Sustainable Energy, Education, and Connectivity for Nakivale Refugee Settlement
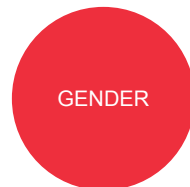
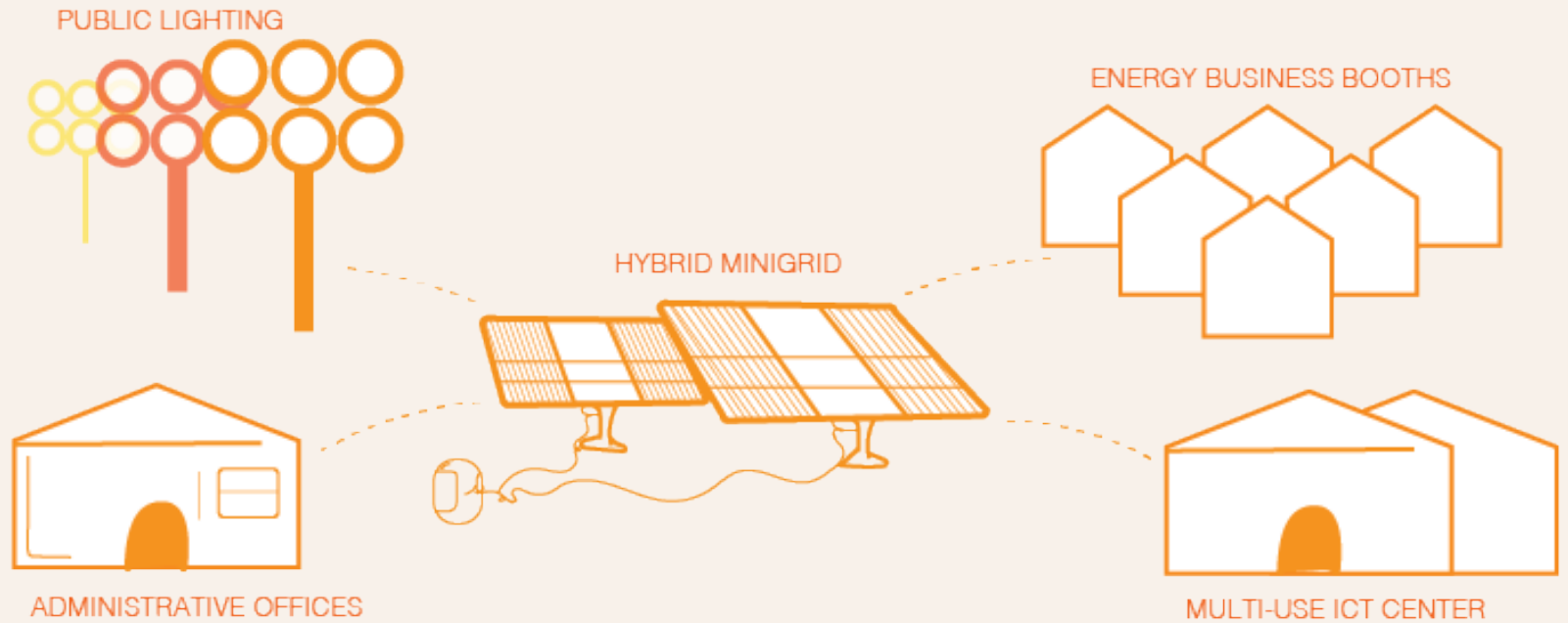# OUR PROPOSED SOLUTION

SCOPE OF THE GRANT

HYBRID MINI-GRID GENERATION (5-10 Kw SOLAR WITH STORAGEP)
ENERGY FOR COMMUNITY NEEDS (ICT CENTER/CYBER CAFE/COMMUNITY CENTER)
ENERGY FOR HOUSEHOLD NEEDS (IMPROVED ENERGY SERVICES AND HH APPLIANCES
THROUGH METERED CHARGING CENTERS)

