatment. The company promotes inclusive practices and do not discriminate, for example, by gender, religion or ethnicity. The company seeks consumers' views and feedback on the design and delivery of the product, service and payment plan.	Mostly met



# SUSTAINABLE PROCUREMENT AND PRODUCT QUALITY

At ENGIE Energy Access, we manage the entire supply chain - from production to handover of product to our clients. This vertical integration empowers us with significant control and adaptability throughout the entire value creation process. Additionally, our strong collaboration among manufacturing in Shenzhen, Research and Development in Berlin, and our Product team in Kampala (East Africa), play a crucial role in guaranteeing competitive pricing, rigorous quality control, and proximity to our customer base.

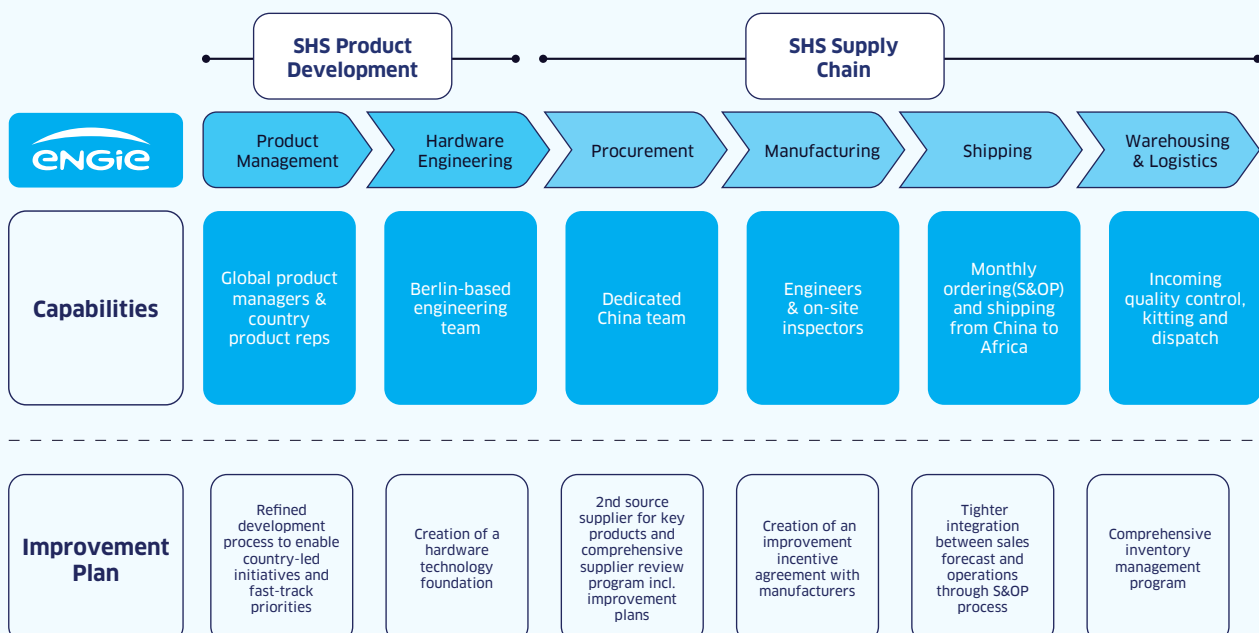
For fully-designed products, our R&D and hardware engineering team develops prototypes that are then sent to Contract Manufacturers (CMs) who manufacture the products under supervision of our China office and in compliance with EEA's Production Part Approval Process (PPAP). PV panels, batteries, and attached devices are outsourced, while all hardware components, including the PCB, are manufactured in China through our CMs.

The delivery of products, originating from China and destined for Africa, typically spans a period of three to five months from order placement to delivery. Once the order reaches destination, they are directed to central warehouses - with each country of operation having its own national warehouse.

The national warehouses further serve as final kitting and assembly facilities, before they are dispatched to local shops, service centres and storage points across the countries. These facilitate both walk-in sales and sales through our on-site agents.

## Production Part Approval Process (PPAP)

The PPAP ensures that the supply of products comply with design specification and show documentary evidence that the quality level can be maintained during the life of product







## PRODUCT QUALITY IN FOCUS

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- **Designed and Tested in Germany:** Our RnD and hardware engineering team, located in Berlin, consistently uphold the renowned standards associated with German excellence.
- **“Protect the customer’s right to the highest-quality hardware”:** Our China Team’s mission statement to our customers are served best quality only .
- **“In-the-field” quality assurance:** Our local teams in Africa inspect, test and maintain standards for quality of shipped or repaired products.
- **Quality detailed procurement and manufacturing:** Our standards and procedures ensure consistency and integrity throughout our supply chain
- **Competitive Warranties:** Our product warranties are equal to or longer than those of other off-grid players.
- **Exceptional Customer Experience:** Engrained in our values and leading to an outstanding NPS of 92.

## SUPPLY CHAIN PROCESS

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Within the framework of its vigilance plan, ENGIE makes sure that human rights are respected in its supply chains.

To achieve these ambitions, the Procurement function contributes to the reduction of risks in the supply chain through a rigorous supplier management, within the framework of its ethics and corporate social responsibility requirements, implemented in ENGIE’s vigilance plan.

The ENGIE Procurement Charter specifies ENGIE’s commitments and expectations in its relationships with its suppliers and throughout all its supply chains.

Reputable equipment manufacturers and suppliers are sourced primarily from China using the dedicated team based in China, which allows for strategic sourcing, purchasing, quality control, and export and logistics management. Equipment from various suppliers is bunkered together and then shipped to the respective EEA entities across Africa.



## SUPPLIER AND MANUFACTURER SELECTION

Every supplier and manufacturer must undergo a thorough selection process, which includes the following stages:

- **Initial list:** Populated by a drive by audit and supplier / manufacturer willingness to be onboarded.
- **Panel Review:** An independent panel with heads from various areas in the business, screens the initial list.
- **Shortlist:** RFPs are reviewed under a Critical Requirements Evaluation Matrix
- **Panel Decision:** An independent panel with heads from various areas in the business finalizes the shortlist selection.
- **Contracting:** Credit check and detailed due diligence is undertaken, after which a contract is finalized with supplier / manufacturer.

Additionally a **Due Diligence process** is designed to align suppliers with EEA's long-term development strategy. This process consists of three main components: Ethics Check (Level 1 & Level 2), Credit Check, and EcoVadis Rating Methodology. These elements collectively ensure the quality of the supplier's sustainability management system. The assessment covers 21 key issues grouped into four themes, being Environment, Labor & Human Rights, Ethics, and Sustainable Procurement.

We have a diversified base of suppliers and manufacturers for different components and products, managed by an internal quality control team.

