



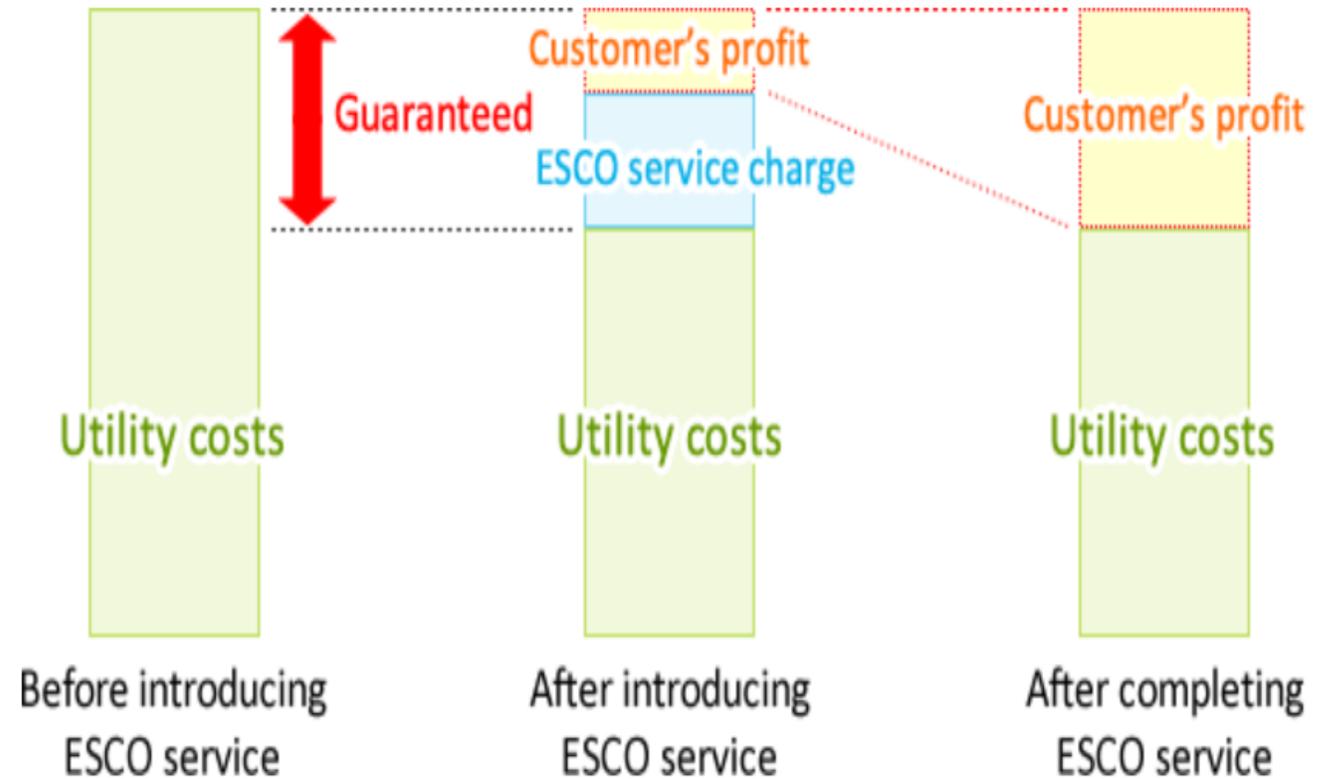
Energy Efficiency At A Hatchery Facility In Kenya Through Shared Savings Agreement

MR. KELVIN ODHIAMBO CEM, CMVP
DIRECTOR & CTO ICOPOWER KENYA LTD

Who We Are

Icopower-ESCO is a Kenyan company that specializes in energy service delivery through implementation of energy efficiency, renewable energy and energy conservation solutions

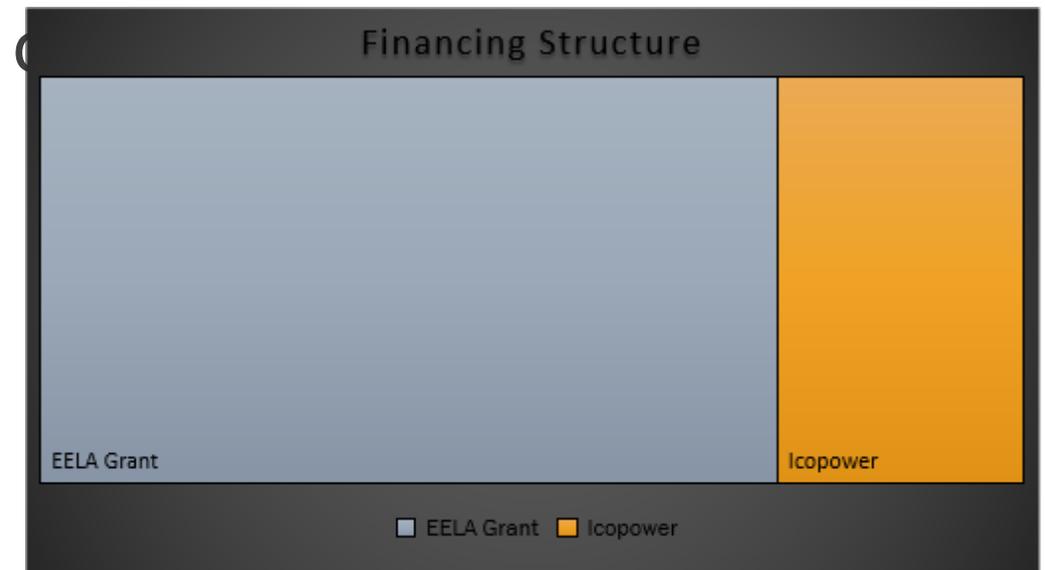
Icopower engages facilities in comprehensive energy audits and studies, identifies areas of improvement, designs and delivers the solutions to the facility under a shared savings business agreements.



