GGHH ENERGY CHALLENGE

## Towards a Low Carbon Economy: An Overview

Transitioning to efficiency and renewables can reduce ongoing energy costs, lower polluting emissions and the associated burden of disease, build resilience to climate change, and sustainably power health facilities that currently lack access to energy sources.

The Energy Challenge offers members a framework that enables them to benchmark their energy consumption, while empowering them to conserve energy and reduce emissions.

Why Energy Efficiency?

By improving energy efficiency and moving to clean, renewable energy sources, every hospital can be a leader in the transition to a low carbon economy.

Greater efficiency and transitioning to clean, renewable energy sources, such as solar and wind, can significantly reduce greenhouse gas emissions while protecting public and environmetal health
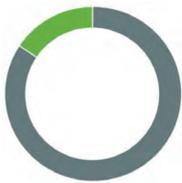
Burning of fossil fuels makes up **86%** of total global energy consumption

Are you up to the Challenge?

Challenges participants commit to:

- Track energy consumption and energy related greenhouse gas emissions.

- Set targets for increases in the use of energy from clean renewable sources such as solar and wind.

- Set targets for reductions of energy consumption and related greenhouse gas emissions in high-energy consumption health facilities.

- Improve energy access in energy-constrained settings, prioritizing clean, renewable sources such as solar and wind.

- Improve the energy efficiency of all health care facilities and equipment to reduce unnecessary, expensive energy use.

- Adopt energy efficiency technology and measures.

GGHH CONNECT

Green Health Challenges

HIPPOCRATES

GLOBAL GREEN and HEALTHY HOSPITALS

Health Care Without Harm

www.greenhospitals.net
GGHH is a project of Health Care Without Harm

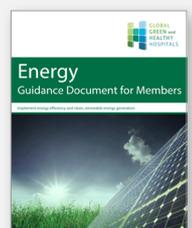## Measures Overview

Each participating institution commits to:

• Working to achieve the target level of their choice on at least **one Energy goal**

• Entering data and tracking progress in the GGHH Hippocrates Data Center

Energy Use Index (kWh/sm/yr) Reduction

Level 1	10%
Level 2	20%
Level 3	40%
Ultimate target	Carbon Neutral when combined with clean renewable energy use

All types of health care faciilties working on reducing energy consumption through increased efficiency can use this goal.

Energy Use Index or (EUI) is the measurement of energy use from multiple sources, measured in kWh, per square meter (SM), per year.

Each level is the percent reduction of the facility EUI achived in relation to the EUI level at the facility's baseline year.

Hospital EUI efficiency (Kwh/sm/yr) energy)

Level 1	500 kWh/sm/yr
Level 2	300 kWh/sm/yr
Level 3	150 kWh/sm/yr
Ultimate target	Carbon Neutral when combined with clean renewable energy use

This goal is for only Hospitals, because the energy use intensity varies widely between different types of buildings

Energy Use Index or (EUI) is the measurement of energy use from multiple sources, measured in kWh, per square meter (SM), per year.

Each level is the EUI for the hospital for the most recent year with submitted data.

Percent renewables of total energy consumption

Level 1	10%
Level 2	20%
Level 3	30%
Ultimate target	Carbon Neutral when combined with clean renewable energy use

All types of health care faciilties working on increasing the amount of the energy they use that comes from renewable sources can use this goal.

The percentate at each level is the percent of total energy used that is provided by renewable sources for the most recent year with submitted data.

For further guidance on data collection, refer to the **Energy Guidance Document** on GGHH Connect.

Energy
Guidance Document for Members

Measures Overview

HOW DO YOU SET YOUR BASELINE?

An energy baseline is a reference tool. It allows you to compare energy performance before and after a change is made to your site or system.

The baseline establishes the "before" by capturing a site or system's total energy use prior to making changes/improvements. It accounts for energy affecting factors like temperature or production volume. This is accomplished by modeling the site's performance prior to changes.

HOW TO CALCULATE YOUR ENERGY USE INDEX (EUI)?

The EUI expresses a building's energy use as a function of its size or other characteristics.

The EUI is expressed as energy per square meters per year. It's calculated by dividing the total energy consumed by the building in one year by the total gross floor area of the building (built area). And don't worry — Hippocrates Data Center automatically does the conversion to kWh for you, so you can just enter your energy use information as you get it on your utility bills.

HOW TO SET ENERGY EFFICIENCY TARGETS?

By monitoring your EUI each month/year and using the information that Hippocrates gives you, you can set tough but achievable energy usage goals that will allow you to advance between Challenge levels.

Based upon consumption data and reduction goals, you can determine options for reducing consumption, including initial costs and on-going operations costs. You will also be able to determine which reduction projects to implement, and over what time, in order to best achieve overall facility goals.

WHAT ARE RENEWABLE ENERGY SOURCES?

Renewable energy is energy that is generated from natural processes that are continuously replenished. This includes sunlight, geothermal heat, wind, tides, water, and various forms of biomass. This energy cannot be exhausted and is constantly renewed.

Renewable energy plays an important role in reducing greenhouse gas emissions. When renewable energy sources are used, the demand for fossil fuels is reduced. Unlike fossil fuels, non-biomass renewable sources of energy (hydropower, geothermal, wind, and solar) do not directly emit greenhouse gases.

Why Energy Efficiency?

The health care sector consumes significant amounts of fossil fuel energy, thereby contributing to the health impacts of both air pollution and climate change. Meanwhile, in a number of developing nations, many health facilities lack access to the energy necessary to power basic health services.

As centers of healing whose priority is to first, do no harm, preventing these risks to their community and environment is imperative for health care facilities.

Aligning with UN Sustainable Development Goals and the UN Sustainable Energy for All initiative, the GGHH Energy Challenge provides a three-pillar framework for the health sector to address these complex energy issues.

Reducing Emissions

Global Green and Healthy Hospitals is challenging members around the world to **take on measurable actions to transition to energy efficiency and renewables.**

The Energy Challenge offers members a framework that enables them to benchmark their energy consumption, while empowering them to conserve energy and reduce emissions.

Why Should Members Take on this Challenge?

In the process of healing patients every day, the health care sector uses a significant amount of energy.

By using less energy and obtaining it from cleaner sources, hospitals can reduce the amount of emissions they release and lower the risk of respiratory illness. In addition to offering health benefits, energy conservation benefits a hospital's bottom line.

Participating institutions will receive international recognition and awards as they achieve the targets and progress through the levels of the Energy Challenge.

Green Health Challenges

Get Started

Project startup

Are you already working on the Energy Goal or interested in getting started? *Take on the Challenge!*

1.
Access GGHH Connect at www.gghhconnect.net. Log in using your email and password.

2.
Visit the Green Health Challenges Community to access the Energy Challenge registration form to enroll your institution and select your goal target level.

3.
Access the Hippocrates Data Center by clicking on the link on the right hand side of your GGHH Connect Homepage.

4.
On your Hippocrates Data Center's homepage, click on the link/icon that says "Data Forms".

5. Scroll down and click START under Energy | Data Form to begin submitting data.

6.
Define and submit data for your baseline year. After submitting this data form, submit data for your most recent year to report progress achieved.