- Core components like the Solar Controller and Printed Circuit Board undergo continuous improvement from EEA's R&D and Firmware teams. Products are developed in-house and subsequently provided to Contract Manufacturers.
- Contract Manufacturers are supervised at various stages to ensure the given specifications are met.
- Quality supervision takes place during and after the manufacturing process, inclusive of factory audits, production inspections, external testing labs, pre-shipment inspections and production monitoring.
- Other accessories are procured from a select group of approved suppliers.

COMPANY	PLANT AREA	REVENUE (2021)	PAYMENT TERMS	CERTIFICATES
<b>Kaifa - China</b> <ul style="list-style-type: none"> <li>Founded in 1985 and ranks 12th on MMI's list of Global Top 50 EMS Providers in 2022</li> <li>Relationship with EEA since 2019</li> </ul>	170,00m <sup>2</sup>	\$2.5B	Net 45	ISO9001, IATF16949 ISO27001, ISO13485 ISO17025 , ISO14001OHSAA18001, ECOVADIS
<b>Hibit - China</b> <ul style="list-style-type: none"> <li>Founded in 1996</li> <li>Relationship with EEA since 2014</li> </ul>	6,500m <sup>2</sup>	\$28M	Net 45	ISO14001 OHSAS18001 ISO9001 and ISO13485 ECOVADIS
<b>Eastek - China</b> <ul style="list-style-type: none"> <li>Founded in 1990</li> <li>Relationship with EEA since 2016</li> </ul>	22,000m <sup>2</sup>	\$65M	Net 30	ISO14001 and OHSAS18001 ISO9001 and ISO13485
<b>Fosera - Thailand</b> <ul style="list-style-type: none"> <li>Founded in 2011</li> <li>Relationship with EEA since 2020</li> </ul>	1,320m <sup>2</sup>	\$2.5M	Net 45	ISO9001



## MAJOR WORKS CARRIED OUT & CONTINUOUS KEY PRIORITIES FOR 2024

- **S&OP Processes and Tool Enhancements:** Installed new S&OP processes; implementation of new planning tool to level-up S&OP accuracy.
- **Regional Warehouses Deployments:** Explore the regional stock concept to continue reducing our inventory capital continuously.
- **End-to-End Logistics Optimizations:** Optimize(d) the end-to-end logistics cost including container rate, customs clearance, and inland trucking etc.
- **Global Quality:** Restructure the quality functions to improve efficiency and effectiveness.

## SUPPLIER ENGAGEMENT

The supply chain is composed of three main types of suppliers, subject to different quality checks and competition biddings.

We lead a constant **double-supplier strategy** for highly strategic parts. This allows for **better cost control** and **shortage management**. Faced with a shortage of microchips due to Covid crisis, we managed to maintain production and experienced only a limited **price increase of 6% (overall)**. Our organization relies on three main types of products and corresponding suppliers: **off-the-shelf** products, **co-developed** products and **fully-designed** products.



## LOCAL DISTRIBUTION

Once product manufacture is completed in China, equipment from various suppliers is bunkered together and then shipped to a dedicated central warehouse in each respective EEA entity across Africa. It takes about three to five months from the point of order to the point of shipping.

Products are then dispatched from the central warehouse in each country to distribution points (+500 locations) including EEA-managed shops and smaller third-party "stock points."

Sales teams are assigned to each service centre/ shop or stock point. For entry level systems, sales teams can collect stock from the respective centres and engage in sales activities in the field. For high-end systems, sales teams are responsible for gathering and overseeing potential customers, who subsequently visit the store to finalize the purchase and receive the product, which is then installed by an in-house trained technician.

If a technical problem arises, the customer can either return the product to the store or request a technician to be sent for maintenance. If the issue cannot be resolved locally, the customer is offered a replacement item while the faulty unit is sent to a central warehouse for repair or recycling.

# RESPONSIBLE E-WASTE RECYCLING



**In addressing the issue of e-waste, EEA places significant emphasis on responsible recycling practices. With an annual waste generation of approximately 200 tons, our commitment to e-waste management is robust. Before designating any product as “waste,” it undergoes a meticulous process involving troubleshooting, refurbishment, and repair within our Technical Centers. Only when a product is beyond repair is it classified as broken, triggering the e-waste management protocol.**

We partner with government-approved e-waste professionals in 8 out of our 9 operational countries. These partners undergo regular audits to ensure adherence to ethical, safety, and operational standards. They are responsible for collecting, dismantling, recycling whenever possible, and appropriately disposing of all waste generated by our activities. Subsequently, we obtain detailed documentation related to the completed e-waste treatment, including collection weights and certificates of disposal or recycling.

At a strategic level, EEA co-chairs the Circularity Group at GOGLA, advocating for comprehensive e-waste management and circularity models at the policy-making level. Additionally, we engage in partnerships with select companies to develop battery repurposing projects, aiming to extend battery life into various applications.

Currently, our primary focus is on enhancing e-waste solutions in our 9th country of operation, where effective e-waste management is lacking. We are actively working to ramp up and professionalize a designated recycler in this region, aligning with our commitment to responsible and sustainable waste management practices.



