GLOBAL PLATFORM FOR ACTION

Hosted at: UNOPS

Roundtable: Electrification for Economic Development in Displacement Hosting Regions

24 April 2026

The GPA Secretariat is advised by:

Co-funded by:

Co-funded by European Union Humanitarian Aid

IKEA Foundation

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Transforming Energy Access

Welcome

Aimee Jenks, Programme Lead, GPA Secretariat

Why we're here

SCALING UP GOOD PRACTICE: Inclusion of displaced communities & fragile contexts into global electrification efforts.

- 0:10: Short Framing and Introductions – GPA, UNHCR, Amahoro Coalition
- 0:30: Investment Need Pitches
  - Renewvia – Large-scale electrification in Kakuma/Kalobeyei
  - Humenergi – Electrification in Uganda & Ethiopia through PPP approach
- 0:05: Reflection from Ecosystem actors – RIF
- 0:45: Roundtable discussion

Why we're here

Mission 300 vs. ***Missing 300***

- *40 million FDPs lack access to electricity*
- *50 million lack access to clean cooking*
- *11000 diesel generators at 100m USD/year*

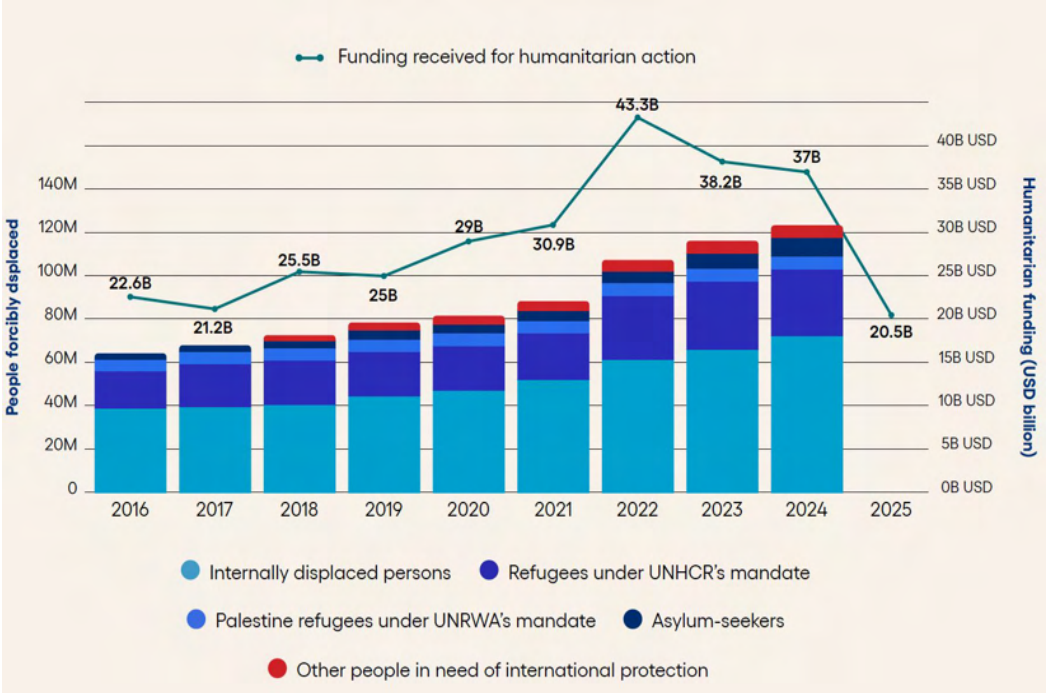
Context challenges:

- *Fragility and displacement rising*
- *Humanitarian and development funding declining*
- *Protracted crises becoming the norm (96% of funding appeals in 2025)*

Energy access enabling economies → transitioning away from aid reliance to PPPs

Humanitarian Agencies Shift in Roles

- *Conveners*
- *Advisors*
- *Enablers*
- *Implementers (when necessary)*



Acumen (2026) From the Margins to the Market: Lessons on investing in displacement-affected communities

Global Platform for Action: Sustainable Energy in Fragile & Displacement Settings

GLOBAL PLATFORM FOR ACTION

Our Goal: Communities affected by displacement and conflict have affordable, reliable, sustainable energy access

GPA Secretariat

Systemic Orchestration | Effective Knowledge | Resource Mobilisation | Strategic Influence

Co-funded by:

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Transforming Energy Access

NORCAP

The GPA Secretariat is advised by:

