

International Conference on

Green Energy & Expo

September 21-23, 2015 Orlando, USA

Optimizing energy efficiency with centralized facility management

Tom Willie
Blue Pillar Inc., USA

Energy efficiency programs for businesses and facilities offer important financial and environmental benefits. The concept of energy efficiency is easy for businesses to grasp but many are unaware of how to best gather energy data from their existing infrastructures to make informed energy management decisions preventing them from operating at maximal efficiency. This session will cover technology innovations that make it possible to create a Digital Energy Internet of Things (IoT) network that connect, controls and gathers data from core facility and electrical equipment regardless of make, model or vintage. Once connected, facility managers are able to control an entire facility's equipment portfolio, execute critical power system compliance and readiness testing, monitor critical powers systems and automate energy efficiency programs such as Demand Response. Using Centralized Facility Management (CFM), a new operational management trend, facility operators and corporate managers can monitor their connected equipment across geographically dispersed facilities and holistically view the energy efficiency and resiliency all of their dispersed operations. This session will discuss how an IoT network and CFM platform can help businesses leverage the power of asset connectivity, control and data management to improve energy resiliency and efficiency across all facility operations.

scott.bender@bluepillar.com

Energetic, exergetic analyses and development of characteristic equation for evacuated tubular collector (ETC) under constant collection temperature mode of operation

Vihang Garg², R K Mishra¹ and G N Tiwari²
¹Hi-Tech Institute of Engineering and Technology, India
²Indian Institute of Technology Delhi, India

In this paper, an analysis of a general electric U-shape evacuated tubular collector (ETC) for constant collection temperature mode of operation will be carried out. Thermal energy gain and exergy gain have been evaluated by considering the four types of Indian weather conditions for the climatic condition of New Delhi, India. Further, the characteristic curve of the proposed system will also be developed for at constant collection temperature. It is expected that behavior of an instantaneous thermal efficiency and overall exergy efficiency will have same trend. However, exergy gain will be having lower value than the thermal gain as expected.

vihanggarg@gmail.com