

Area : 8 PV Systems Including BOS Components

ENERGY MANAGEMENT WITH 7kWp PV SYSTEM AND IOT MONITORING AT SUKSASONGKROH CHIANG MAI SCHOOL

Worrajak Muangjai¹, Wichan Jantee¹, Wathanyu Wannaprom¹

¹Rajamangala University of Technology Lanna, Chaing Mai, Thailand

This research presents an approach to energy management. By focusing on energy management and PV solar rooftop 7kWp grid inverter was promoted by a monitoring system to read the electricity consumption. The result of energy managing with energy committee's policy are reduce energy consumption about 15% and with solar PV 7kWp grid inverter reduce more 2%. shown in Figure.1 The monitoring system using Internet of Things (IoT) with Raspberry Pi3 has been experimentally proven to work satisfactorily by monitoring in realtime the parameters successfully upload through the internet. The designed system can monitors the parameter of solar PV grid inverter and manipulate the data, plot and generate total units generated per month. It also stores all the parameters in the cloud (Thinkspeak) in a timely manner. But most important energy reduction approaches come from helping to save energy. Because the power of PV grid inverter is just a supplement.

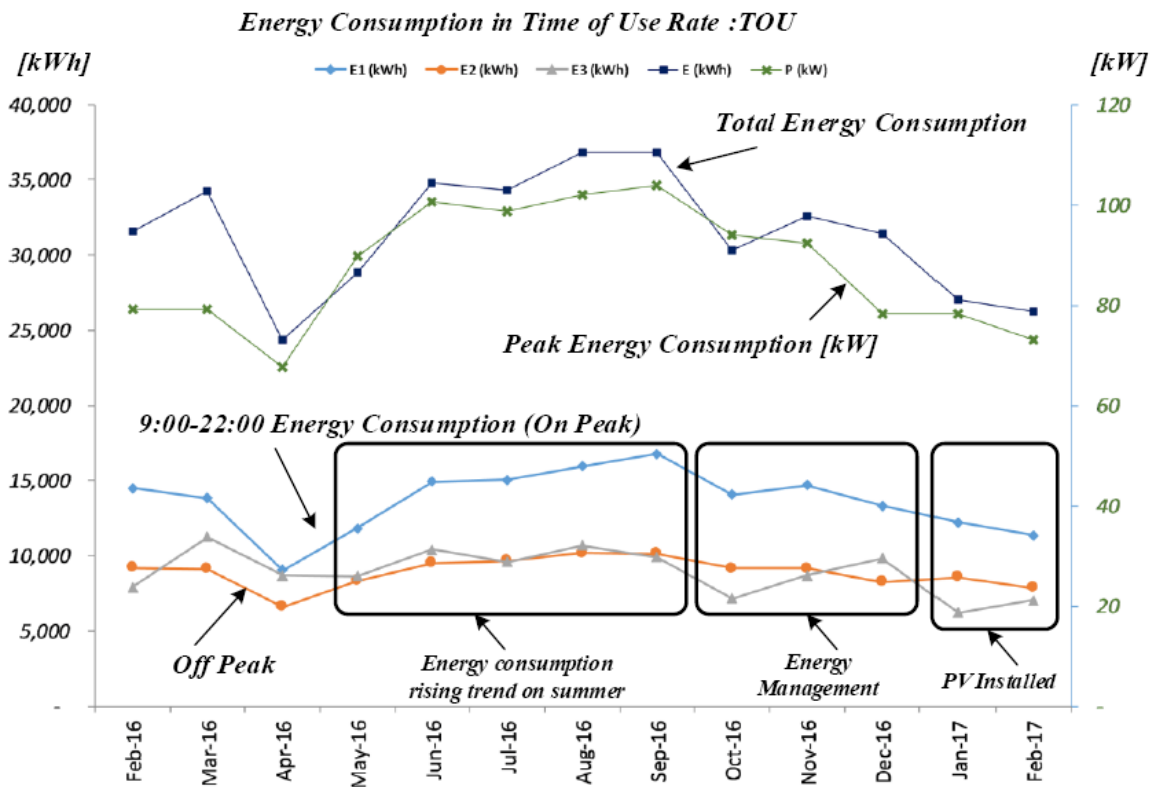


Figure 1: Energy consumption decrease and lower before PV system and management installed of Suksasongkroh Chiang Mai School.