# 07 OUR MINI-GRID BUSINESS





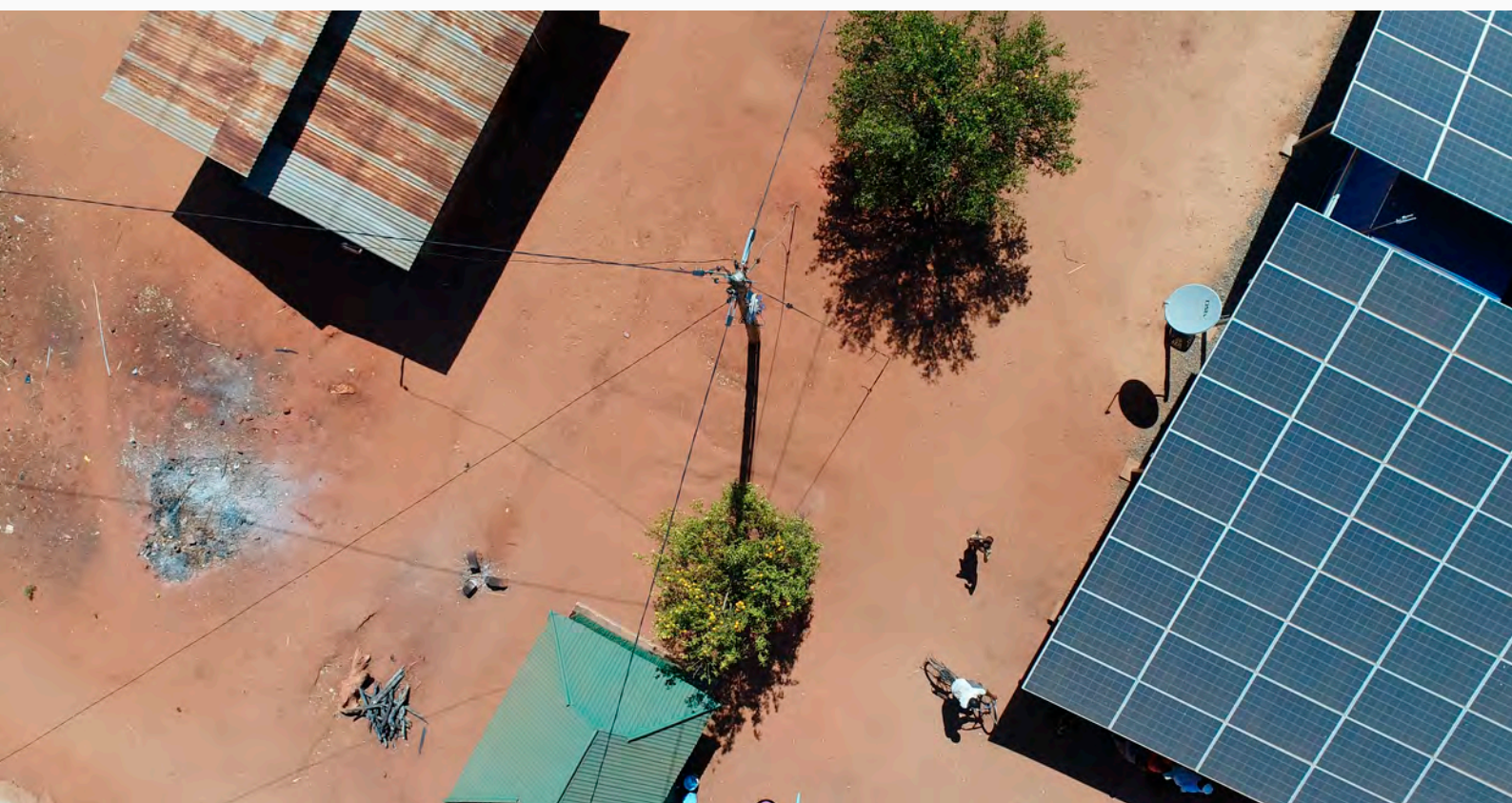
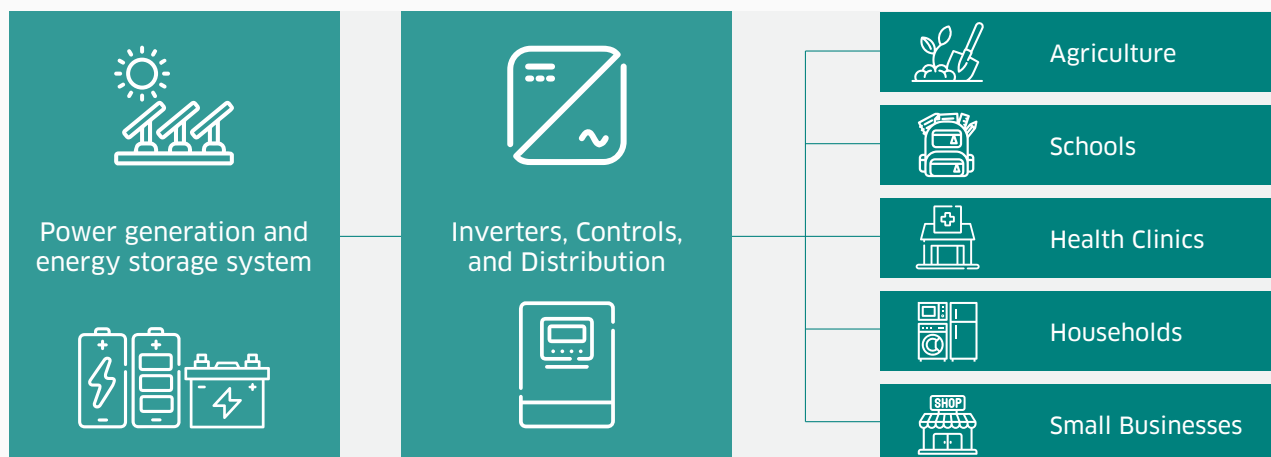




# TRANSFORMING COMMUNITIES AND BUSINESSES

By integrating solar energy, mobile money, pre-paid smart energy meters, and efficient equipment, EEA's MySol Grids have empowered a diverse range of users, from small industries and workshops to public services, businesses, and individual setups. Through the PAYGo system enabled by smart meters and mobile money, households and businesses can access electricity after paying a nominal connection charge, fostering economic growth and improving living conditions. The MySol Grids not only provide sustainable energy solutions but also nurture entrepreneurship, stimulate economic potential, and enhance overall community well-being.

