OFF-GRID RENEWABLES SUPPLY
LIFE-SAVING POWER TO RURAL HEALTH CENTRES

Access to electricity is crucial to provide effective healthcare

Electricity is essential to power vital medical devices, including vaccine refrigerators and emergency-surgical, laboratory and diagnostic equipment.

Electricity is also important for basic amenities like lighting, cooling, ventilation and communications. Providing clean and hot water also depends on access to energy.

Reliable electricity supply dramatically improves the quality, accessibility and reliability of health services.

In the absence of reliable power, many life-saving interventions cannot be undertaken safely or at all.

Yet an estimated one billion people rely on health facilities without electricity1

• Even facilities with electricity access often suffer from unreliable supply.
• In a recent study analysing over 121,000 facilities, almost 60% of healthcare facilities in 46 low- and middle-income countries were estimated to lack reliable electricity.2
• While most large hospitals have electricity, the access rates drop dramatically for rural clinics.3
• Off-grid renewable energy solutions (stand-alone and mini-grid systems) represent cost-effective, rapidly deployable, reliable options for the electrification of healthcare facilities in rural areas. This can have a transformative impact on people’s lives.

ENERGY FOR HEALTH SERVICES

- Cold chain
- Neonatal intensive care
- Functionality of medical devices
- Surgery
- Laboratory diagnostics
- Recruitment and training
- Continued medical education
- Better staff morale
- General hygiene improved
- Enhanced safety
- Staff and patient sense of security and safety


Recognising the need for action, the International Renewable Energy Agency (IRENA) organised the International Conference on Renewable Energy Solutions for Healthcare Facilities

Taking place on 2 November 2018 in Singapore, the conference brought together key energy and health-sector stakeholders, including policy makers, practitioners, finance institutions, development partners and non-governmental organisations. All of them play a role in enhancing electricity access for rural healthcare facilities in low-income areas.

Among the key findings:

• Health facilities should be a high priority in electrification plans among both national governments and development partners. Off-grid renewables offer rapidly deployable, reliable, cost-effective solutions.

• Addressing the energy access need in healthcare facilities requires increased co-operation between the energy and health sectors, including ministries of energy and health. This should happen at all levels, from strategy and planning to policies, budgeting, procurement and implementation.

• Capital and recurring expenses related to electricity should be budgeted as part of healthcare facility operations from the outset. Budgeting should also reflect costs for operation and maintenance, such as battery replacement.

• Strong collaboration between private, public and non-governmental institutions has proven a key success factor for healthcare electrification in certain African and South-Asian countries. Such partnerships should be encouraged.

• There is a need for innovation in delivery and financing models. Dedicated support and financing schemes, and energy service agreements, can help accelerate electrification of rural health centres.

• Aggregation models, with proximal health facilities grouped together on a shared energy service contract, could bring down costs and facilitate maintenance.

• Innovation has to be encouraged and promoted across the value chain, including in the design of robust, low-maintenance, efficient, user-friendly medical devices suited for use in remote off-grid areas.

• Energy-efficient medical devices, combined with off-grid renewable energy and telecommunications, can expand the services offered by primary health centres in under-served communities. This also reduces the need for patients to travel to larger, more distant facilities.

• A local ecosystem must be created to ensure the long-term sustainability of renewable energy systems. This includes training staff and maintenance technicians in rural areas.

• Electrifying rural health centres strengthens staff recruitment and retention, further improving the reliability and continuity of rural medical services.