



**World Health
Organization**

Electrification of health-care facilities

AIDE-MEMOIRE

For enhanced country action to accelerate the electrification of health-care facilities through decentralized solar systems



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Access to reliable electricity is fundamental for the effective functioning of health-care facilities (HCFs) and to enable essential quality health services, yet nearly 1 billion people globally rely on facilities without reliable electricity or with no electricity access at all. This lack of power is particularly severe in low- and middle-income countries, especially rural and remote areas in regions like sub-Saharan Africa and South Asia. Without reliable electricity,

HCFs struggle to perform essential services: they cannot maintain cold chains for vaccines, operate life-saving equipment for maternal and newborn care or ensure proper lighting and water supply. This creates severe health risks, as well as challenges in staff retention, patient safety, and operational capacity for both routine and emergency care.

Decentralized solar photovoltaic systems coupled with batteries represent a key opportunity to accelerate electricity access in HCFs. These systems offer a sustainable, cost-effective, and rapidly deployable alternative to traditional power grids, providing facilities with reliable, clean energy and increased climate resilience. Scaling up investments in decentralized solar power system can address energy inequities, improve health outcomes, reduces costs and contribute to broader goals like universal health coverage and climate mitigation and adaptation, supporting the fundamental right to health.

WHO support to countries

- Provides support on techno-economic analyses, including on: (i) development of energy needs assessments in HCFs, (ii) design of decentralised solar systems, (iii) development of technical specifications necessary for equipment procurement and installation, (iv) and identification of the most suitable operation and maintenance approaches.
- Engages with partners to accelerate HCF electrification (including through the Health and Energy Platform for Action, HEPA).
- Provides technical support to strengthen professional capacity of the health sector to increase health professionals' ability to design, implement and maintain HCF electrification programmes.
- Provides a compendium of interventions and supports their implementation to accelerate HCF electrification based on lessons learned and country examples.

✓ Checklist

Governance & political leadership

- ☐ Electricity access status in HCFs assessed and included in health system monitoring.
- ☐ Electrification of HCFs prioritized in national electrification programmes and funding allocation.
- ☐ Cooperation between health and energy sectors promoted.

Policies & actions

- ☐ Long-term operation and maintenance of the facilities' energy systems and medical devices ensured.
- ☐ Decentralized solar systems promoted to rapidly power all HCFs.
- ☐ Plans for electrification of HCFs designed and financial support identified.
- ☐ Coordination with water, sanitation and hygiene (WASH) initiatives and with provision of power-dependent medical devices promoted.

Awareness raising & capacity building

- ☐ Health workforce trained and empowered on using, performing and maintaining energy services.
- ☐ Data on electricity services and interventions in HCFs disseminated.

Key elements for country action

Governance and political leadership

- Assess electricity status in HCFs and include it in routine health system monitoring.
- Prioritize electrification of HCFs within national electrification programmes, considering the health impacts and cost effectiveness of HCFs electrification interventions, and allocate resources accordingly.
- Advocate for inclusion and prioritization of HCFs electrification within broader renewable energy and climate related support programmes funded by development partners.
- Increase cooperation between the health and energy sectors. Electrification of HCFs should be considered a priority in the framework of energy and climate interventions from governments and development partners.
- Include HCF electrification in negotiations and funding proposals for key donors from health, energy and climate sectors.

Policies and actions

- Promote decentralized renewable energies, such as solar photovoltaic systems coupled with batteries, to power HCFs, enhance their climate resilience and reduce greenhouse gas emissions.
- Ensure the long-term operation and maintenance of the solar energy systems, putting in place adequate arrangements and resources. This involves:
 - ensuring dedicated funding for this activity;
 - building the capacity of local energy technicians and health care staff to sustainably use and maintain the facility's energy system and medical devices.
- Ensure coordination with provision of power dependent medical devices and appliances as well as with water, sanitation and hygiene (WASH).
- Identify resources and financial support, design and implement plans for electrification of HCFs.
- Promote coordination with WASH initiatives and ensure provision of power-dependent medical devices in the HCFs.

Awareness raising and capacity building

- Train and empower the local health workforce by providing capacity building on correct use and preventive maintenance of decentralised energy systems.
- Facilitate data sharing on electricity access status as well as on electrification interventions in HCFs, to enhance transparency and inform decision-making.

Additional information:



Main resources:

- Energizing health: accelerating electricity access in health-care facilities: <https://www.who.int/publications/i/item/9789240066960>
- WHO's information on HCF electrification: <https://www.who.int/teams/environment-climate-change-and-health/air-quality-energy-and-health/sectoral-interventions/health-care-facility-electrification>
- Fact sheet – Electricity in HCFs: <https://www.who.int/news-room/fact-sheets/detail/electricity-in-health-care-facilities>
- Health and Energy Platform of Action (HEPA). <https://www.who.int/initiatives/health-and-energy-platform-of-action>

Please note that this aide mémoire provides summary information on the electrification of health care facilities only. More detail on safe, climate-resilient and environmentally sustainable health care facilities, and other environment, climate change and health issues are provided in various other materials and additional aide mémoires on specific topics.