



AGI
ENERGY
SERVICE CENTRE
Sustainable Energy for Profitability

ENERGY EFFICIENCY IN THE HEALTH INDUSTRY

Ghana announced that in pursuit of the government's health infrastructure drive, the Health Ministry awarded contracts for the construction of 101 district hospitals, seven regional hospitals, and three Psychiatric Hospitals(1). As most of the

governmental budget and also several private investments are allocated to health sector, it is more than ever the time to incorporate energy efficiency into these large programs to optimize the operating costs of these facilities and reduce the burden on the population.

01 You can't manage what you can't measure

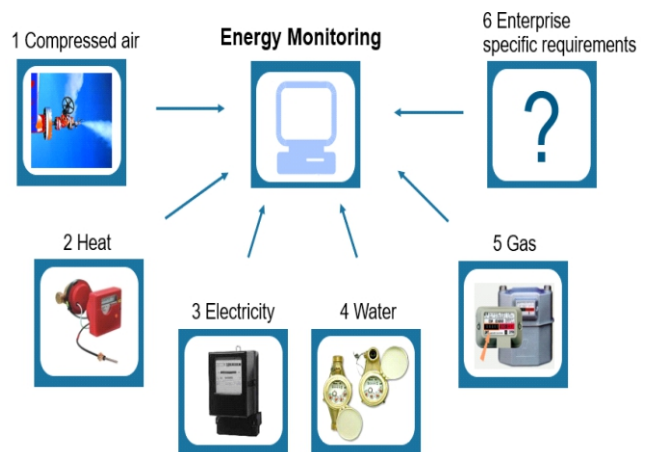
This axiomatic statement holds true in all aspects of life; it is hard to manage one's weight without a scale and it's hard to manage how fast one is

traveling without a speedometer. Like-wise, it is hard to manage one's energy costs if one does not know how the energy is consumed.

02 Energy audit

Significant reductions cannot be achieved unless a measurement campaign is conducted and the energy balance is analyzed, challenged, and optimized.

Doing an energy audit is a task that requires significant expertise and knowledge regarding the performance of the buildings and the requirements of the hospitality operation.



03 Energy efficiency measures applicable to the health industry

Health industry managers and staff need to improve their knowledge on how to reduce energy consumption in their facilities and produce real and sustainable economic development of their facilities. An energy audit will demonstrate the energy efficiency measures which deal with the efficiency of any hospital or clinic business. Energy efficiency actions carried

out for the building and the operations both combine to produce the required improvements. Creating an energy team where the members are from individual departments and appointing an energy manager who will champion the training of staff in energy efficiency in all areas of the establishment are among the most successful approaches taken by the health industry.

(1) Ministry of health of Ghana:

<https://www.moh.gov.gh/president-cuts-sod-for-biggest-health-infrastructure-drive-in-ghana/>

Implementing daily reading of electricity, water and diesel consumption and publish it to all departments on a weekly basis while implementing the under listed low hanging fruits of the audit recommendations including:

- Use of more daylight in offices and corridors and whitening the walls and ceilings
- Airing room where applicable before turning on the Air Conditioning system
- Turning off lights, office equipment and air condition units (when occupants leave rooms for meetings / are absent)

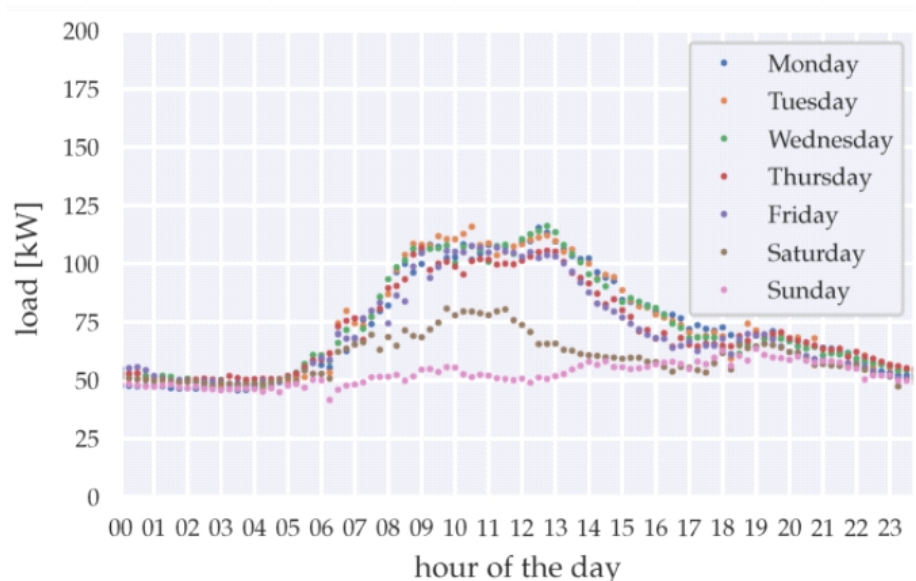
- Improve the knowledge of the maintenance staff by appropriate training
- Control of air exchange between the most aseptic areas to the most common ones
- Optimize the air conditioning systems for an optimal use of the systems especially in the surgical operating rooms

These low and no-cost measures pay for the costs of the energy audit during the first year and can remain as showcase actions for the energy efficiency policy of the establishment.

04 Improving the comfort and the public perception

The Energy auditor will assess the needs of the buildings, the occupants, the staff and the current operations to identify where energy savings can be achieved. While doing so, they can challenge and identify most of the time the quality of the services of the day-to-day operations through eyes of an outsider resulting in an improvement of the facility. Usually, this is perceived as added-value by the managers as it will help the facility to boost its exposure as 'green venture'.

The health industry is one of the fastest growing sector in Ghana and it needs to integrate new technologies and approaches for controlling its expenses including energy costs while reducing overall environmental load. Likewise in Canada,



hospitals and clinics can implement recurrent EE programme re-investing part of their savings achieved every 3-5 years in new EE projects to adjust further their expenses to the real needs .

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