Customized software tool enables medical facilities to meet electrical demands

HOMER SaaS API

Challenge

When the coronavirus pandemic hit, developing countries urgently needed to meet the increased energy demands of treating an influx of critically ill patients. Health facilities with limited engineering resources now had to determine the electrical requirements of specific essential medical equipment and design a power system with the required capacity.

Solution

World Bank contracted with HOMER Energy by UL to update Powering Health — a complimentary online tool built with the HOMER SaaS application program interface (API). The online tool was initially designed in 2011 to make it easy for non-engineers to design hybrid renewable energy systems and find the least-cost power system.

To meet the needs of COVID-19 patients, in 2020 HOMER Energy by UL augmented Powering Health with an extensive database of energy requirements for common health clinic equipment.

Impact

Using Powering Health, health practitioners can develop a power system to meet a facility's energy needs for the lowest cost. Users develop and load profiles using the extensive database of needed medical equipment and related energy requirements, and then identify the least-cost power system to reliably meet those loads. With access to right-sized electrical power, rural health clinics can better respond to patient needs and the most vulnerable countries can better address the ongoing crisis.
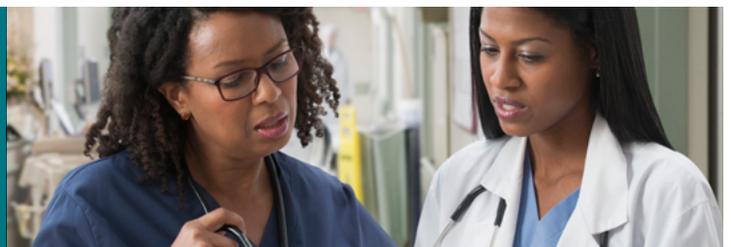
Powering Health is one example of a customized HOMER SaaS API, which enables the creation of a modeling tool with a specific focus.

See Powering Health at:
PoweringHealth.HomerEnergy.com

DETERMINE LOWEST-COST ENERGY

DESIGN RELIABLE POWER SYSTEMS

MEET PATIENT NEEDS
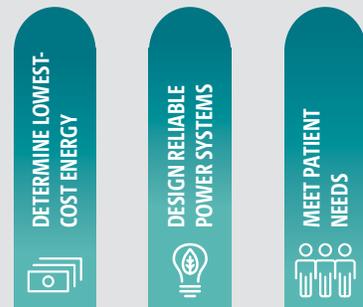
HOMER SaaS API enables rural health clinics to develop right-sized electrical power that can enable better care for patients.

Powering Health enables non-engineers to design hybrid renewable energy systems to meet the needs of specific medical equipment.
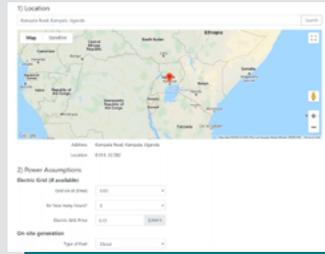
UL

Sample screenshots (right) are an example of Powering Health's analysis of power needs based on specific inputs. HOMER SaaS API enables customized web applications to:

- Seamlessly integrate HOMER into your software platform

- Streamline internal processes

- Generate leads and qualify customers

HOMER Energy by UL collaborated with World Bank's Energy Sector Management Assistance Program (ESMAP), and We Care Solar, as well as numerous experts to update Powering Health on a fast track and meet the urgent need for preparedness. Powering Health was initially created in 2011 with funding provided by U.S. Agency for International Development (USAID).

More than 250,000 users enabled by HOMER software are in over 190 countries.

Software specifics

Powering Health is one example of a customized web application using HOMER Software. It models stand-alone or grid-connected hybrid renewable energy systems that integrate batteries, diesel generators and solar panels.

In Powering Health, location look-up loads the location and solar data.

Inputs, such as electric load, can be specified.

Outputs, such as photovoltaic (PV), are displayed as graphs and tables.

Cost summaries and table of contents provide critical, easy-to-find information.

Why HOMER SaaS API?

HOMER SaaS API enables you to create customized web, mobile or desktop applications built on the power of HOMER Pro or HOMER Grid — a leading platform for optimizing distributed energy resources (DERs) and microgrids across all sectors. Companies and organizations of all sizes use HOMER SaaS API to deploy custom applications. .

For more information, visit homerenergy.com.

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