



An Energy-Efficiency Workshop and Exposition

Orlando, Florida

Getting Ready.....

For Technology Changes

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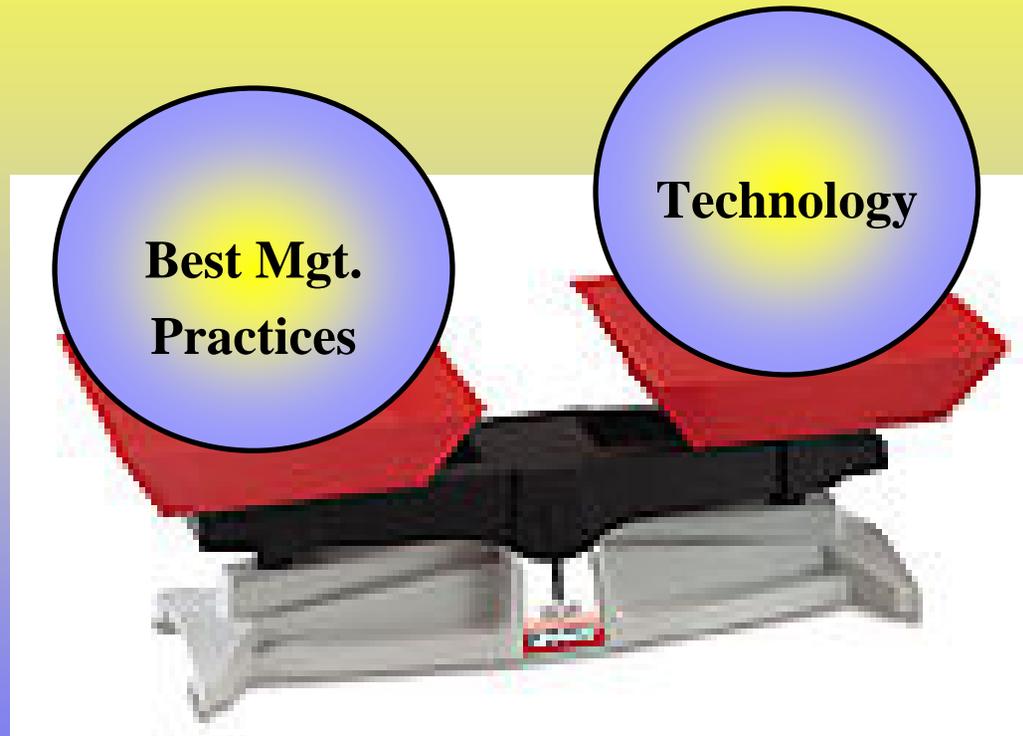