PHASE II

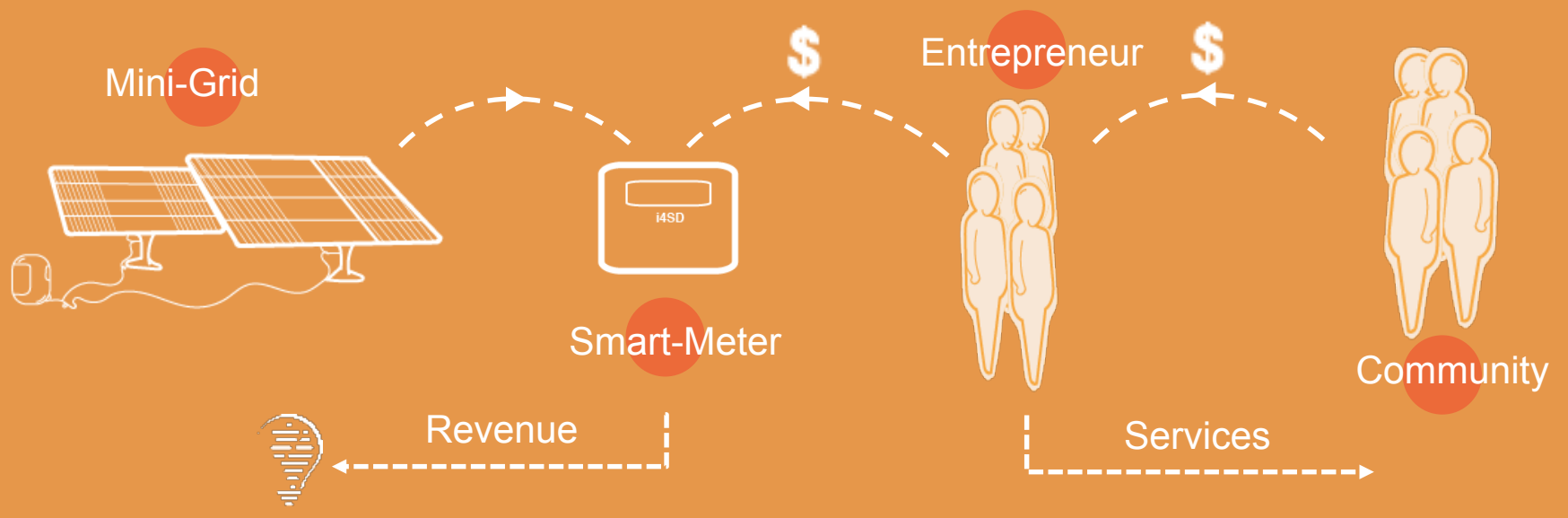ENERGY FOR INSTITUTIONAL NEEDS (ELECTRICITY FOR OFFICES) IMPROVED
ENERGY FOR COMMUNITY NEEDS (PUBLIC LIGHTING, SPORTS FIELD)
HOUSEHOLD AND INSTITUTIONAL COOKING (LPG PAYG/IMPROVED COOKSTOVES)
REPLACEMENT OF DIESEL GENERATORS BY EXPANDED HIBRID MINI-GRID
EXPAND ENERGY SERVICES TO NEARBY COMMUNITIES