UNHCR The UN Refugee Agency

IOM UN MIGRATION

World Food Programme

Clean Cooking Alliance

UN environment programme

Practical Action

Mercy Corps

UNDP

SNV

UKaid MECS

giz

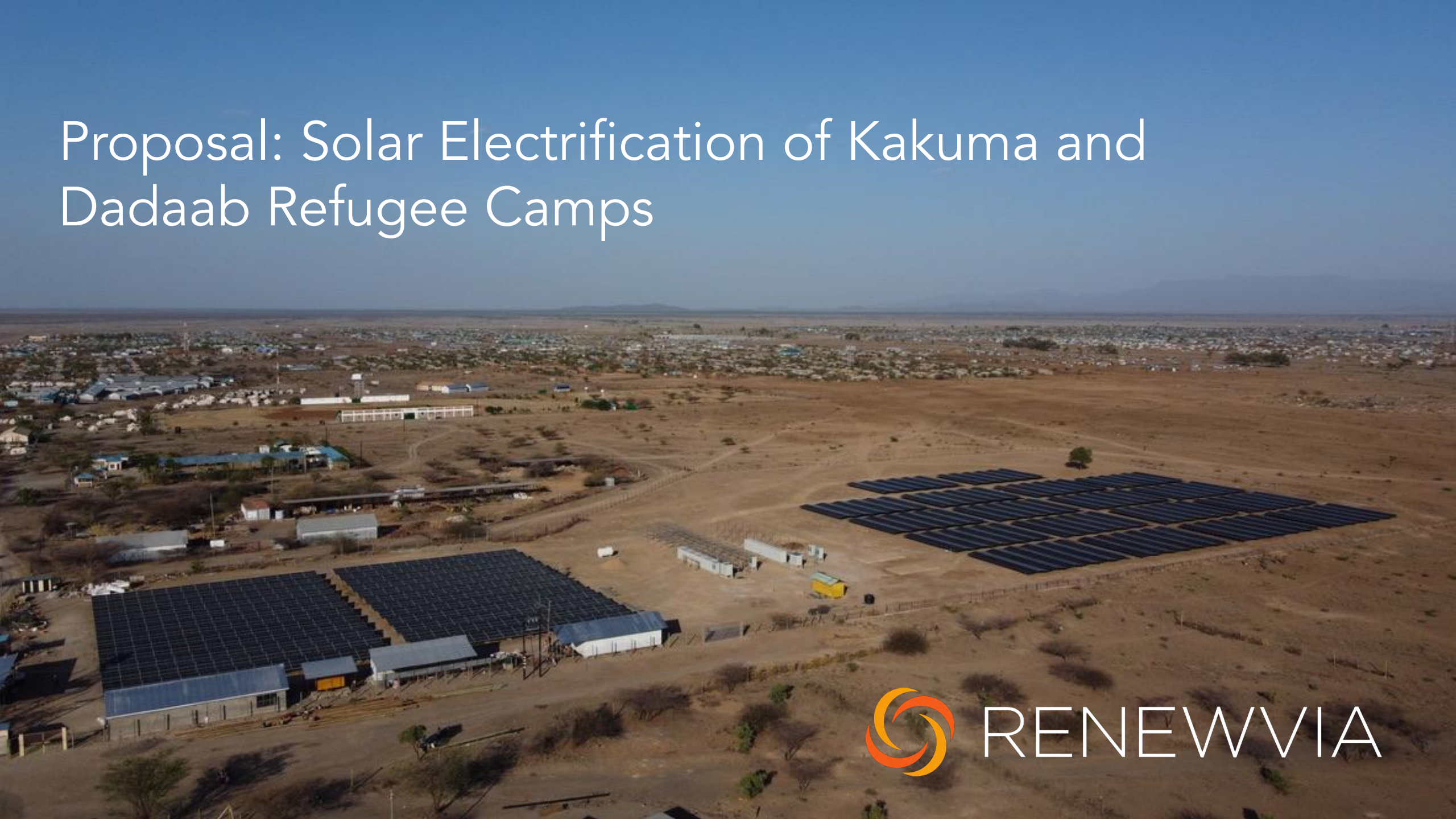
Introductions

Introduce yourself, your organisation, and interest in the topic

Renewvia

Douglas Cox, Renewvia, Director of African Project Development

Proposal: Solar Electrification of Kakuma and Dadaab Refugee Camps



RENEWVIA

Summary

We propose to provide clean, reliable and affordable electricity to 89,000 homes and 16,000 businesses in Kakuma and Dadaab Refugee Camps and nearby host communities.

We are seeking $35 million in concessional or blended financing for the expansion of our existing solar minigrid in Kakuma and the construction of a new one in Dadaab.

Introduction to Renewvia


We build solar minigrids in African communities that have no chance of connection to their national grids for decades to come.


The electricity we generate and the overhead power lines we build meet all national grid standards.

Our 2.5 MW system in Kakuma is the largest solar minigrid in Africa

Electricity Payments

With very few exceptions, Renewvia minigrid customers pay for their power on a prepaid basis and using mobile money.

In Kenya, customers pay us with M-Pesa.

paga®

In Nigeria, customers pay us with Paga.

All payments are quickly and automatically processed by our server and sent wirelessly to the customer's meter.

Introduction to Kakuma and Dadaab Refugee Camps

Kakuma Refugee Camp

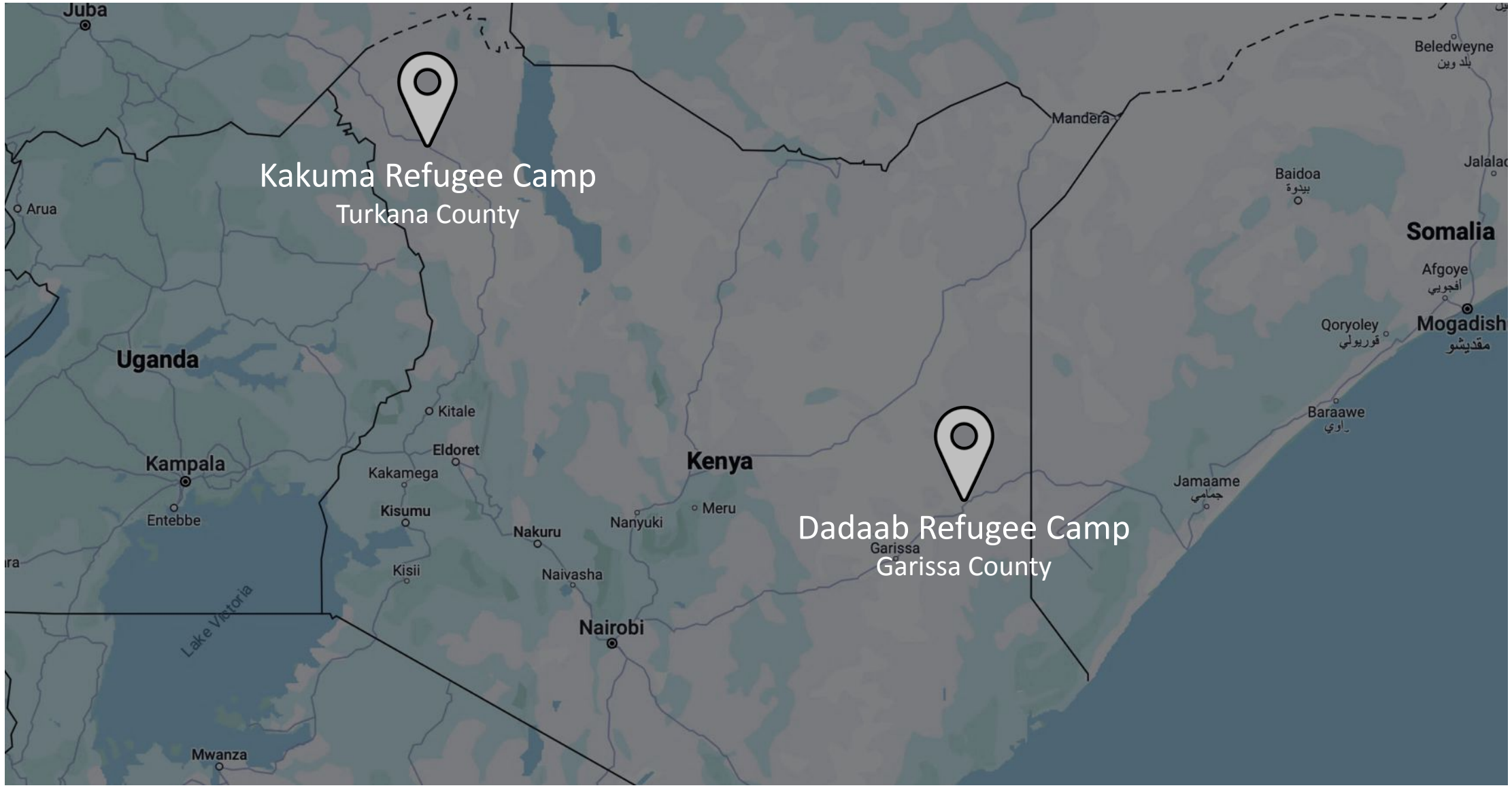
- Started in 1992 as a consolidation of camps existing since the 1960s
- The current population is about 315,000 refugees
- About 60% from South Sudan and most of the remainder from Somalia. There are also significant populations from Burundi, DRC, and Ethiopia.

