



AFRICAN  
SCHOOL OF  
REGULATION



Conference Series

INTERNATIONAL ONLINE CONFERENCE

# ELECTRIFICATION OF HEALTHCARE FACILITIES IN AFRICA



10TH, 11TH AND 12TH, DECEMBER 2024



12:00pm - 2:00pm GMT | 3:00pm - 5:00pm EAT



# Outline

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- Requirements for a satisfactory business model for the electrification of health centres
  - The non-sustainable & non-scalable approach
  - Searching for a solution
  - How to make it possible?
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# Requirements for a satisfactory business model for the electrification of health centers

- The strategy of electrification of health centres must be consistent with their public service mission and their financing characteristics (*electricity is a cost component for the health centre & the business model for the supply of electricity is what must be discussed here*).
- The business model for the electrification of health centres must be
  - **sustainable**, i.e., financially viable on a permanent basis.
  - **scalable**, i.e., all health centres must be electrified.



## The non-sustainable & non-scalable approach

“Efforts to electrify healthcare facilities have largely depended on grants and donor support, focusing on EPC models. While they offer quick implementation, they often overlook long-term O&M, leading to sustainability concerns.”

→ **State of the Market Report for Healthcare Facility Electrification**

FEBRUARY 2024

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## Issues with the present business models

- **Electrification of health centres is contemplated by itself, in a silo,** separately from the rest of the electrification effort
  - However, they could benefit from a comprehensive electrification plan & cross-subsidization.
  - The conditions of electrical supply change, for instance, if a minigrid is deployed in the village or if the national grid arrives.
- Many existing health centres have been built with “**concessional money**”
  - Funding is mostly implemented as initial capital subsidies
  - As a result, the business models have a high risk of not being sustainable (needed additional funding – CAPEX & OPEX – is not available later)



## Searching for a solution

“A shift towards service-based models, such as the ESCO model is emerging, where private sector providers offer electricity services over extended periods, ensuring consistent power quality”

→ **State of the Market  
Report for Healthcare  
Facility Electrification**

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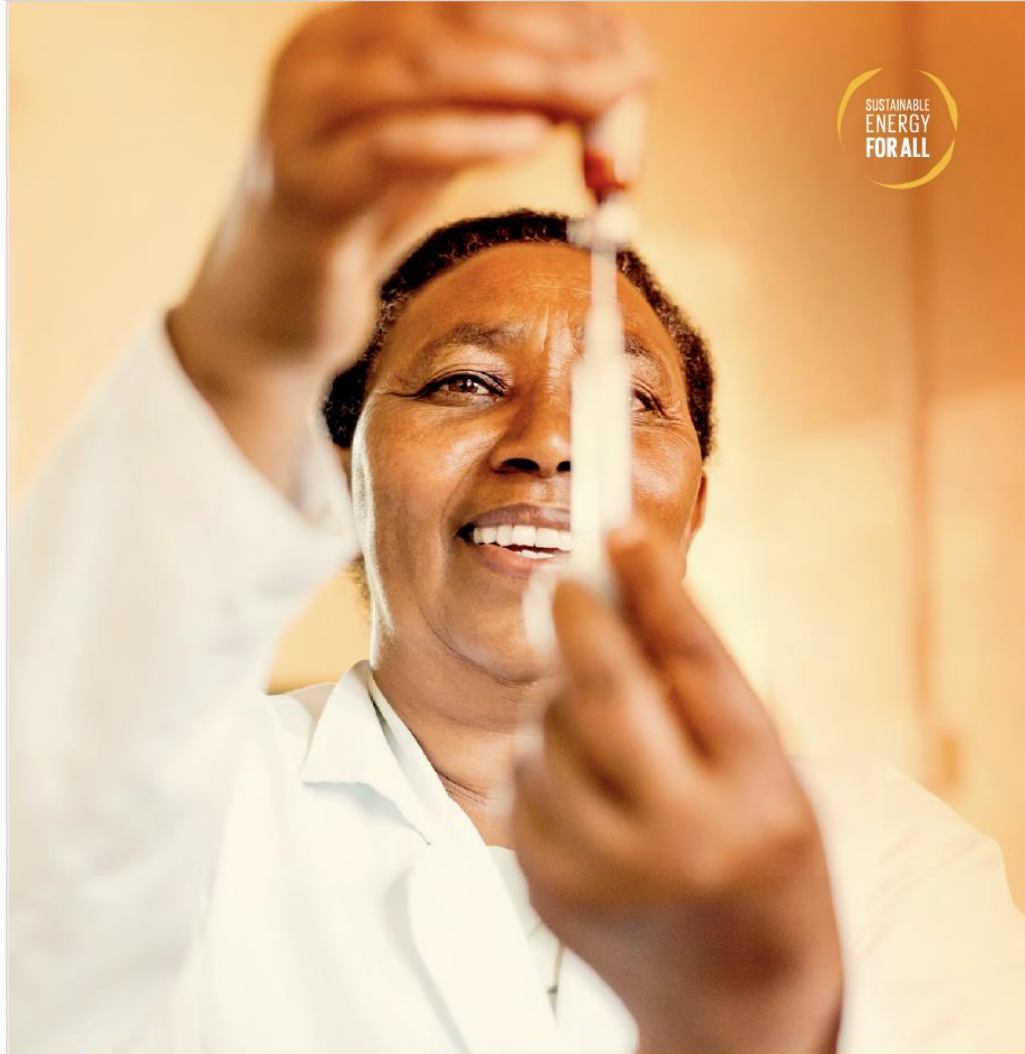
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## Elements of a solution