## MINI-GRID VALUE CHAIN



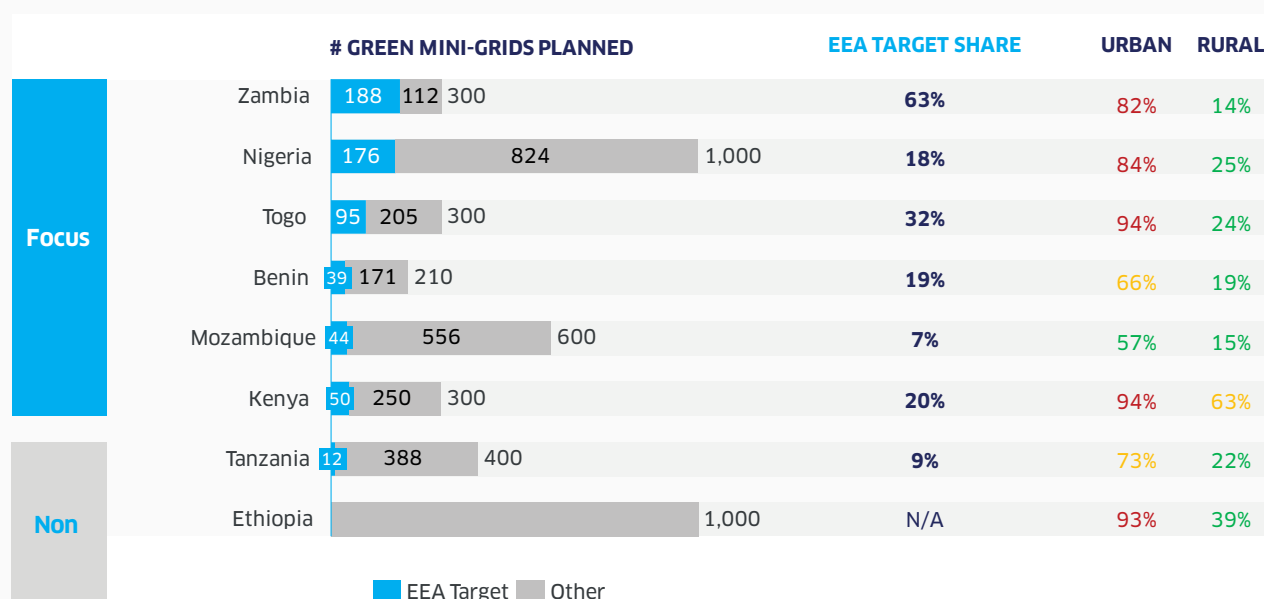
# MARKET EXPANSION APPROACH

EEA will have a total of 30 operational mini-grids (MG) across Africa by the end of 2023 and is on track to expand this number to nearly 100 mini-grids by 2024. In addition, we intend to develop an additional 200 mini-grids in the medium term.

Our expansion strategy focuses on a modular and gradual approach, involving pilots in new markets and collaborations through tenders and Results-Based Financing (RBF) programs. The selection of a new country for mini-grid implementation is based on several key factors, including substantial market potential, a supportive legal framework, a conducive environment for private investors, and the availability of subsidies or grants.

## MINI GRIDS: FOCUS

To 2030, we will focus on 6 key countries.



## SELECTION CRITERIA FOR NEW SITES

The development process phase consists of a number of interrelated processes from site surveys, site analysis, site selection, definition of sites, number of connections, tariff structure, price setting, revenue calculation to Income-Generating Activities (IGA) development support.

1. Site surveys are the most efficient way to gather on-site information that helps to predict the future consumption of potential clients, access to key information to size the grids and to match future customers energy needs. A digital template “Epicollect” tool can be adjusted to country specifics.
2. Site analysis to overcome the uncertainties of exact consumption per site, reduce CAPEX/OPEX and better plan IGAs in similar sites as well as facilitate scale up.



3. After assessing the different activities in each village, EEA develops a list of core clients, which includes clients who own large capital machines such as hammermills and oil expellers.
4. EEA takes a 24-month view of connections and once the target number is achieved, the strategy then becomes to connect:
  - 60% before the start-up of the site
  - 80% at the end of the first year
  - The rest in the year after
5. Price setting and revenue calculations relies on an in-depth analysis of customer revenues and spending habits, ability, and willingness of customers to pay, a consideration of present alternatives in the villages (Diesel, SHS) and estimated monthly consumption. The tariffs are also driven by the regulator as approval is required before actualization. An estimate of the average tariff per category of customers is then derived.
6. IGA Development is at the heart of EEA's strategy, and we are continuously developing agricultural value chains, productive uses and income generating activities within the communities we operate in.

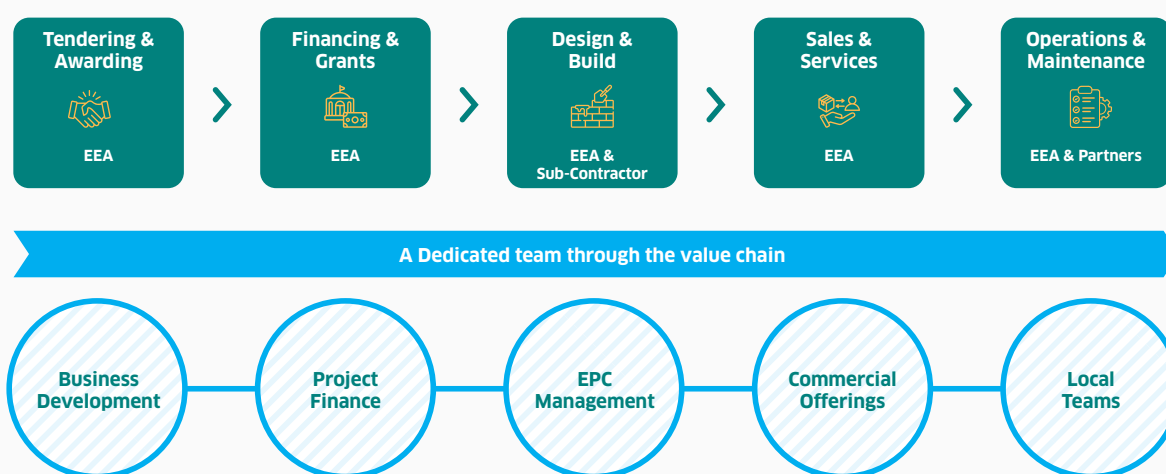
## DEVELOPMENT OF NEW SITES



# MINI-GRID DEVELOPMENT FRAMEWORK

We employ a process of “design, construct, own, and operate” for mini-grid development. Alongside building mini-grid, EEA offers a “lease-to-own” arrangement for energy-efficient appliances and industrial equipment, such as mills and industrial tools.

## EEA MINI-GRID CAPABILITIES



## MINI-GRID DEVELOPMENT PROCESS

- EEA collaborates with governmental entities in the process of finding prospective candidate locations for Mini-Grids. This collaboration involves, engaging with residents, and completing comprehensive studies as required to identify viable sites.
- The process of selecting an EPC (Engineering, Procurement, and Construction) contractor is often conducted through a competitive bidding procedure.
- EEA engages banks, governmental institutions, and development funds, to get essential finance and grants for the advancement of mini-grid projects.
- EEA has implemented a grant strategy inside its designated markets.
- EEA's development team is responsible for managing the process of determining the appropriate size of mini-grid. This involves considering factors such as population needs, productive usage, and the technical aspects of civil, mechanical, and electrical design.
- Additionally, the team addresses any logistical issues that may arise at the site.
- The software platform built internally manages several operational aspects of mini-grid, including alerts and consumer payments.
- EEA is responsible for managing various aspects of emergency response, equipment management, delivery or replacement, revenue collection, and quality control of client connections. This is managed through the unified software platform.



# MINI-GRID PRODUCT RANGE

Our mini-grid systems, ranging from 30 to 600 kW, provide power to entire isolated settlements that are challenging and expensive to connect to the national grid. Recently, we have introduced a new product line, the Solar Business System (SBS), with capacities ranging from 1kW to 10kW. We plan to launch a kit mix designed for poorly connected large households and small businesses in tier one EEA entities, namely Zambia, Nigeria, CDI, Benin, and Tanzania, during November and December 2023. The kit mix includes 3kW/5kWh, 5kW/10kWh, and 8kW/15kWh solutions, all of which are fully integrated, expandable, and stackable.