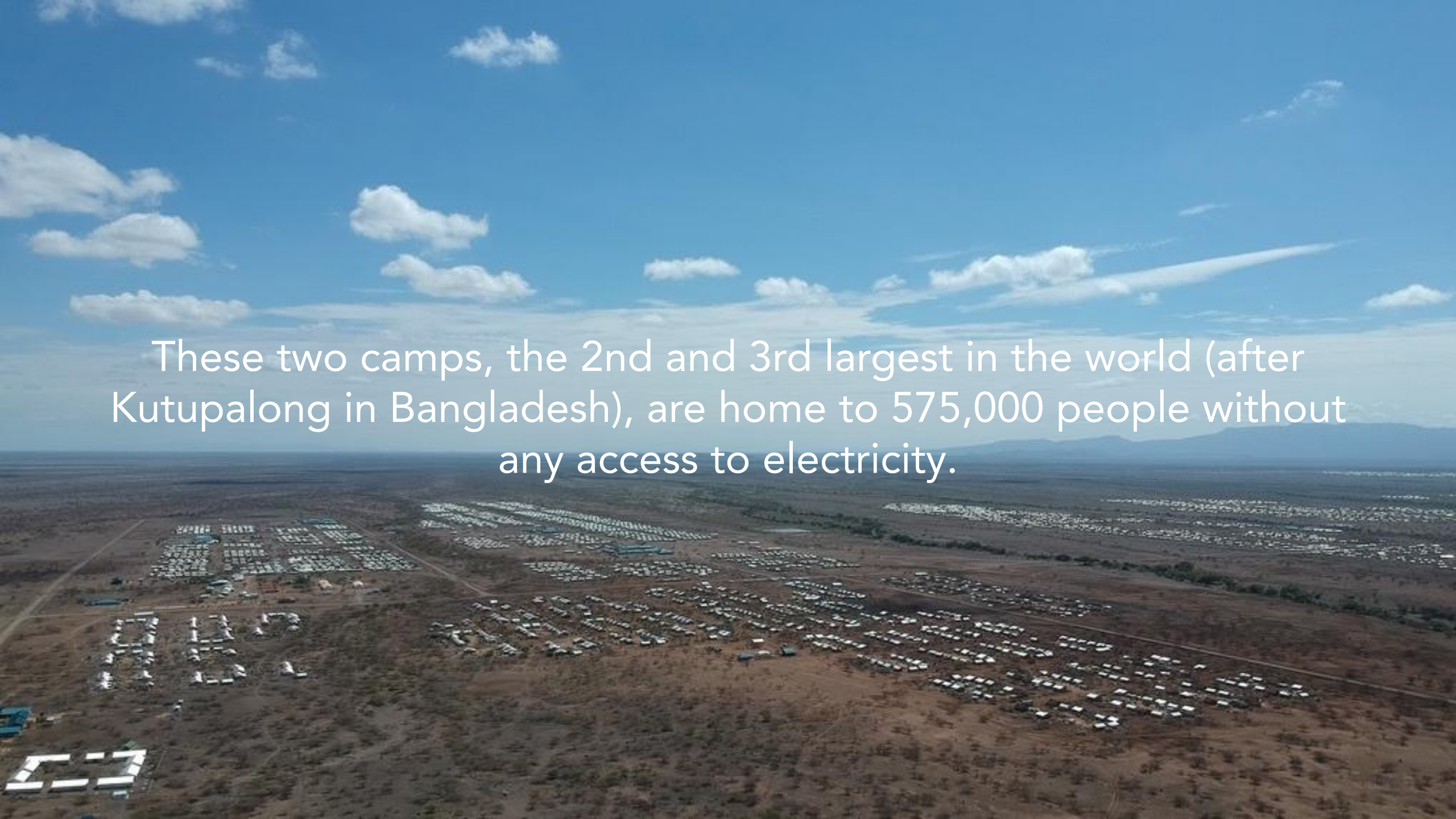
Dadaab Refugee Camp

- Dadaab Refugee Camp was started in 1991 to house refugees fleeing the Somali Civil War after the fall of the Barre government

- Its population has risen and fallen over the decades since but had stabilized at around 233,000 registered inhabitants in recent years. However, severe drought in Somalia has displaced over a million people, and between that and a registration drive in the camp, the population in Dadaab now stands at 415,000.

