Fifteenth session of the IRENA Assembly

Empowering Lives and Livelihoods with Renewables

11 January 2025, 14.30 to 16:00 GST
St. Regis Hotel, Saadiyat Island, Abu Dhabi

Background

Reliable and sustainable energy access is crucial for the provision of quality healthcare, especially in developing countries where healthcare facilities often lack sufficient infrastructure and resources. Close to one billion people globally are served by health-care facilities with no electricity access or with unreliable electricity. Without reliable energy access, healthcare systems cannot function effectively, leading to poorer health outcomes, especially in rural, remote, and underserved regions. Inadequate and unreliable energy sources hinder essential services such as emergency obstetric care, neonatal care, and immunisations.

Since the launch of the "Empowering Lives and Livelihoods: Renewables for Climate Action" initiative at COP28 in 2023, IRENA has been working with 12 countries to promote productive use of energy, five of which are focusing specifically on integrating renewable energy solutions into the healthcare sector. This initiative aims to foster collaboration across governments, the private sector, and development partners to improve healthcare infrastructure through renewable energy, particularly in underserved areas.

The integration of renewable energy solutions into healthcare can play a pivotal role in mitigating the impact of climate change on health. As highlighted in Sustainable Development Goal 7 (SDG 7), which aims to ensure access to affordable, reliable, and modern energy for all, energy is directly linked to achieving SDG 3 —ensuring healthy lives and promoting well-being for all. Energy access is fundamental to resilient healthcare service delivery. Renewable energy can enhance the operational capacity of healthcare facilities by ensuring reliable electricity for essential functions such as lighting, refrigeration, and medical equipment operation.

Decentralised renewable energy solutions, particularly solar energy, offer a cost-effective and reliable energy source for healthcare facilities in remote areas, where grid connections are either non-existent or unreliable. Beyond improving access to healthcare services, renewable energy solutions can reduce operational costs and increase the sustainability of health facilities. Energy solutions not only provide reliable electricity for essential services but also contribute to climate adaptation by reducing dependence on fossil fuels and enhancing the resilience of health systems to climate-related disruptions.

According to the World Health Organization (WHO), while 91 percent of Nationally Determined Contributions (NDCs) under the Paris Agreement now include health considerations, only about 30 percent specifically identify health co-benefits from climate mitigation measures. Even fewer—just 10 percent —actively quantify or monitor these health benefits. Meanwhile, the healthcare sector accounts for around 5% of global greenhouse gas emissions. Although this percentage is lower than other sectors, integrating healthcare emissions targets into NDCs ensure that efforts to expand healthcare access align with renewable energy adoption, thereby supporting climate targets, fostering a resilient healthcare system aligned with SDGs.

Findings from the countries supported under the Empowering Lives and Livelihoods initiative show that:

- Securing **sustainable financing models** is critical not only for the initial installation of renewable energy systems but also for covering ongoing operational and maintenance (O&M) costs. This approach ensures that energy systems remain reliable and operational over the long term.
- Effective electrification requires robust **inter-ministerial coordination** within governments to align energy and health priorities. Such alignment can optimise resource allocation and enhance the effectiveness of energy interventions in the healthcare sector.
- **Coordination with development partners** is necessary to scale renewable energy projects, avoid duplicative efforts, and create cohesive energy-health strategies that maximise impact and support national and international goals.
- There is a need for **targeted capacity-building** initiatives to train healthcare staff on the operation and maintenance of renewable energy systems, ensuring local ownership and capability to manage these systems independently.
- **Enhancing supply chain** access, especially in remote and underserved regions, is essential. This includes developing financial mechanisms to make critical parts and services accessible and affordable for healthcare facilities.
- **Access to financing options** for local suppliers helps ensure a stable supply chain, supporting timely access to replacement parts and technical services that can reduce system downtime and increase sustainability.
- **Implementing and enforcing quality standards** for renewable energy technology and installation practices is crucial for system reliability and longevity, particularly in high-stakes environments like healthcare.
- **Establishing frameworks for data-driven planning and monitoring** can optimise energy solutions by accurately assessing healthcare facility needs, tracking system performance, and enabling timely interventions to maintain system integrity.

Objectives

The objective of the event is to explore and promote financing solutions that address the energy needs of healthcare systems, particularly in underserved areas, by showcasing successful case studies and de-risking strategies. It aims to highlight best practices for scaling renewable energy investments in healthcare and foster collaboration between governments, the private sector, and international organisations to strengthen policy frameworks and improve inter-ministerial coordination for climate resilience and energy access in health systems.

Associated Publications

Energizing health: accelerating electricity access in health-care facilities (2023)

Assessment and Design of Renewable Energy Systems for Enhancing Healthcare Delivery in Burkina Faso (2022)

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