Simultaneously, we are finalizing the kit mix solution for the smaller SBS range, offering 2kW/2.5kWh kits tailored for the domestic market with unreliable grid connections. We aim to make this product commercially available before the end of 2023.

Both systems can be purchased outright or through a lease-to-own model. Under the lease-to-own scheme, customers make a percentage

down payment and pay equal installments over a period of one to two years. Payments will be managed through our PayGee platform, integrated into PowerHub. The energy supply will be contingent upon timely consumer payments; failure to adhere to payment schedules may result in a system shutdown



# OVERVIEW OF OUR MINI-GRIDS

Since our first pilot in Tanzania in 2016, we have deployed 15 mini-grid, providing 5,900 connections to almost 30,000 individuals.

Our mini-grid business focuses on fostering revenue-generating activities and productive uses, serving as a vital catalyst for economic growth and well-being in rural regions of Sub-Saharan Africa (SSA). The establishment of anchor loads plays a crucial role in ensuring the sustained financial viability of mini-grids.

With a heightened emphasis on enhancing productive activities in newly established mini-grid areas and considering the scalable nature of mini-grids, there is significant potential for expansion as productive activities grow.

No	Country	Project	Power / Storage (kWp / kWh)	Households Connected	Village Location <sup>(1)</sup>	C.O.D.
1	Tanzania	Ketumbeine pilot	15.60 kWp / 45 kWh	81	Monduli, Arusha	2016
2	Tanzania	Nakopi	29.16 kWp / 70 kWh	250	Nanyumbu, Mtwara	2017
3	Tanzania	Barikiwa Solar	29.16 kWp / 70 kWh	250	Liwale, Lindi	Oct 2017
4	Tanzania	Mbaya	29.16 kWp / 70 kWh	272	Liwale, Lindi	2017
5	Tanzania	Holola	16.20 kWp / 28.80 kWh	123	Masasi (South TZ)	2018
6	Tanzania	Mgambo	20.25 kWp / 28.80 kWh	222	Mgambo	2018
7	Tanzania	Mwenge	28.35 kWp / 57.60 kWh	362	Mkola	2018
8	Tanzania	Lukumbule	40.50 kWp / 57.60 kWh	257	Ligoma (South TZ)	2018
9	Tanzania	Kalya	28 kWp / 57.60 kWh	317	Kigoma (West TZ)	2019
10	Tanzania	Kiegei	16 kWp / 28.80 kWh	257	Lindi (South TZ)	2019
11	Tanzania	Matekwe	12 kWp / 28.80 kWh	163	Masasi (South TZ)	2019
12	Tanzania	Kagera	44 kWp / 90 kWh	442	Kigoma (West TZ)	2019
13	Zambia	Chitandika Village	28 kWp / 96 kWh	169	Chipata, Northern	2019
14	Nigeria	Gbang Gbang Village	90 kWp / 144 kWh	276	Niger Stage	2021
15	Uganda	Lolwe Island	600kW / 350 kWh	3,783	Lake Victoria	2022



## BUSINESS CASE: 600 KWP MINI-GRID ON LOLWE ISLAND UGANDA

This joint project between EEA and Equatorial Power Ltd. is a fully integrated clean energy multi-utility, from electricity to rural service delivery.

- Aligned with a sustainable, green and blue economy.
- A business model centered around productive use of energy.
- Life-changing impact for the local population.
- Most advanced mini-grid in Africa that sets a new benchmark for the future of energy access on the continent.

The Lolwe project is a truly scalable model – matching green infrastructure and ICT innovation for delivery of real impact - the beginning of a “mini-grid 2.0” model that delivers more for investors and communities alike and is a significant milestone and benchmark for the energy access space.



## KEY FACTS & FIGURES

**Site Name:** Lolwe island, Namayingo District

### NUMBER OF INHABITANTS:

**15,000**

Connections:

**757**

Businesses

**3026**

Households



### CAPACITY INSTALLED:

(funded by ENGIE Equatorial, installed by SagemCom):

**600 KW**

PV



**360 KWH**

Battery storage



**150 KW**



### DISTRIBUTION NETWORK:

Funded by REA

### LAST MILE PART:

Funded by REA, installed by Equatorial Power

### PRODUCTIVE HUB:

Producing services and funded and operated by ENGIE Equatorial

### COD:

October 2021

# 08 NAVIGATING GROWTH





## NAVIGATING GROWTH: WHOLESALE STRATEGIES AND THE PAYGO ECOSYSTEM

Within our wholesale operations, we partner with Authorized Distributors in regions extending beyond our 9 subsidiary locations. This collaboration ensures the smooth importation and distribution of our products in these areas.

In addition to our wholesale activities, we actively aid our trusted Authorized Distributors in securing additional capital for their inventory financing and day-to-day operations. This assistance takes various forms, including local bank loans, grants, and capital generated through special purpose vehicles in partnership with Development Financing Institutions.

These fruitful partnerships operate across numerous countries. Our key wholesale countries include Gabon, Malawi, Ethiopia, and Chad. Additionally, we are expanding our B2B footprint to include new countries such as Angola, Liberia, Namibia, and Niger. This expansion underscores our dedication to empowering local distributors and promoting sustainable business growth.

Noteworthy among these partnerships are Gabon Energies & Solutions, SOL! Group in Chad, and Recapo Solar Systems in Malawi.

## BENEFITS FOR OUR PARTNERS



### RENEWABLE ENERGY COMPANIES

- Introduction of field-tested PAYGO products in offerings
- Increase and diversify product portfolios



### LOCAL FINANCIAL INSTITUTIONS & COOPERATIVES

- Diversifying to new loan products by offering solar loans to end customers.



### ENTREPRENEURS / OTHERS

- New business opportunity; Business creation or expansion
- Proven business model.
- Complete and high-quality product offering.



### MOBILE NETWORK OPERATORS

- Additional revenue stream from product sales.
- Revenue collected from PAYGo payments through Mobile Money.



### GAS STATIONS

- Additional revenue stream by offering lanterns.
- Products sold on cash basis.



### SATELLITE TV OPERATIONS

- Expansion of the PAY-TV market coverage.
- Option of a co-branding if MOQ is met.



### ELECTRONIC DEVICES IMPORTERS

- Additional revenue stream.



### OTHERS

We are always open to exciting new partnerships, including start-ups and more. Don't hesitate to contact us if you are confident of a strong match.



**GEORGE MUDHUNE**  
HEAD OF WHOLESALE & PARTNERSHIPS  
ENGIE ENERGY ACCESS



Our high-quality product offer is integrated with the latest Pay-As-You-Go (PAYGo) technology, enabling our customers and distribution partners to enjoy the benefits of clean energy and to access a growing portfolio of energy-efficient appliances.



