Opportunities for Capacity Building and Knowledge Sharing in Humanitarian Energy – An African Perspective
Introduction

• SERC is an energy research centre which was founded in 2012
• **Focal areas:** Solar PV & Thermal, Bioenergy, Energy Efficiency
• **What we do:**
  ▪ Training
  ▪ Testing of Solar PV products
  ▪ Research and Consultancy in the energy industry
Training Courses

- Monthly training programs
- Solar PV Course
  - Tier 1 - Stand alone DC
  - Tier 2 - Stand alone AC
  - Tier 3 - Grid connected and Standalone Hybrid PV
- Biogas
- Bioenergy
- Energy Management
- Solar Water Pumping
- Tailored Trainings
- Coming up: Training on design of mini grids, small hydro and heating
Experience

Mahama Refugee Camp, Rwanda Source: Caritas
Solar PV Microgrids for Enterprises in Humanitarian Settings

- We used Mahama refugee camp in Rwanda as a case study.
- The project was funded by GCRF.
- The main aim was to determine the socio-economic impact of connecting business enterprises in refugee camps using solar PV microgrids rather than the conventional fossil fuel-based microgrids.
Solar Street Lighting Project Kakuma Refugee Camp

- The aim of the project was to provide a detailed plan including GPS coordinates for an envisaged street lighting system.
- The study included a viability assessment of solar standalone streetlights, risk analysis and recommendations on the most suitable approach for each specific area.

Source: IKEA Foundation
External Training Courses

• SERC developed curricula for Solar PV training courses in Somalia and South Sudan.
• The training in Somalia was funded by the ILO in 2018.
• The South Sudan Training was funded by the Norad grant.
Partnership

• SERC will be a training partner and will train ICRC Staff on Electrical Engineering Principles.

• The Electrical Installation Basics fits as an introductory course for solar PV trainees who do not have a background in Electrical Engineering.

• Development of a potential training course for engineers who need practical training in Electrical Engineering installation.

• Equipment can be used to train Engineering School students.