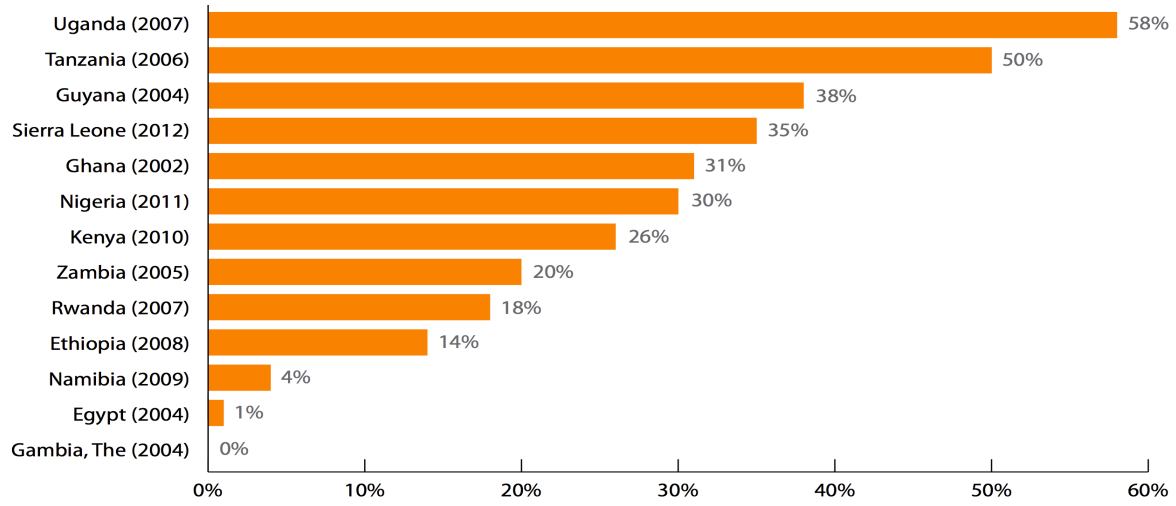
Section 1. Statement of Need

Reliable data on access to electricity among healthcare facilities in least developed countries (LDCs) are sparse. A review of national data on electricity access for healthcare facilities in developing countries led by the World Health Organization (WHO) found national data for only 14 countries [**1**].

Utilizing the data from these 14 representative countries (see Figure 1), the WHO estimates that the lack of access to electricity in healthcare facilities among 51 LDCs with socioeconomic indicators similar to Uganda and Tanzania exceeds 50%, impacting the quality of health care for an estimated 1 billion people.

Figure 1. Healthcare facilities with no electricity access:



Source: *Compiled from* (Adair-Rohani et al, 2013) *for sub-Saharan Africa; data for Guyana and Egypt is from the Service Provision Assessment (SPA) of USAID's Measure Health initiative* (United States Agency for International Development, 2013)

Utilizing these national data sets, the WHO further estimates that 72% of healthcare clinics and 66% of hospitals in more than 100 low-and middle-income countries, including the 51 WHO-identified LDCs, lack reliable electric power [**2**].

Reliable electric power is defined as no power outage for the duration of more than two hours within the past week. The WHO estimates that lack reliable electric power in healthcare clinics and hospitals diminishes the quality of health care for an additional 3.8 billion people.

Universal access to electricity and reliable electric power in healthcare facilities is a critical need for COVID-19 disease containment, diagnosis and treatment. Approximately 4.8 billion people, 61.5% of the world's population, are vulnerable to the health impacts of COVID-19 due the lack of access to electricity and reliable electric power in national health care systems.

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[1] Adair-Rohani, H et al. (2013). Limited electricity access in health facilities of sub-Saharan Africa: a systematic review of data on electricity access, sources, and reliability. *Global Health: Science and Practice*, pp. 249–261. http://www.renewablenations.us/uploads/3/7/6/1/37613217/249-2.pdf

[2] World Health Organization (2014). Access to modern energy services for health facilities in resource-constrained settings: a review of status, significance, challenges and measurement, p 16. http://www.renewablenations.us/uploads/3/7/6/1/37613217/energy_and_health_hio.pdf

[3] Ibid., p. 1.

According to a comprehensive literature review of nearly 80,000 academic articles related to the social dimensions of energy and sustainable development by the Sustainable Energy Transitions Initiative (SETI) at Duke University [**4**], the WHO-led review of access to electricity among healthcare facilities remains the authoritative study on the status of healthcare facility electrification in developing countries.

The SETI literature review—which is systematic, broad in coverage, replicable and grounded in an energy services research framework designed to help policy makers better understand how energy relates to end users—further concluded that energy in health facilities is one of the least researched and least understood issues within the broader energy and development field [**5**]. Only 16 studies considered the impacts of energy on healthcare facilities; the majority of these studies cited the WHO-led review.

