ENERGIZING HEALTHCARE 2025

3-4 FEB | NAIROBI, KENYA

SUSTAINABLE ENERGY FOR ALL

Health and Energy Platform of Action

A WHO hosted network World Health Organization

CONFERENCE REPORT

About Energizing Healthcare 2025

Energizing Healthcare 2025, a two-day standalone conference, was dedicated to accelerating action on powering healthcare facilities in low-resource settings with clean and reliable energy. The aim was to bring together stakeholders from the energy, health and climate sectors to have exciting and honest discussions on healthcare electrification, find innovative solutions, and create and strengthen alliances to drive healthcare electrification. This report summarizes the highlights from the conference.

Objectives

- Raising awareness of the gaps and opportunities in powering healthcare
- Improving coordination and ambition across energy, health, and climate
- Exchanging knowledge and practical experiences
- Fostering innovation to catalyze private sector participation
- Strengthening and creating partnerships
- Mobilizing resources

ENERGIZING HEALTHCARE 2025

In Numbers

~200
in-person participants from the energy, health and climate sectors

24
sessions including intimate discussions and TED-style talks

84
speakers from diverse backgrounds; over 40 per cent female

2
reports launched, both first-of-their-kind in healthcare electrification

42
countries represented by attendees

12
innovations exhibited at the exposition

Key takeaways

- There has been **significant progress** in the sector in the last 5 years, especially during and after COVID-19. The sector continues to grow, with ever more active stakeholders, additional health facilities being electrified yearly, and a healthy pipeline of funded or planned projects.
- However, the **energy access gap remains significant**. **1 billion people** in the world are served by health facilities which either have no access to electricity or are hindered by unreliable electricity.
- **~USD 5 billion** will be required in the form of grants, debts and guarantees for capital and operational costs, to close the energy gap by 2030. To put this into perspective, less than $5 would need to be invested per impacted person.
- There was a noticeable trend toward focusing on **consumption as well as the number of connections** in healthcare electrification projects.
- **Sustainability and the 'Operations and Maintenance (O&M) conundrum'** featured heavily with innovative financing mechanisms and delivery models like Energy-as-a-Service, Distributed Renewable Energy Credits (D-RECs), etc. discussed widely. Lessons learnt from pilots will soon be available to be adapted to other geographies and projects.

Programming highlights

FINANCING AND INVESTMENT

- **Inconsistent funding streams and lack of long-term funding for O&M** remain key barriers to healthcare electrification.
- **Blended finance,** i.e, combining grants, debt, results-based financing (RBF), and equity can help attract private sector investment and ensure long-term sustainability.
- **Currency fluctuations, affordability concerns, and policy uncertainties** hinder investment. Risk mitigation mechanisms include guarantees and performance-based contracts.

ENERGY DELIVERY MODELS

- **Sustainability solutions in energy delivery models** include performance-based payments, modular system design and better integration of energy service companies (ESCOs).
- **Energy-as-a-service offers a way to fund and maintain energy systems** through service providers while ensuring service reliability. However, pre-conditions for private sector participation, such as reliable payment structures, need to be addressed. Hence, the model is not yet a silver bullet for all countries/geographies.

MONITORING IMPACT

- It is critical to **allocate budget for long-term Monitoring, Evaluation and Learning (MEL)** right at the project design stage.
- **Standardized impact metrics and long-term performance tracking are needed** to assess sustainability, efficiency and effectiveness of interventions.
- **Transparent and accessible reporting** on project outcomes can be encouraged to inform future initiatives and for cross-learning.

COORDINATION

- **Stronger collaboration is needed** between governments, development partners, financing institutions, and private sector.
- **Public-private partnerships (PPPs) with long-term commitments,** for e.g., 20-year agreements, are proving to be effective for mini-grids in some countries like Liberia and Sierra Leone, which could be adopted for health electrification as suitable.
- Countries like Sierra Leone and Nigeria are investing in **cross-ministerial collaboration** to align energy and health sector priorities.

Programming highlights

CLIMATE RESILIENCE

- It is important to **integrate healthcare electrification into national climate plans,** and climate resilience measures in the design of the health facility energy infrastructure.
- **Governments can play a key role in mobilizing climate finance** for healthcare electrification but need more training on how to do this.
- **Other environmental aspects like e-waste management** need to be prioritized.