Locations in Kenya




These two camps, the 2nd and 3rd largest in the world (after Kutupalong in Bangladesh), are home to 575,000 people without any access to electricity.

Renewvia's Minigrids in the Kakuma Area

- In 2019, Renewvia built the first minigrids in the Kakuma area:
  - 60 kW system for Kalobeyei Settlement Village 1, with 500 connections
  - 20 kW system for the nearby host community village of Kalobeyei Town
- In 2022, Renewvia expanded the 60 kW system to 541 kW and added 2300 connections to the power lines.
- Last week, we finished construction on an expansion to 2.5 MW. This will soon provide electricity to about 19,000 connections, or over 100,000 people.

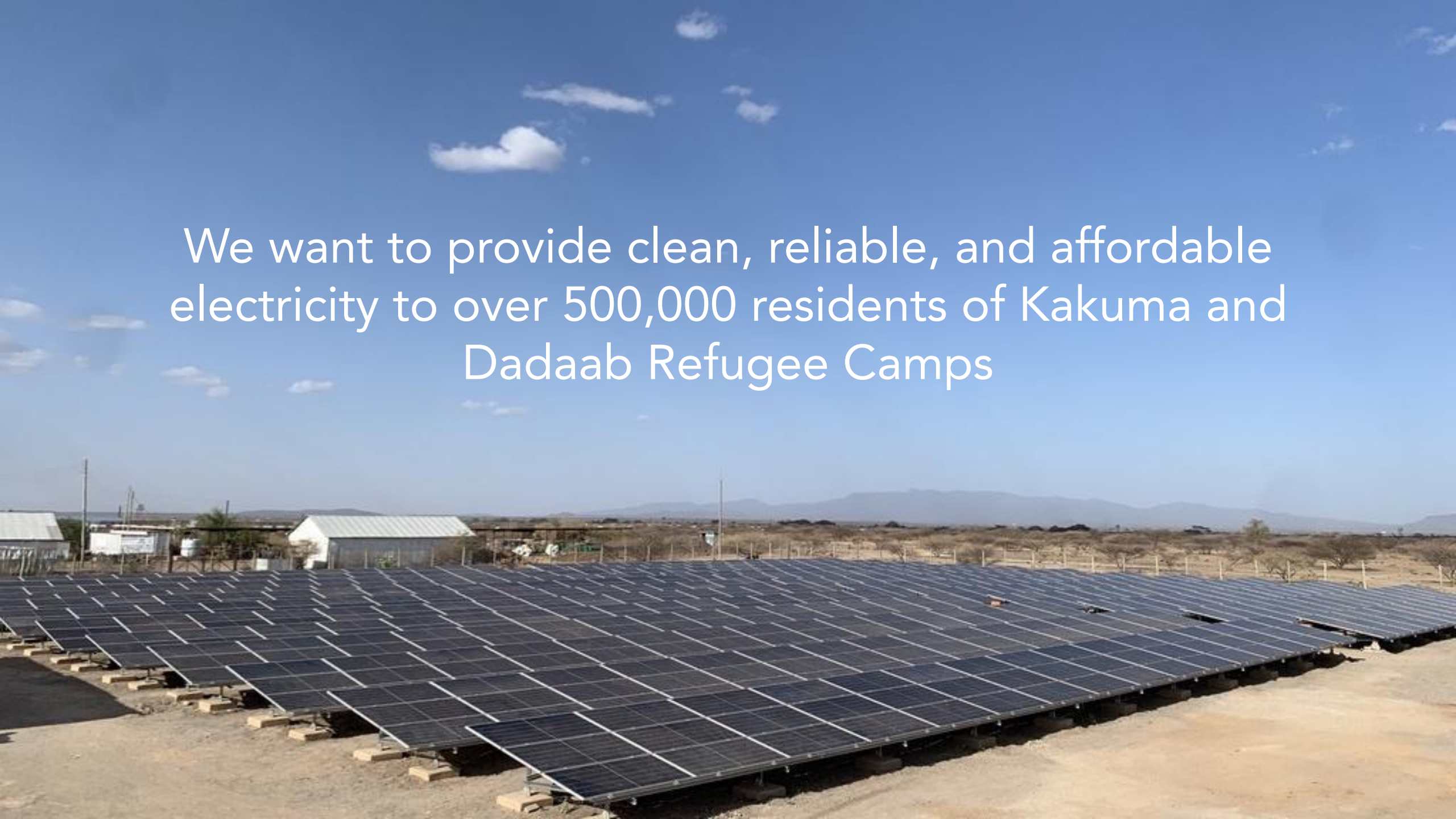
Other Productive Uses of Energy in the Camps

Renewvia's minigrids have significantly encouraged productive and consumptive uses of energy by small businesses in the camps. Our energy is currently powering everything from phone chargers and hair trimmers to carpentry and metalworking shops and an Equity Bank branch.