# PAYGEE: REDEFINING EFFICIENCY IN PAYGO OPERATIONS

Paygee, our proprietary software suite, empowers entrepreneurs to launch and operate PAYGo businesses globally.

This in-house developed tool provides comprehensive insights into customer behavior, ensuring precise monitoring and analysis. Through Paygee, entrepreneurs can initiate PAYGo enterprises and efficiently deliver various products to remote areas worldwide.

With over 12 years of expertise in managing PAYGo portfolios, we currently serve more than 65 satisfied business clients across 36 countries. Leveraging Paygee, our customers distribute PAYGo products in underserved markets, making it the world's most powerful software solution for their global operations.



## 12

Years Experience



## 65+

Business Clients



## 2.6M

Devices Managed



## 36+

Countries

## OUR PARTNERS INCLUDE





# 09 PROMOTING SUSTAINABLE AND RESPONSIBLE FINANCE







**As a private investor committed to implementing last-mile solutions and firmly believing in the viability of this economic model, as well as recognizing the pivotal role off-grid energy will play in the global energy transition, we face several challenges that hinder more substantial investments. Nevertheless, these challenges have also given room for exploring innovative financing methods and risk mitigation strategies to establish a sustainable economy.**

Funding will have to come from blended sources and supported by credit enhancement instruments. We need a combination of impact lending, subsidies and grants as well as commercial debt to reach the amount of funding needed to realize the energy transition and SDG7 in Africa.

We have tested a number of alternative financial approaches which are new in the market and which we believe could incentivize private sector investment drastically and meet some of the challenges mentioned above.

Financial instruments such as project financing, corporate debt facility (aggregating our whole portfolio), bridge loans (to cover the subsidy payments), political risk insurances, hedging instruments, result-based financing (RBF), challenge Funds / catalytic grants, carbon credit financing, renewable energy certificates, can definitely contribute to unlock private capital in our markets and support the fundamental mission of closing the energy access gap





## ENERGY FINANCING IN AFRICA THROUGH VOLUNTARY CARBON MARKETS

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EEA and ENGIE Global Energy Management & Sales (GEMS) have partnered with CarbonClear in an agreement to accelerate the use of climate finance by the off-grid sector in sub-Saharan Africa through issuing and selling data-driven and impactful carbon credits.

CarbonClear is using its digital model to certify the carbon offset generated from the solar kits distributed by EEA to rural and off-grid communities. ENGIE GEMS is selling these credits to climate-conscious organizations wanting to offset their greenhouse gas emissions with projects that have a high social and environmental impact. The partnership targets to issue 500.000 tCO<sub>2</sub>e of offsets.

CarbonClear's tech-powered value chain reduces the project-to-issuance timeline from 3 years to 3 months and cuts auditing costs to a minimum, without compromising the robustness and integrity of the verification. The implementation of the model engages a sector that currently does not have access to the carbon market and addresses the financing gap that is needed to attain universal electricity access by 2030. Today, the model is fully operational and has become the leading carbon credit solution for the solar off-grid sector





DEVELOPMENT  
BANK OF RWANDA  
www.brd.rw



## **SIGNATURE OF A NON-RECOURSE DEBT FACILITY FOR MINI-GRID DEVELOPMENT IN ZAMBIA WITH AN IMPACT LENDER:**

We signed this ground-breaking transaction in the mini-grids sector with Facility for Energy Inclusion, managed by Cygnum Capital, to provide USD 7.5 million of non-recourse debt, to construct 60 mini-grids connecting over 40,000 people to electricity in Zambia. This non-recourse long-term financing with a maturity of 10 years is unique in the mini-grid sector which usually struggles to secure financing.

The successful procurement of non-recourse, long-term debt financing for mini-grid projects serves as undeniable evidence supporting the feasibility of the business model and affirming the legitimacy of renewable mini-grid initiatives within the rural electrification domain.

## **POWERING PROGRESS IN RWANDA: THE IMPACT OF END-USER SUBSIDIES**

As of 2021, nearly 61% of rural Rwandans lacked access to electricity, according to the World Bank. Responding to this challenge, the Rwandan government partnered with the European Union to establish a subsidy program in 2021, with the goal of rapidly increasing electricity accessibility across the country. The implementation of this initiative was entrusted to the Banque Rwandaise de Développement (BRD).

For two consecutive years, EEA Rwanda has been selected to collaborate closely with the government in realizing its objective of enhancing energy accessibility. EEA Rwanda's contribution has been pivotal, as the organization facilitated the distribution of solar home kits, supported by the subsidy. This subsidy effectively removed the financial barriers hindering the acquisition of solar products, addressing the limited purchasing power of the rural Rwandan population. On average, it covered approximately 80% of the total purchase price of these solar kits.

To date, EEA Rwanda has successfully distributed nearly 60,000 solar kits, ranging from 10W to 20W. These distributions have had a significant impact, positively affecting the lives of almost 300,000 individuals across various regions.

Looking ahead, we believe it is crucial for the government to extend its support to the private sector's efforts in Research and Development (R&D). By encouraging innovation in products that offer greater value to consumers, such as Large Solar Home Systems (LSHS) and products for productive energy use, the government can foster sustainable commercial activities. This approach aims to reduce the dependence on subsidies in the long run, making the distribution of solar kits more self-reliant and enduring.





# 10 ZOOM ON COMMUNITY DEVELOPMENT PROJECTS







**Giving back to communities is a fundamental requirement and a good way to connect with the local population. It can save lives and our people feel they are really making a difference. The projects below are a selection of some of the initiatives our countries of operation engage in - including employee volunteering programs, partnerships, and community impact projects.**



#### **BENIN | Solarkits for Maternity: Improving the Conditions of a Rural Health Center**

The health center in the village of Lama includes a maternity ward, which has not been electrified since commissioning. Night deliveries have partly been carried out without any lighting available – just on reliance of simple mobile phone torches. Our team in Benin has provided the health center with solar kits for autonomous lighting to ensure the health care can be provided in optimal conditions at all hours of the night. This initiative is part of our commitment to support the development of rural communities in Benin and contributes to the United Nations Sustainable Development Goals.

#### **NIGERIA | Together we grow**

ENGIE Energy Access Nigeria introduced the 'Going Green' initiative, aiming to enhance understanding of the advantages of a green and clean environment for both people and the ecosystem. This campaign was officially launched in collaboration with Goshen International School in Ikorodu, Lagos State. ENGIE Energy Access Nigeria employees and students from the school participated in a roadshow, with the goal of promoting awareness about the importance of green energy.