i4SD
INFRASTRUCTURE FOR
SUSTAINABLE DEVELOPMENT

EDUCATION   EMPLOYMENT   GENDER   HEALTH   ENVIRONMENT

OVERVIEW OF PROJECT SCOPE

PUBLIC LIGHTING

ENERGY BUSINESS BOOTHS

HYBRID MINIGRID

ADMINISTRATIVE OFFICES

MULTI-USE ICT CENTER

i4SD
INFRASTRUCTURE FOR
SUSTAINABLE DEVELOPMENT

IMPACT

EDUCATION EMPLOYMENT GENDER HEALTH ENVIRONMENT

ENERGY BUSINESS BOOTH: MARKET MODEL

Mini-Grid

$

Entrepreneur

$

Smart-Meter

i4SD

Community

Revenue

Services

i4SD
INFRASTRUCTURE FOR SUSTAINABLE DEVELOPMENT

IMPACT

EDUCATION EMPLOYMENT GENDER HEALTH ENVIRONMENT

EDUCATION   EMPLOYMENT   GENDER   HEALTH   ENVIRONMENT
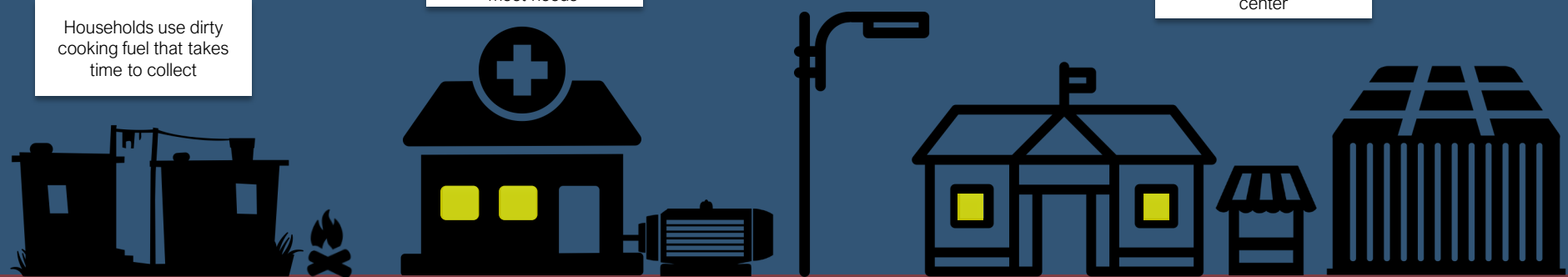
SUSTAINABLE DEVELOPMENT GOALS

SITUATION

Households use dirty cooking fuel that takes time to collect

Institutions **at settlements** spend $15k monthly on diesel to meet needs

30% of institutional streetlights remain without power

We will install 10kw minigrid, which will power ICT training center

GSMA AWARD

Jan 19"
Begin installation of **10kw minigrid** and start ICT training programs, drone mapping for energy & mobile connectivity

June 19"
Begin **expansion of capacity to 30kw**, launch Productive Use Entrepreneur training program

Dec 19"
Launch **Mobile Payments** integration enabling **PayGO** clean power for household, productive and institutional

June 20"
Blueprint model and **scale to other settlements. share learnings** to GSMA & UN network

EDUCATION   **EMPLOYMENT**   **GENDER**   **HEALTH**   **ENVIRONMENT**

SUSTAINABLE DEVELOPMENT GOALS

GSMA GRANT IMPACT

Households apply for LPG service & pay with our mobile app

We expand institutional power with smart metered payments

We provide clean power for institutional streetlights

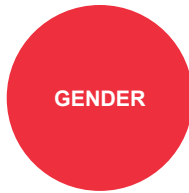Productive Use Entrepreneur program launches, with Smart Meter Kiosks