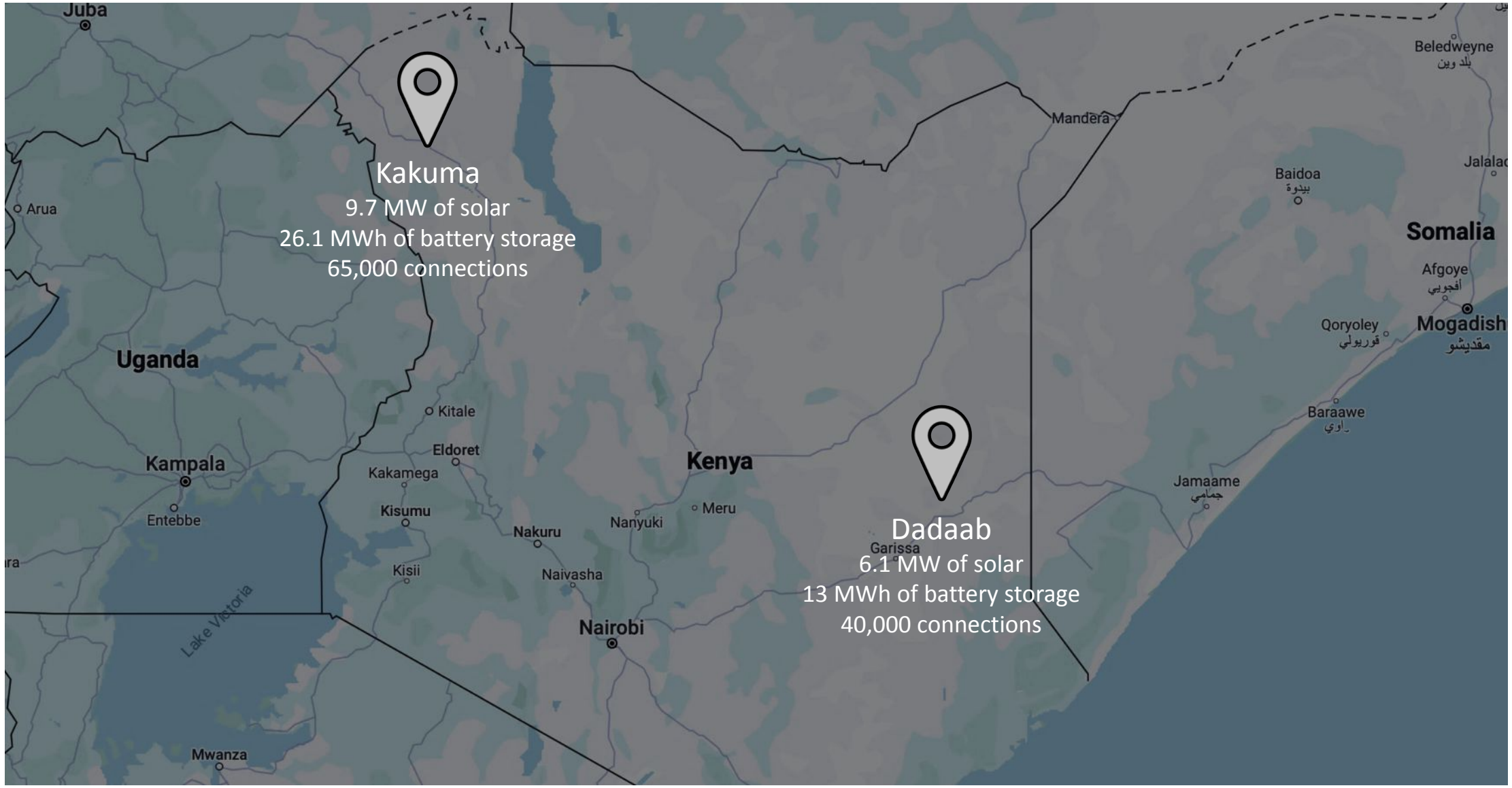
Powering Critical Needs

Beyond the thousands of SMEs, Renewvia's minigrid is the preferred source of power for a variety of critical large-scale infrastructure services in the Kakuma area. We already power multiple schools and telco towers, and in April 2026 we will begin powering four UNHCR boreholes and the largest camp hospital.

Proposal Details


We want to provide clean, reliable, and affordable electricity to over 500,000 residents of Kakuma and Dadaab Refugee Camps