#### **MOZAMBIQUE | A Collaborative Effort for a Brighter Future**

As part of our mission to create a positive and lasting impact in the communities where we operate, we have donated solar kits to Musserepa Healthcare Center in Niassa province, Mozambique. The solar kits, which were delivered by our ENGIE Energy Access Mozambique team, will provide reliable and clean lighting for the healthcare center, allowing it to offer better

services to patients during the night. This initiative is a result of the collaboration between ENGIE Energy Access Mozambique, SNV/BRILHO, National Energy Fund (FUNAE) and Vodacom Moçambique, who share the vision of improving access to quality healthcare and renewable energy in rural areas.

### **TANZANIA | Celebrating Women's Day with Light and Care**

As part of International Women's day celebration, our team in Tanzania donated 200 lights and Tube lights to the Zahanati ya Arkaria Maternity Healthcare Centre in Arusha. This health centre had no access to electricity before our intervention. We also provided free baby supplies and other items to new mothers at the centre. It reflects our commitment of delivering affordable renewable energy to off-grid communities in Tanzania and supporting the well-being of people in our host communities, especially women.



### **RWANDA | Bringing Light and Education to Survivor Homes**

In an effort to promote equality and education, EEA Rwanda selected five survivor families deeply affected by the aftermath of the genocide. These families face immense challenges, struggling to lead a decent life primarily due to their limited income and the traumatic experiences they endured during the genocide. In our commitment to giving back to the community and enhancing the lives of Rwandan society, we have provided these families with solar TV systems.

This not only contributes to the enhancement of their lives but also plays a crucial role in facilitating education. It offers a means for their children and family members to access information, thereby significantly improving their educational opportunities and overall quality of life.

### **KENYA | Women Empowering Women**

Our women sales agents are ready to travel kilometers by foot and public transport every day of the week to bring green energy and life-empowering products to hard-to-reach areas. This allows them to have a stable income to support their families with the commissions earned.

Recruiting women as sales agents is a key focus at ENGIE Energy Access, and conducting door-to-door tours exclusively led by women enables us to connect with customer segments that play a significant economic and social role in Sub-Saharan Africa.



### **ZAMBIA | Education for Every Girl: Overcoming Challenges of School Drop-out in Sub-Saharan Africa**

Since 2021, our Zambia team has remained dedicated to providing crucial assistance to Mukamambo Secondary School. The support includes essential educational resources, including textbooks, school supplies, and MySol 120W 43" TV kits. This year, we broadened our support by donating supplies of sanitary towels to the pupils.

Mukamambo Secondary School is one of the numerous girls' schools situated in rural Zambia. A significant portion of the students comes from families unable to afford sanitary towels regularly. This financial constraint often forces these students

to miss classes, leading to academic setbacks and, in some cases, dropping out of school. Our initiative aimed to combat Period Poverty, an escalating challenge in Zambia.

This donation aligns with Zambia's ongoing efforts to eliminate Period Poverty, addressing the lack of access to menstrual products. By contributing sanitary towels, we directly supported several Sustainable Development Goals, including SDG 1 (no poverty), SDG 3 (good health and well-being), SDG 4 (quality education), SDG 5 (gender equality), and SDG 6 (clean water and sanitation).

Our team in Zambia will continue partnering with the government in its mission to ensure that every girl child has the opportunity to attend school without facing barriers related to menstruation.





### UGANDA | Teaching Tomorrow

ENGIE Energy Access Uganda held its first environmental awareness session at Sentema Catholic Primary School. During the event, 450 children actively participated, learning about initiatives that will make their village safer, cleaner, and more pleasant to live in. The session focused on sharing insights about the societal and environmental advantages of using clean solar power devices. One of these initiatives is the MySol Super Villages Competition, which fosters community education and engagement but also contributes to the company's market growth making our business economically sustainable.



# ABOUT THE ENGIE GROUP





# ABOUT THE ENGIE GROUP

**A world leader in low-carbon energy supply and related services, ENGIE – with the support of its stakeholders – is working to accelerate the transition to a carbon-neutral world and develop a diversified energy mix in which the share of renewable energy is expected to grow significantly.**

Guided by its purpose, which is enshrined in its bylaws, the Group assists its customers with decarbonization through more energy-efficient, cleaner solutions which it designs and implements.

Operating in 31 countries, ENGIE relies on a streamlined business model that seeks to achieve the energy transition with confidence through its four core businesses: renewable energy, local energy networks, centralized networks, thermal generation, and energy supply.

## 2022 Key Figures



**96,400**  
employees



**29.9%**  
of women in  
management



**31**  
countries

**€93.9 bn**  
in revenues

**€9 bn**  
in EBIT

**€5.5 bn**  
in growth investments

**No. 1**  
in natural gas distribution  
in Europe

**No. 2**  
in natural gas  
transmission in Europe

**No. 1**  
worldwide in urban  
cooling networks

**No. 3**  
worldwide in urban  
heating networks



**60 Mt**  
of greenhouse gas  
emissions (scopes 1 & 3)  
from energy production



**38%**  
renewable energy  
in electricity  
production capacity



**No. 1**  
in wind and solar  
in France

# ADDENDUM



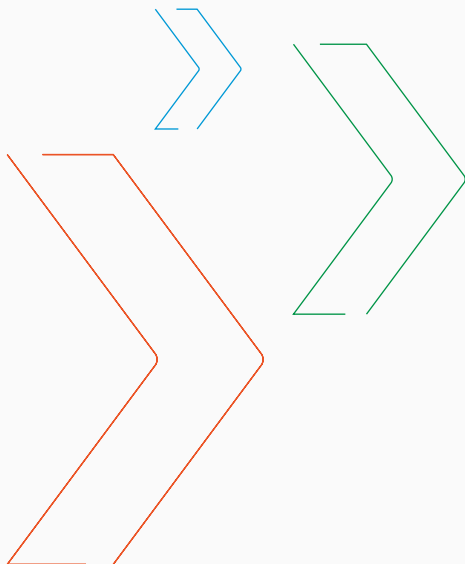


# ENGAGING WITH OUR STAKEHOLDERS AND PARTNERS TO MAKE PROGRESS

Collaborative efforts amplify our impact, speed up sustainable solutions and foster local empowerment. By actively involving communities, governments, and organizations, we create a shared vision for progress. Engaging with stakeholders ensures that our initiatives align with the needs of the people we aim to serve, leading to more effective, inclusive, and impactful off-grid solar energy projects.



We would like to thank our partners who have been instrumental in accelerating our efforts to bring sustainable and economically viable green energy access to our last-mile customers in Sub-Saharan Africa.