- Electrification of health centres needs **dedicated entities**: either a specialised public agency or a concessionaire via a public - private partnership (PPP)
  - Reduce costs making use of economies of scale by supplying multiple centres.
  - Reduce costs by supply adaptation to demand characteristics & use of advanced technologies.
- **Remuneration** of the electricity supplier **must be attractive & low risk**, so that PPPs with private electricity supply companies can be possible.



# How to make it possible?

“An increasing number of governments are also including health facility electrification in their national electrification strategies or developing health care specific policies that prioritize the electrification of healthcare institutions.”

→ **State of the Market Report for Healthcare Facility Electrification**

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# Requirements for a satisfactory business model for health centers

- The business model for health centres must be **scalable**, i.e., all health centres must be electrified.
  - ➔ Electrification of health centres must be **integrated into the larger picture of a national electrification plan** & must have **priority within the plan**, because of the essential nature of their service.
- The business model for health centres must be **sustainable**, i.e., financially viable on a permanent basis:
  - ➔ From the viewpoint of the government, **financing electrification should be contemplated in an integrated way**, jointly considering all electrification modes & the contributions of DFIs, donors & private investors, as well as the income from regulated tariffs (*including cross-subsidization schemes*)

# Requirements for a satisfactory business model for health centers - specifics

The **remuneration** of the electricity supplier

- will be established in a **solid concession contract**, based on the outcome of a tender or regulated and based on the efficient cost of service with a reasonable rate of return,
- and can be collected from a **subsidised tariff for the health centre** (covered by the government) **plus a direct subsidy to the supplier** obtained from a broad cross-subsidisation scheme within the integrated financial electrification plan.



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Policy dialogue on

## **SUSTAINABLE AND SCALABLE MINIGRID BUSINESS MODELS**

Summary of Conclusions <sup>2</sup>

Makerere University in Kampala, Uganda,  
on September 10th, 11th and 12th, 2024. <sup>1</sup>

Prepared by  
African School of Regulation

A reference

## **An Integrated Framework for Electrification (IFE)**

This brief report examines the regulatory, business and financial models that must be employed to achieve universal electricity access, with a focus on how to achieve sustainable and scalable minigrid business models in sub-Saharan Africa. The report summarises the outcome of a meeting of a diverse group of experts at Makerere University in Kampala, Uganda, in September 10, 11 and 12, 2024.<sup>3</sup>

The main overall recommendation was to adopt an "integrated approach" to electrification. The regulation, business models and financing of mini-grids need to be integrated into the national electrification strategy, and therefore in the definition of the planning, regulation, business models and financing of all the electrification modes.

Link to Kampala's position paper: <https://africanschoolregulation.org/the-asr-and-key-stakeholders-discuss-on-a-sustainable-and-scalable-mini-grid-business-model-in-africa/>



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**INTERNATIONAL ONLINE CONFERENCE**  
**Electrification of Healthcare Facilities in Africa**

December 10th, 11th, and 12th; 3 to 5 pm EAT

**The regulatory perspective: the need for  
sustainable and scalable business models**

**Frederick Nyang**

African School of Regulation (ASR)