Proposal: Kakuma and Dadaab Solar Minigrids

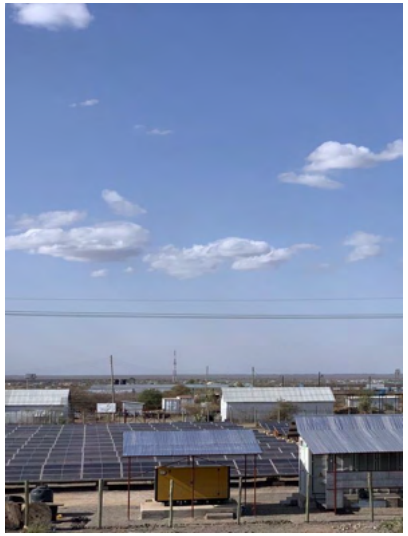


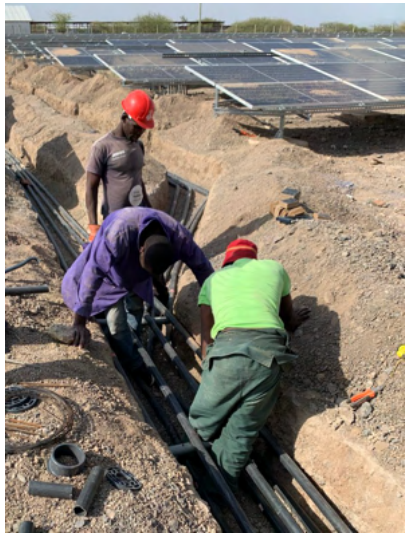
Proposal: Key Figures

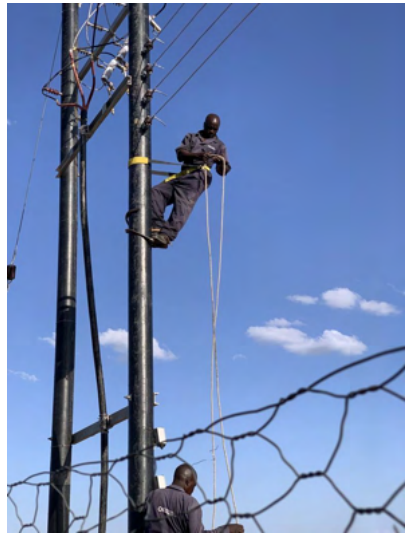
>99%
Energy provided from solar

30-40 Ksh/kWh
Residential Tariff

35-45 Ksh/kWh
Commercial Tariff







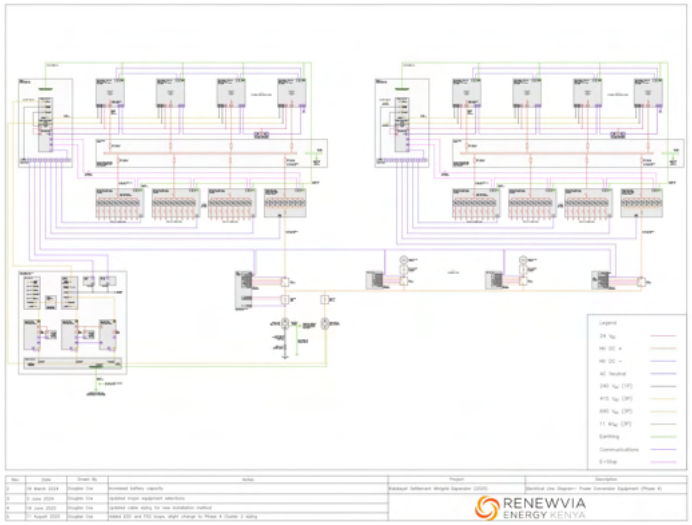
86,000
New Connections

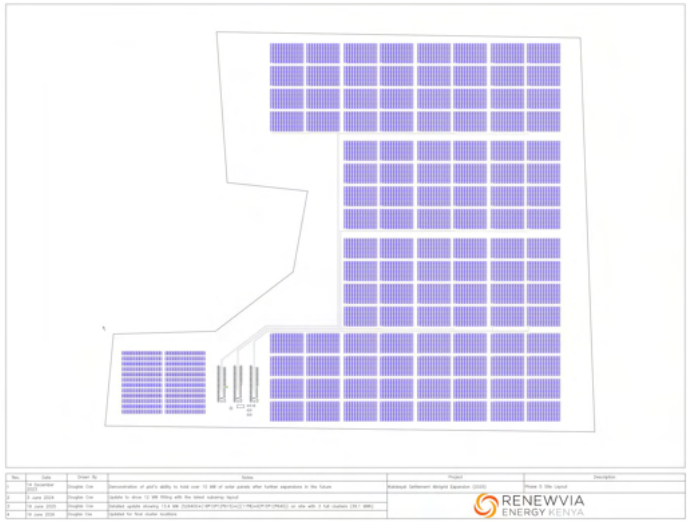
19,000
Existing Connections

105,000
Total Connections

Current Status: Engineering

Detailed electrical designs are complete. Each generation plant will be an extension of the modular design of our 2.5 MW plant in Kakuma, using the same equipment from the same vetted suppliers.





Current Status: Community and Regulatory

Kakuma

- All community, county, and humanitarian organization approvals and agreements signed (and flexible to further expansion)
- Land Lease and Physical Planning Approval signed
- Tariff is approved
- 2.5 MW plant is fully approved. Upgrading licenses to the new larger system size is a simple process.

Dadaab

- All community, county, and humanitarian organization approvals and agreements signed
- Land Lease and Physical Planning Approval signed
- ESIA done, NEMA approval in process
- Tariff and power licenses will follow NEMA

What do we need?

Beyond These Projects

Regional Growth: Refugee Camps

In partnership with UNHCR, we are exploring opportunities in the following specific markets:

- Uganda: With a total refugee population twice Kenya's, 11 camps with a population over 50,000, and a mostly conducive regulatory environment (including some of the most liberal refugee policies in the continent), Uganda presents an enormous opportunity.
- Rwanda: Rwanda is home to 135,000 refugees, and while the regulatory context is more challenging than Uganda's, the government's affinity for innovative service provision in combination with a relatively low rural electrification rate makes serving this population a fantastic addition to our portfolio.
- Ethiopia: While regional security challenges make this a more difficult market than Uganda or Rwanda, we are learning best practices through our involvement in the DREAM project and we would like to extend our work far beyond the 4 large-scale irrigation systems that we will construct. We want to reach Ethiopia's 1.07 million refugees wherever possible, starting with the numerous large camps in Gambella, where 5 of the camps are hosting 360,000 refugees near the South Sudanese border.

Renewvia already has local entities formed in Uganda and Rwanda and is soon forming one in Ethiopia for the DREAM project.

Regional Growth: Congolese Towns

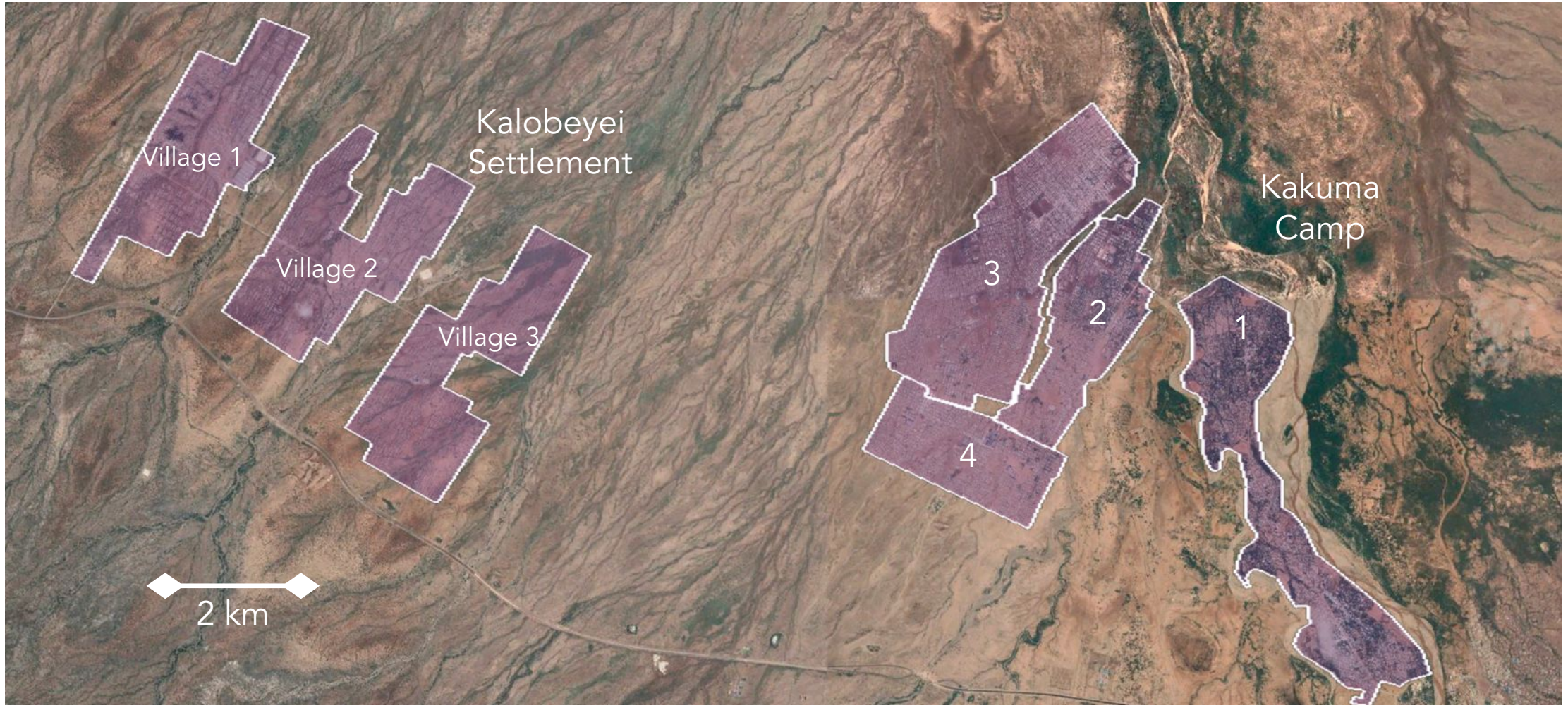
- Renewvia has entered into discussions with the government of **Baraka, a town of 270,000 people** on the shores of Lake Tanganyika in South Kivu, where some of our existing customers in Kenya's Kakuma Refugee Camp are from.
- Baraka, like so many mid-sized cities in DRC, has no access to electricity besides informal generator operators but has enormous economic potential through its large population and advantageous lakeside location.
- We intend for Baraka to be our first target community in DRC and to serve as a launching pad for reaching dozens of towns just like it. Our local entity, **Renewvia Solar Congo**, is fully set up and ready to develop projects.