# CELEBRATING OUR AWARDS IN BRIDGING ENERGY ACCESS ACROSS SUB-SAHARAN AFRICA



## **SOLAR IMPULSE FOUNDATION LABEL**

Our mini-grid business was attributed the “Solar Impulse Efficient Solution” Label following an assessment performed by external independent experts and based on verified standards. It means we remain part of the #1000solutions challenge,

an initiative by the Solar Impulse Foundation to select solutions that meet high standards in sustainability. The aim of the Foundation is to encourage the adoption of more ambitious environmental targets and fast-track the implementation of these solutions on a large scale.



## **MINI-GRID OF THE YEAR**

We have been awarded AFSIA (Africa Solar Industry Association) ‘Mini-grid of the Year 2021’ for the ENGIE Equatorial hybrid mini-grid project on Uganda’s Lolwe Island. This partnership with Equatorial Power Ltd. will provide the remote community on Lolwe island with clean energy to empower their prosperity through productive use, impacting 15,000 lives.



## **ENERGY LEADER OF THE YEAR**

At the occasion of the 23rd Energy Institute Awards of the Year, Mukabanji Mutanuka, Head of Business Development Mini-grids Southern Africa was recognized and highly commended for the Energy Leader award of the year. The Energy Institute Awards is a prestigious event that recognizes innovations and technologies that are revolutionizing the energy sector across the globe.



### **TRANSACTION OF THE YEAR**

ENGIE Energy Access Nigeria's \$60 million project finance agreement with CrossBoundary Energy Access (CBEA) won the Transaction of the Year (Renewable Energy/ Off-Grid) award at the 2022 Nigeria Power Sector Awards. The award acknowledged our efforts to deploy innovative solutions to solve the problems of low access to electric power in unserved and underserved communities in Nigeria.



### **SHS COMPANY OF THE YEAR**

A panel of professionals from various sectors within the African solar industry honored EEA with the prestigious AFSIA (Africa Solar Industry Association) award for "Solar Home System Company of the Year." This recognition celebrates EEA's innovative approach in creating the MySol product range, "Best Solar Best Life" spanning across nine different markets within a short span of less than two years. MySol is the result of a collaboration between two entities in the off-grid sector, Fenix International and Mobisol, and the extensive knowledge and resources of a global energy company, ENGIE.

# ABBREVIATIONS

<b>BOO:</b> Build, Own, Operate	<b>LSR:</b> Life-Saving Rules
<b>CAGR:</b> Compound Annual Growth Rate	<b>MG:</b> Mini-Grids
<b>C&amp;I:</b> Commercial and Industrial	<b>MNO:</b> Mobile Network Operator
<b>CF:</b> Customer Finance	<b>MSV:</b> Management Safety Visit
<b>CM:</b> Contract Manufacturer	<b>MTN:</b> Mobile Telephone Networks
<b>COD:</b> Commercial Operation Date	<b>NPS:</b> Net Promoter Score
<b>CP:</b> Consumer Protection	<b>OPEX:</b> Operational Expenses
<b>CSAT:</b> Customer Satisfaction	<b>PABX:</b> Private Automatic Branch Exchange
<b>CSI:</b> Customer Satisfaction Index	<b>PBX :</b> Private Branch Exchange
<b>CSR:</b> Corporate Social Responsibility	<b>PAYGo:</b> Pay-As-You-Go
<b>CSW:</b> Customer Service Week	<b>PCB:</b> Printed Circuit Board
<b>CX:</b> Customer experience	<b>P :</b> Probability of Default
<b>EAD:</b> Exposure at Default	<b>POS:</b> Point of sale
<b>EEA:</b> ENGIE Energy Access	<b>PPAP:</b> Production Part Approval Process
<b>EL:</b> Expected Loss	<b>PUE:</b> Productive Use of Energy
<b>EPC:</b> Engineering, procurement and construction	<b>R&amp;D:</b> Research & Development
<b>ESG:</b> Environmental, Social, and Governance	<b>RBF:</b> Results Based Financing
<b>EVP:</b> Employee Value Proposition	<b>S &amp; OP:</b> Sales and Operations Planning
<b>GSM:</b> Global System for Mobile	<b>SDG:</b> Sustainable Development Goals
<b>HLM:</b> Historic Loss Matrixed	<b>SHS:</b> Solar Home Systems
<b>IDR:</b> Implied Default Rate	<b>SLA:</b> Service Level Agreement
<b>IGA:</b> Income Generating Activities	<b>SOP:</b> Standard Operating Procedure
<b>IVR:</b> Interactive Voice Response	<b>SSA:</b> subSaharan Africa
<b>kWh:</b> Kilowatt hour	<b>TSA:</b> Transition Service Agreement
<b>kWp:</b> Kilowatt peak	<b>USSD:</b> Unstructured Supplementary Service Data
<b>KYC:</b> Know Your Customer	<b>VPN:</b> Virtual Private Network
<b>LGD:</b> Loss-Given Default	<b>WFH:</b> Work from Home
<b>LMRA:</b> Last-Minute Risk Assessments	<b>YoY:</b> Year-on-Year



# ABOUT THIS REPORT

ENGIE Energy Access **2023 Performance & Impact Review** is the 1st impact report issued by ENGIE Energy Access. ENGIE Energy Access is part of the ENGIE Group, a global reference in low-carbon energy and services.

ENGIE Energy Access is committed to communicate its activities through an annual Report, demonstrating its business processes that are geared towards Efficiency, ensuring Financial long-term Growth and Social Development Support.

The Report covers the period from January 1, 2022 to September 30, 2023.

The **2023 Performance & Impact Review** was published in November 2023.

## SCOPE

The Report covers the corporate governance, sustainability approach, priorities, activities, performance, and achievements of our operations and covers the geographical scope of our nine countries of operation: Benin, Côte d'Ivoire, Kenya, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, and Zambia as well as our B-to-B business.

The Report does not include the activities or performance of our suppliers, contractors, or partners, unless otherwise stated.

## REPORT CONTENT

In the **Performance & Impact Review**, we focus on key aspects crucial to our business and stakeholders. We are refining our strategy to tackle our most significant concerns and foster sustainable expansion. Our decision-making process is cautious, particularly when fulfilling our obligations related to economic and social impacts and risks. We adopt a proactive stance in managing risks associated with climate change and the environmental and social consequences of our operations throughout our value chain.

## EXTERNAL VALIDATION

We did not engage in independent assurance for our Performance & Impact Review. The report's content is, to the best of our knowledge and abilities, accurate and precise. We continuously invest in our systems, policies, procedures, risk management, and strategy to capture information more comprehensively and accurately. This enables us to enhance our sustainability, performance, and impact reporting further.

# MORE INFORMATION ON ENGIE



[2022 Management report and Annual Consolidated Financial Statements](#)



[Universal Registration Document 2022](#)



[Policies and procedures](#)

For any feedback or questions, you can reach us on: [info.eea@engie.com](mailto:info.eea@engie.com)

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