

# Texas Facilities Commission's Facility Management Strategic Plan

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## Maintain, Operate & Manage

- 54 Office Buildings
- 10 Warehouses
- 55 Parking Lots
- 4 Central Utility Plants

## Utility Costs (approx)

- \$15 million – Elec
- \$2.3 million – Gas
- \$2.1 million – Water

## Deferred Maint. Plan

- \$400 million
- 10-year plan
- Started 2008

# Building Operations & Plant Management

**Mission.** The Division of Building Operations & Plant Management is strongly committed to identifying and implementing *practical* ways of managing resources with a commitment to continuous improvement.

**Vision.** The Division of Building Operations & Plant Management leads the way in providing the highest quality facilities and utility services to state agencies with a commitment toward *fiscal responsibility* and *stewardship of resources*.

# Facility Strategic Plan

- High Performance Building Approach
  - Envelope
  - Load Reduction
  - (Re)Design
  - Advanced Tactics
- Building Automation
  - Sub-metering
  - Controls
- Commissioning
  - Assessment
  - Continuous
- Facility and Energy Management System
  - Facility Management
  - Energy Management

# High Performance Building Approach

## Building Envelope

- Window Film
- Roof

## Load Reduction

- Motors/VFD
- Lights
- Equipment

## (Re)Design

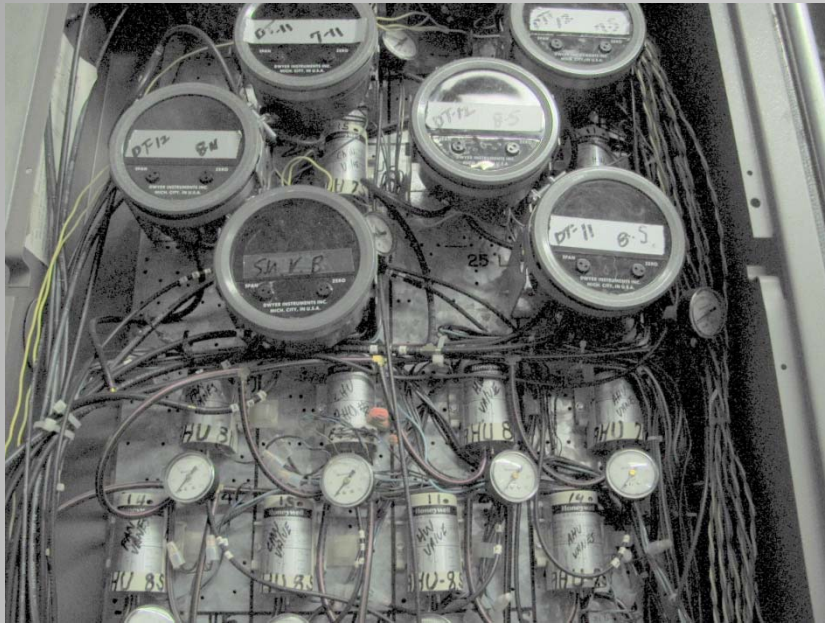
- Loops
- Panels
- Distribution

## Advanced Tactics

- TES & Loop
- Load Shedding



# Pneumatic



# DDC



# Building Automation

## Pneumatic

- Pneumatic compressor and air distribution piping.
- Controls tend to drift out of calibration.
- Susceptible to leaks.
- Compressor is a single point of failure.
- Reconfiguration requires hardware and piping.
- Can not be remotely monitored.
- Manual intervention required to make adjustments.