Regional Growth: Summary

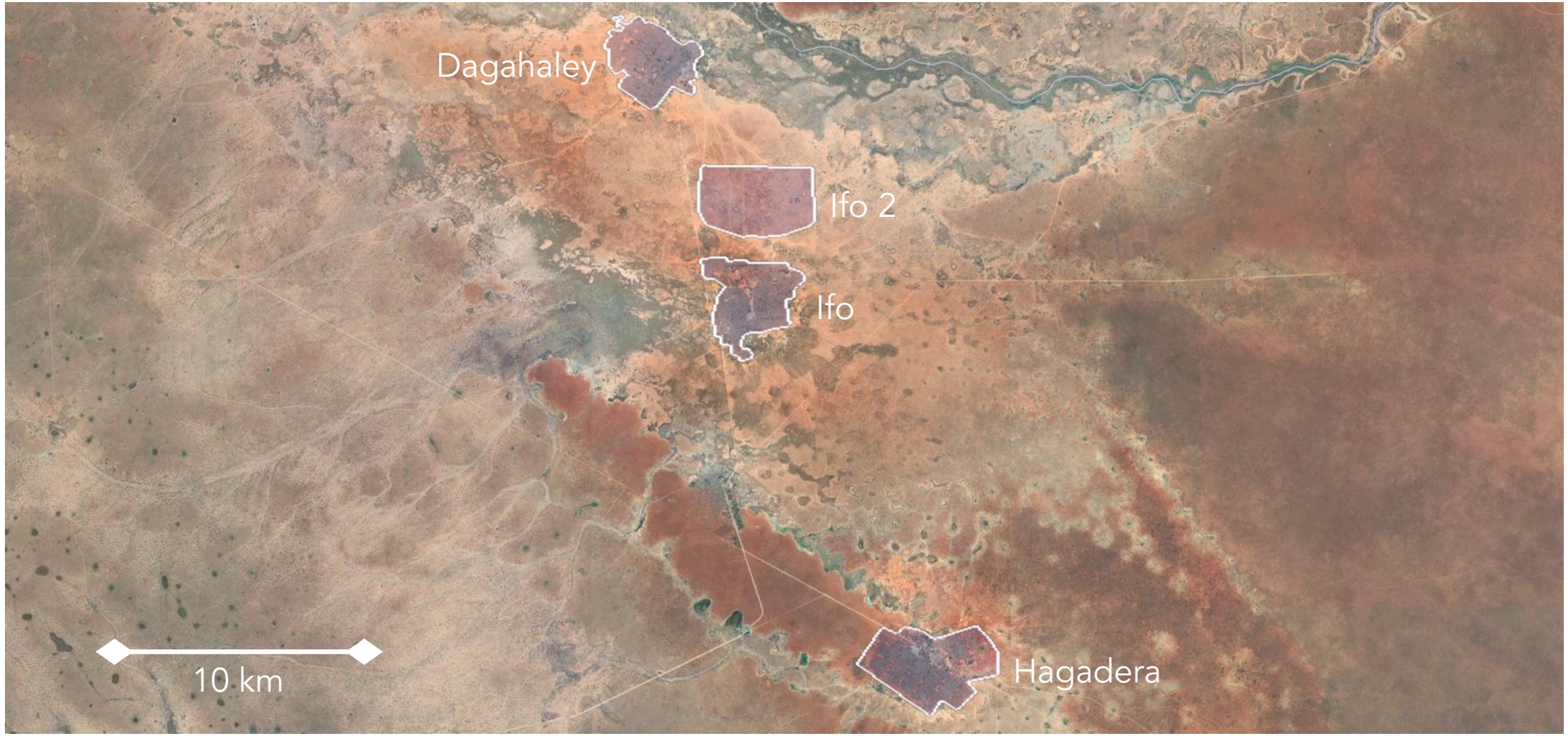
- While the region is currently experiencing a variety of different security situations and regulatory regimes, enormous and immediate opportunities exist to scale our work outside Kenya, replicating the technical solutions while tailoring our approach for the local cultural and regulatory contexts.
- The first priority will be the opportunity with the fewest hurdles: large Ugandan refugee camps. Second will be Rwandan refugee camps and our first target community in the DRC.