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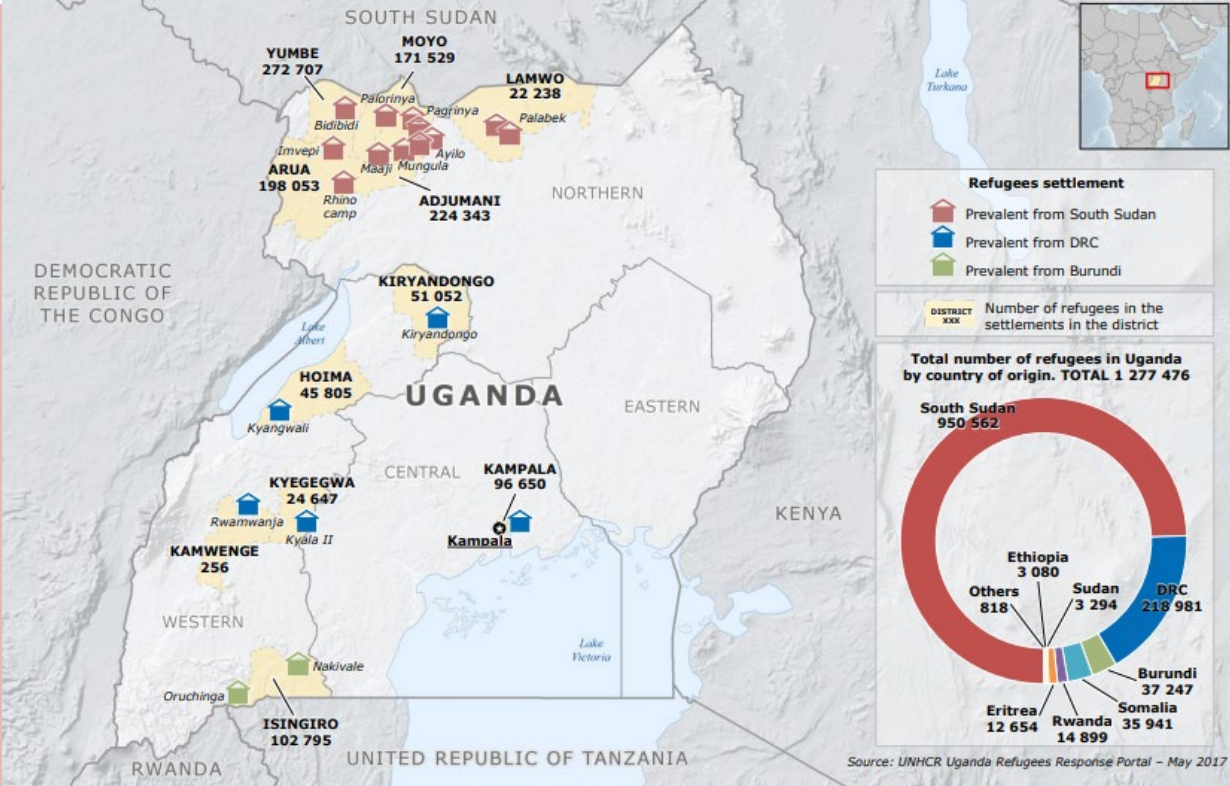
SUSTAINABLE DEVELOPMENT GOALS

SCALE

We will partner with UNHCR to scale mobile-enabled aggregate demand models for clean energy throughout Uganda

Through our network at the UN and the GSMA platform we will share learnings so others can scale this approach in global markets

SOUTH SUDAN

YUMBE 272 707
MOYO 171 529
LAMWO 22 238
Paiorinya
Pagrinya
Palabek
Bidibidi
Imvepi
Ayilo
ARUA 198 053
Maaji Mungula
Rhino camp
ADJUMANI 224 343
NORTHERN

DEMOCRATIC REPUBLIC OF THE CONGO

KIRYANDONGO 51 052
Kiryandongo

Lake Albert

HOIMA 45 805
Kyangwali

UGANDA
EASTERN

KYEGEGWA 24 647
Rwamwanja
Kyaka II
KAMPALA 96 650
Kampala
CENTRAL
KENYA

KAMWENGE 256

WESTERN
Nakivale
Oruchinga
ISINGIRO 102 795

Lake Victoria

RWANDA
UNITED REPUBLIC OF TANZANIA

Lake Turkana

Refugees settlement
Prevalent from South Sudan
Prevalent from DRC
Prevalent from Burundi

DISTRICT XXX Number of refugees in the settlements in the district

Total number of refugees in Uganda by country of origin. TOTAL 1 277 476

South Sudan 950 562

Ethiopia 3 080
Sudan 3 294
Others 818
DRC 218 981
Burundi 37 247
Eritrea 12 654
Rwanda 14 899
Somalia 35 941

Source: UNHCR Uganda Refugees Response Portal – May 2017

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