The lack of data on access to electricity among healthcare facilities in developing and least developed countries was identified as a critical knowledge gap at both the International Conference on Renewable Energy Solutions for Healthcare Facilities (Singapore, 2018) and at the Clean Energy for Health Care Conference (Nairobi, 2019) [**6**].

Subsequently, the WHO, the International Renewable Energy Agency (IRENA), the World Bank Group (WBG) and the Sustainable Energy for All (SEforAll) Initiative agreed to commission a *Global Assessment of Electricity in Health Facilities* report as a way to build the evidence base for investing in health facility electrification [**7**].

The WHO Department of Environment, Climate Change and Health recently released a "*Call for Expression of Interest"* with a due date of 3 July 2020, seeking a consultancy entity to undertake the report with an anticipated completion date of September 2021 [**8**].

The targeted audience for the *Global Assessment of Electricity in Health Facilities* report includes:

(1) Multilateral finance institutions (e.g. the World Bank Group, the International Monetary Fund, and the United Nations): see Section 2, Multilateral COVID-19 Response;

(2) National governmental agencies (e.g., Ministries of Health, Energy, and Finance, Rural Energy Agencies and planning commissions); and

(3) Multi-sector actors involved in the funding and implementation of energy access solutions for healthcare facilities (e.g., donors, impact investors, private sector service providers, development partners, foundations and non-governmental organizations in the health and energy sectors) [**9**].

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[4] Duke University (2020). Energy as the Golden Thread: What Do We Know? http://www.renewablenations.us/uploads/3/7/6/1/37613217/energy_and_development_a_systematic_review.pdf

[5] Ibid., p. 1.

[6] World Health Organization (2020). Call for Expression of Interest. http://www.renewablenations.us/uploads/3/7/6/1/37613217/eoi-report-electricity-in-healthcare-facilities.pdf

[7] Ibid., p. 2.

[8] Ibid., p. 7.

[9] Ibid., p. 3.

Based upon the *Global Assessment of Electricity in Health Facilities* report findings, the World Health Organization (WHO) and the United Nations Development Programme (UNDP) together with other key stakeholders, such as the World Bank Group (WBG), the International Renewable Energy Agency (IRENA), the Sustainable Energy for All (SEforAll) Initiative and the United Nations Foundation (UNF), are currently building a mechanism for enhanced cooperation among health and energy actors through the establishment of a multi-stakeholder Health and Energy Platform of Action (HEPA) [**10**], and building an "*interconnected Global Health Emergency System*" [**11**].

The report is intended to achieve the following needs assessments toward the goal of establishing HEPA:

(1) Determine how many health facilities (or what fraction of healthcare facilities) in Sub-Saharan Africa, South Asia and Southeast Asia lack access to electricity; assess how many healthcare facilities lack access to reliable electricity; and measure the extent of unreliable electric power services;

(2) Quantify how many people worldwide, and in what specific regions (i.e. Sub-Saharan Africa, South Asia and Southeast Asia), rely on health facilities that lack access to electricity, or access to reliable electricity; identify what portion of these people are women and children; identify opportunities to provide better health services by powering healthcare facilities with distributed clean and sustainable energy solutions; and

(3) Inform decision-making by serving as a benchmark against which progress in electrifying healthcare facilities can be measured; identify what key actions and investments are required to achieve universal health facility electrification based on clean energy solutions by 2030 in accordance with SDG 7. [**12**]

The report, however, neither plans to assess healthcare facility electrification for developing and least-developed countries in Eastern Europe, in Latin America, in the Middle East or in Small Island Developing States (SIDS), nor supports developing countries with technical assistance for lifecycle protocols and project specifications required to access healthcare facility electrification financing.

Identifying this critical need, the Renewable Nations Institute (Institute) proposes to restructure its former *Proud Partnership Agreement* [**13**] with the Sustainable Energy for All (SEforAll) Initiative, and provide direct services to the consultancy entity selected by the WHO Department of Environment, Climate Change and Health. The project duration is projected over a 1-year timeframe beginning 1 September 2020, concurrent with the consultancy entity contract term, and to continue indefinitely in support of the WHO- and UNDP-led Health and Energy Platform of Action.

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[10] World Health Organization (2019). Health and Energy Platform of Action (HEPA)
http://www.renewablenations.us/uploads/3/7/6/1/37613217/hepa.pdf

[11] United Nations (2020). Shared Responsibility, Global Solidarity: Responding to the socio-economic impacts of COVID-19, p. 3.
http://www.renewablenations.us/uploads/3/7/6/1/37613217/sg_report_socio-economic_impact_of_covid19.pdf

[12] World Health Organization (2020). Call for Expression of Interest.
http://www.renewablenations.us/uploads/3/7/6/1/37613217/eoi-report-electricity-in-healthcare-facilities.pdf

[13] Sustainable Energy for All (2017). Renewable Nations Institute Proud Partnership Agreement
http://www.renewablenations.us/uploads/3/7/6/1/37613217/renewable_nations_institute_proud_partnership_22dec2017.pdf