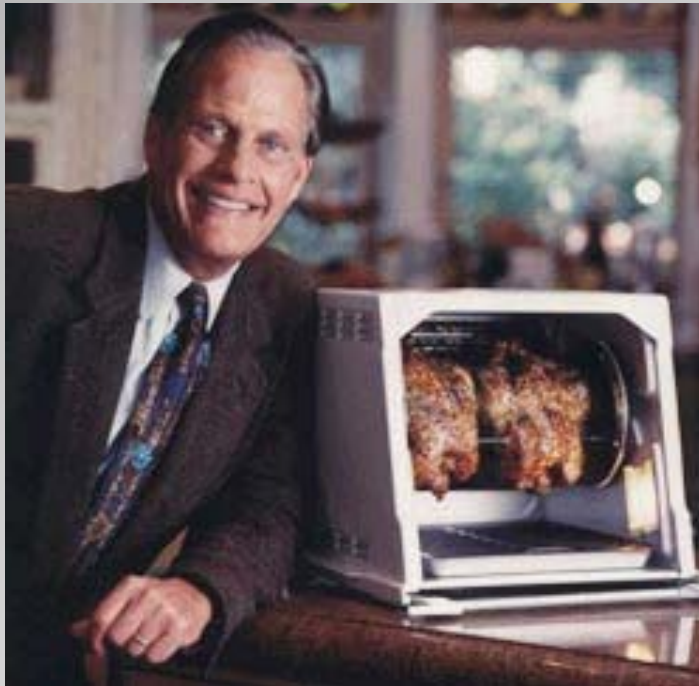
## DDC

- No pneumatic compressor or air distribution piping.
- Can be remotely monitored, adjusted or (re)configured.
- Software calibration.
- Controls are distributed, so no single point of failure.
- Precise control of equipment.
- Requires less physical space.
- Reduces utility cost.

# Building Automation

## Commissioning

If you treat your buildings like a RONCO Rotisserie...expect to spend money on utilities.



What is Commissioning?

- Commissioning
- Re-commissioning
- Retro-commissioning
- Continuous Commissioning



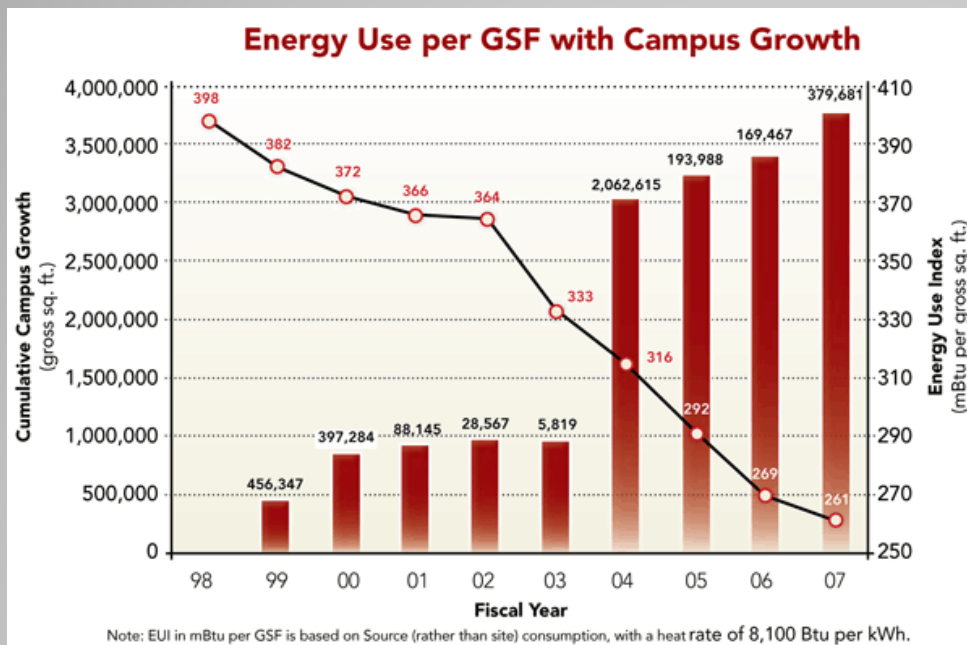
## Commissioning

### Assessment

- 30 buildings
- CC Opportunities
- O&M Improvements
- Energy/Capital Improvement Opportunities
- Quick Payback

### Implementation

- Levering DM funds with ARRA
- M&V
- Coordination with DM
- Coordination with Building Automation Project



- Current Systems
  - Work order system
  - Facility Condition Assessment
  - Building Automation Systems
  - Project Management
  - Drawings on File
  - Load Profiler

...and other disparate systems.

## Facility & Energy Management System



- Facility Management
  - CMM
  - Drawings/Documents
  - Capital Budget
  - Facility Condition
  - Project Management
  - Service Level Agreements
- Energy Management
  - Sub-metering
  - Trending
  - Commissioning
- Portal/Dashboard
  - Communication
  - Management
  - Visibility

# Facility & Energy Management System

# Q&A

**Texas Facilities Commission**