ENERGY EFFICIENCY

- Up to **70% of medical equipment in developing countries remains unused** due to power-related issues.
- **Standardized energy efficiency requirements are needed** across all medical equipment.
- **Government procurement processes must consider energy efficiency of medical equipment as well as their suitability** to harsh conditions.
- **More investment is needed in R&D** to develop innovative, energy-efficient medical appliances.

Programming highlights

PLANNING IN HUMANITARIAN SETTINGS

- **Short-term funding cycles remain one of the main barriers** to powering healthcare in displacements settings**.**
- **Greater coordination is needed** to integrate energy access into national healthcare and energy planning.
- **Switching from diesel-based solutions to solar systems** is crucial to increase energy autonomy and climate resilience, and to reduce energy costs in the long-term.
- **Carbon credits and innovative financing mechanisms** (e.g., solar-for-diesel replacement) are being explored to close funding gaps.

OTHER ESSENTIAL SERVICES

- **Integrated planning and funding mechanisms are needed** to ensure that health facilities receive energy and other essential services like clean water and digital infrastructure.
- **Healthcare electrification projects should integrate digital connectivity** from the start to enhance patient care, data management, and remote health monitoring.
- **Decentralized energy solutions, such as solar-powered water pumps, are critical** in areas where centralized infrastructure is lacking for access to water.

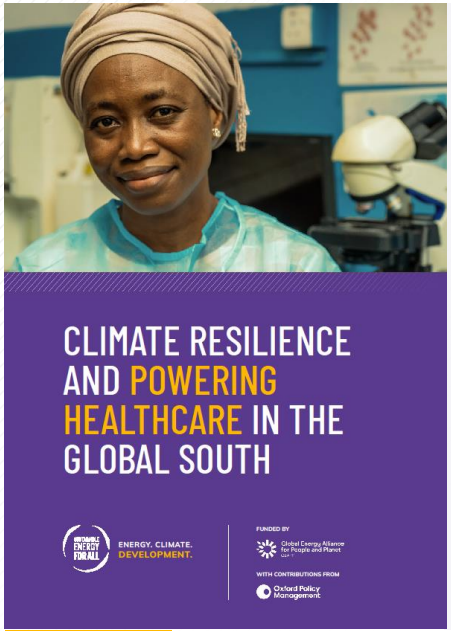
DATA AND DIGITALIZATION

- **Tools like CEAT and GridWatch are being used for** real-time tracking of power reliability, identifying inefficiencies, and prioritizing investments.
- **Efforts are needed to integrate diverse datasets** and improve accessibility.
- **AI and machine learning can help make a stronger case for investment in solarization** by quantifying emissions reductions and assess healthcare service improvements,.
- **Combining advanced data tools with on-the-ground insights is crucial** for effective implementation.

COMMUNITY OPPORTUNITIES

- **Training local technicians, healthcare staff, and community members** to operate and maintain energy systems is critical for success.
- **Healthcare electrification can drive local economic growth** by creating jobs in design, installation, maintenance, and boosting entrepreneurship.
- **Women participation can be improved by partnering with governments** to convince community leaders and involving the men in the family to get buy-in and support.

Reports launched



HIGHLIGHTS

- **Climate change** will both increase facilities' energy needs for dealing with climate-related impacts on public health and simultaneously disrupt the supply of energy to facilities.
- **This study is the first comprehensive exploration of this impact** and identifies strategies to mitigate these risks.
- **Focusing on Kenya, India, and Barbados**, the study provides diverse, context-specific findings that inform scalable solutions for enhancing energy security and healthcare resilience that can be applied across the Global South.

DOWNLOAD →

HIGHLIGHTS

- **The briefing defines the healthcare electrification gap in humanitarian settings** and explores its root causes.
- **It identifies a pipeline of 175 health facilities for electrification** in **12 countries** that serve fragile and displaced communities
- **It includes 11 case studies** across sub-Saharan Africa which highlight real-world strategies and lessons learned from humanitarian-led projects in **Mauritania, Tanzania, Ethiopia, and Uganda.**

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Innovation and technology

Exhibitors presented and displayed 15 innovations ranting from smart grids to vaccine refrigerators at the conference and the exposition.

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