These projects represent over 1 million people in large-scale communities, plus 2 million more in smaller ones, connected to electricity for the first time through scaling our proven solutions to countries that we are already familiar with or active in.

Map of Kakuma Refugee Camp



Map of Dadaab Refugee Camp



Enter Energy Ethiopia & Humenergi

Michael Muwonge, Managing Director, Humenergi
Megan Taeuber, THEA Programme Manager, Mercy Corps

Enter Energy Ethiopia

Megan Taeuber, Mercy Corps

Enter Energy - Ethiopia

A commercial energy model in a humanitarian context

- **Ethiopia** hosts a refugee population of over 1.1 million people
- **90%** of electricity demand in displacement settings is unmet
- Fully grant-based delivery models, prevalence of "**built to start, not to last**" interventions
- Max 6h electricity per day
- About half dollar per unit of energy spent in diesel generation

- First commercial mini-grid licensed under the current regulatory framework
- 245kWp system in Sheder refugee camp
- 24/7 reliable electricity for productive and household uses
- 90% of customers say their energy spending has decreased
- Blended financing to meet affordability and enhance sustainability
- **Built to last**: revenues cover operating expenses

Humanitarian Energy Plc

The partnership behind it

Enabled by:

Petroleum & Energy Authority

Structure and partnership

Bridging markets and humanitarian needs

Blended finance

Equity

Concessional debt

Additional revenue

P-RECs

Supply

Humanitarian Energy

Pre-paid electricity

Community ***Businesses***

Demand

Grant

MERCY CORPS

Demand activation through PUE

Our reach to date

In numbers

TODAY'S NETWORK

1,300 refugee households

106 businesses (90+ refugee-led & 16 host communities)

7 social institutions (schools, mosque, health centers)

1 telecom tower

Over 300 host community households and businesses

Pathways to scale

Expanding beyond Sheder

17.200
People reached

Pilot in Sheder

170.000
people to reach

Scale up in Ethiopia
(feasibility studies carried out for 4 additional sites)

260kWp mini-grid in Aw Barre to be commissioned in Q4 2026

Melkadida mini-grid to be commissioned in Q1 – Q2 2027

Additional two sites planned in Dollo Ado region


Thank
you

Humenergi Finance Facility

A blended finance facility for clean energy access in Uganda's displacement settings

HUMENERGI
Humanitarian Energy

The context and market opportunity: Uganda’s refugee settlements

1.8M+	15%	57%	>60%
Refugees in Uganda	Household income spent on energy	Would buy clean energy with flexible finance	Settlements with high energy vulnerability

- Reliance on costly, polluting energy sources causes environmental degradation, poor health outcomes, and limited productivity
- Off-Grid Energy Companies (OGECs) face critical finance gap to scale and reach underserved markets
- Limited access to appropriately structured and accessible capital; grants are sporadic & non-recyclable

Sources: UNHCR Uganda 2025 · Mercy Corps / GDC Reaching the Last Mile, December 2025

Humenergi is a dedicated blended finance facility providing concessional, recyclable capital to energy enterprises serving Uganda's displacement settings.

Humenergi's offer

Interest rate affordable (~10-15%)
Ticket size $25K–$90K (<$500K in future)
No hard collateral required
Displacement context design
Cash-flow-based underwriting
Recyclable / revolving capital

Humenergi's design principles

01 **Flexible, cash-flow aligned lending**

Ticket sizes, tenors, and grace periods calibrated to each borrower type — without hard collateral requirements.

02 **Recyclable, open-ended structure**

Principal repayments reinvested continuously. Target scale USD 10M — the threshold at which portfolio yield covers all fixed costs.

03 **Integrated technical assistance**

Capital paired with enterprise support from THEA, Ashden, and GPA — addressing financial and operational capacity together.

Humenergi's structure is designed to convert catalytic public funding into durable, market-based energy access, progressively reducing dependence on aid.

INPUTS

01

Catalytic finance deployed

Concessional loans reach energy enterprises that commercial banks will not finance, filling the missing middle in displacement energy markets.

OUTPUTS

02

Clean energy reaches settlement communities

Solar, clean cooking, and productive-use technologies delivered through OGECs, last-mile distributors, and refugee-led organisations.

OUTCOMES

03

Capital recycled into new lending

Repayments are reinvested immediately, funding the next cohort of borrowers without additional fundraising or setup costs.

IMPACT

04

Commercial capital begins to follow

Demonstrated repayment performance attracts private sector investment, progressively reducing the need for concessional subsidy.

GDC State of the Sector 2025: 44% of last-mile distributors already operate in displacement or humanitarian settings, demonstrating sector readiness.

Sources: UNHCR Uganda 2025 · Mercy Corps / GDC Reaching the Last Mile, December 2025

The facility uses a blended capital structure to manage risk and attract capital across the risk spectrum.

CATALYTIC GRANT

5%

Pilot deployment and early TA. Absorbs early-stage risk. Initial support provided by UK FCDO via TEA.

REIMBURSABLE GRANTS - JUNIOR TRANCHE

75%

Impact-first concessional capital. Takes first-loss risk and FX volatility. Reimbursable grant structure.

COMMERCIAL DEBT - SENIOR TRANCHE

20%

Commercial tranche. Protected by junior layer. Indicative return ~13%. Open to development finance institutions.

Lending terms by borrower segment

Borrower segment	Pilot ticket	Scale ticket	Tenor	Grace period	Interest rate
Off-grid energy companies (OGECs)	USD 90K	USD 250–500K	12 months	3 months	15%
Last-mile distributors (LMDs) and Refugee-led businesses (RLOs)	USD 25K	USD 40–100K	18 months	6 months	10 - 12%

All figures indicative. Pricing designed to balance borrower accessibility with long-term portfolio sustainability.

Roundtable Discussion

Guiding Questions

- What can we learn from the existing business models presented?
- What type of blended financing options are available?
- What do donors and investors think about these models?
- Opportunities to support?

Thank you!

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