A Guide for Enhancing Existing Plant Electrical Consumption Monitoring System

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An effective power monitoring system is essential for an accurate and efficient electrical energy management. One cannot manage properly what is not monitored properly. The purpose of an electrical energy management system is to give the plant operational team an accurate, complete, and effective tool with the goal to operate the plant’s production equipment at the most efficient and productive manner as possible. A third-party electrical engineering firm, through experience from past projects, have estimated, for the Ash Grove Cement plants, annual electrical power consumption savings from 1% to 5% resulting from accurate and effective power metering.

This presentation will discuss the assessment process to determine what kilowatt (kW) signals already exist for power consumption monitoring, which plant assets should be targeted for monitoring, the types of devices that are best applicable for the plant’s monitoring needs, the most effective HMI visual aids to implement, and in-house and third-party labor that will be needed to install the system. Also, the similar issues and differences will be discussed between implementation of power monitoring systems in CRH cement plants globally in North America, Europe, and in the Philippines.

The contents of this presentation will serve as an effective guide for improving the existing plant electrical power consumption monitoring system or for assisting with developing a new monitoring system.