

# **Florida State University**

## **Utilities Department**

Best Management Practices Guidelines

Revised 06/30/10

## Introduction

A Best Management Practices (BMP) guide is not a policy manual. A policy manual deals with more rigid instructions that are generally *required* within an operation. The Best Management Practices guide serves as a tool to identify the *preferred* methods employed by an organization for problem resolution or planning.

A policy may be based on requirements by the National Electric Code, Homeland Security, or FSU policy. A Best Management Practice guide identifies the best known practices. Since it focuses more on the ideal solution to a problem, the recommendations are subject to greater scrutiny regarding a cost benefit analysis.

For example, a facility best management practice may state that we should use a certain type of lighting for certain applications to reduce kwh usage. After a site specific cost analysis, the area may not be cost effective to modify. Past upgrades may have reduced energy consumption to a level where it is not state of the art, but the cost would outweigh the financial benefits.

A Best Management Practices (BMP) guide is a living document. It is designed to be updated as technology changes. The primary purpose is to summarize organization findings and document the results.

## **Electrical System Management Best Practices**

BMP02

Revision: 06/30/10

### **Power Factor**

BMP02.001

The facility power factor should be maintained greater than 93%. New facilities should be constructed as to provide a power factor equal to or greater than the campus average.

### **Building Automation Systems**

BMP02.002

All new buildings must be connected to the central control center via Siemens Apogee or BAC-Net capable panels.

### **Lighting (General)**

BMP02.003

All new lighting systems must comply with campus lighting standards. Efforts should be made to include best available energy saving technology when cost effective (<7 year simple return).

### **Lighting Controls**

BMP02.004

All buildings should be equipped with lighting controls. The lighting controls should have the following minimum features. The following lighting control technologies should be considered in new design and renovations:

- Wired addressable lighting
- Wireless addressable lighting
- BacNET or P1 connection to the Siemens Apogee system
- Occupancy sensors
- Zone Controls
- Photovoltaic for outdoor lighting

In addition, the following areas of potential savings should be investigated and included if cost effective.

- Daylight harvesting
- Task lighting control
- Demand limiting dimming controls

**Building Metering**

BMP02.005

All buildings should be sub-metered. In addition, if the building houses spaces used by different cost centers, those circuits should be sub-metered.

**Infrared Inspection**

BMP02.006

All critical circuits, as defined by the campus utilities electrical engineer, should be infrared inspected annually.