Financial Parameters and EELA Support Structure

EELA Project No.	Q2
EELA Project Name	Icopower Kenya Ltd
Window	Window 2: Conducting due diligence process on potential energy efficiency projects
Project Description	Energy Efficiency Retrofit Project for Kenchic Athi River Hatchery
Location	Athi River, Machakos county, Kenya
E n e r g y C o n s e r v a t i o n M e a s u r e s	<ol style="list-style-type: none"> 1) VFD Retrofit for Water Pumps 2) ORS Optimization for RTUs 3) Voltage and Power Quality Optimization 4) Lighting Retrofit
Client Name	Kenchic Limited
Financial Model	Shared Savings Energy Performance Contract (SSEPC)
Project Duration <i>(requested by Icopower)</i>	13 months <i>(including 3 months for Investment Grade Audit completed between January and March 2021)</i>

Icopower applied for a co-financing facility from EELA to the tune of 75% of the project

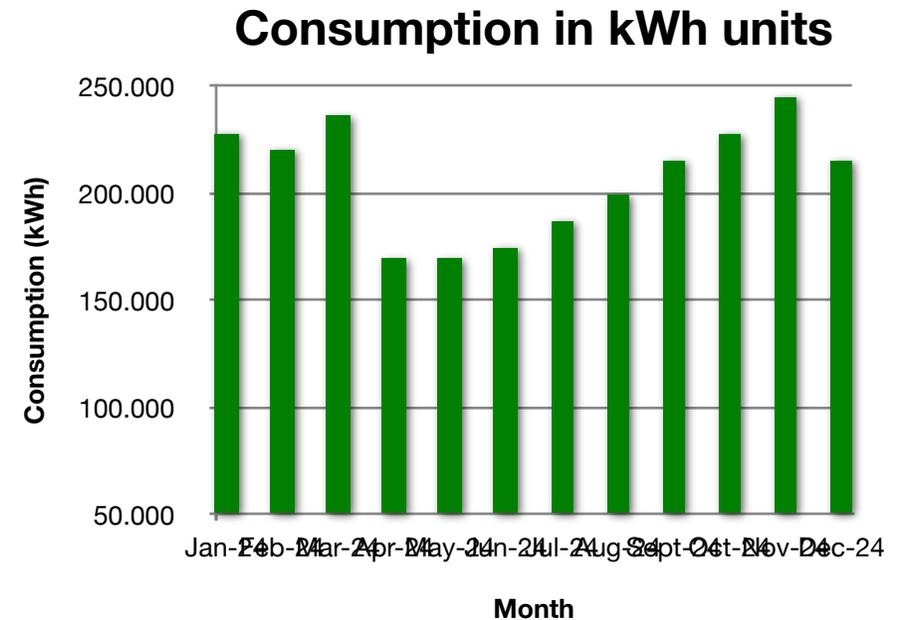


Project Summary

BACK GROUND

- The Energy and Petroleum Regulatory Authority of Kenya requires facilities that consume at least 180,000 kWh annually to conduct an energy audit at least ones every three years and to implement at least 50% of measures identified.
- Icopower was contracted by a hatchery facility in Nairobi to conduct an Investment Grade Energy Audit in Q1 of 2021
- The facility then contracted Icopower to implement an array of major energy efficiency measures identified in the audit under a shared savings model

CLIENT ENERGY CONSUMPTION PATTERN



EELA Technology Installed



Voltage and Power Quality Optimization



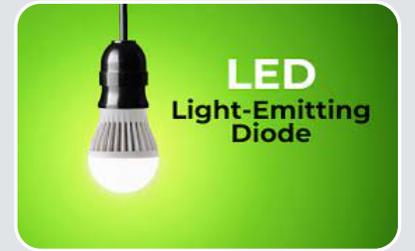
Refrigeration and Airconditioning Optimization Solutions



Energy monitoring and building and process automation



Variable Frequency Drives for Pumps



Energy Efficient Lighting Solutions

Benefits

Benefits from the project are not only commercial but also environmental and social



Environmental: With Reference to the baseline set in the IGA, the project is expected to reduce CO2 emissions by 76,288 kgCO2e which equates to



Commercial: With Reference to the baseline set in the IGA, the project is expected to result in energy savings equal to 240,353 kWh or € 47,360 annually



Social: The project has co-benefits in the form of direct and indirect employment.

Reflection on Opportunities and Challenges:

On the one hand Kenya has one of the highest electricity tariff schedules in the region which provides the strongest motivation to business leaders to want to optimize OPEX through EE initiatives on the other, the speed of penetration of EE in the market is derailed by a host of challenges.

Opportunities include High cost of electricity, steadily developing regulatory environment, higher demand for EELA support

Challenges in the process include relatively low levels of awareness across the industry about support facilities such as EELA, relatively low level of confidence in clients in the power of EE, little penetration of ESCOs in the Kenyan market

Suggested way forward includes an initiative by stakeholders to strengthen, the ESCO market through formation of a Super ESCO and ESCO regulation, support in training and capacity building to increase confidence in EE as an economic growth instrument.

Q & A



I'm not lazy. I'm just in
energy-saving mode.