Topics we will cover

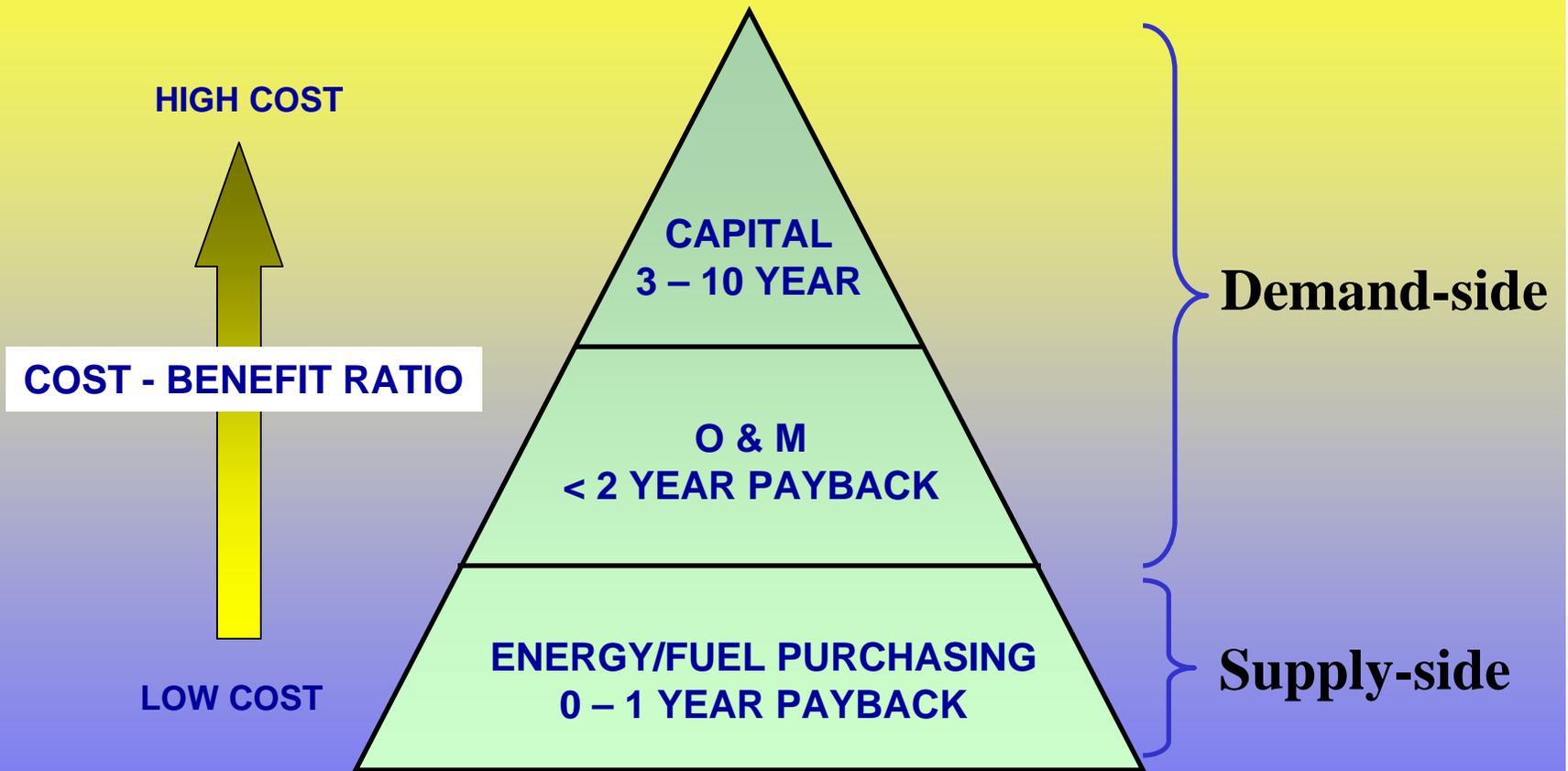
- Perspective on energy management
- Learning from mistakes
- Top 10 reasons new technologies fail
- Strategic Planning



Balance Management & Technology



Prioritize Appropriately



Move up the opportunity hierarchy

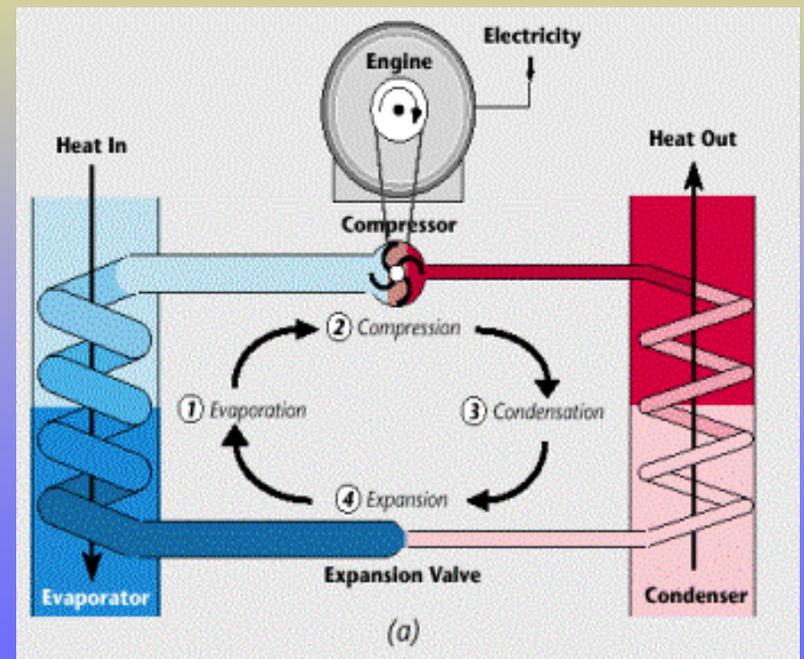


Management vs. Technology Fix

- **Management Fix:** institution of an integrated approach that implements and preserves improvements
- **Technology Fix:** purchase of new equipment to solve energy crisis

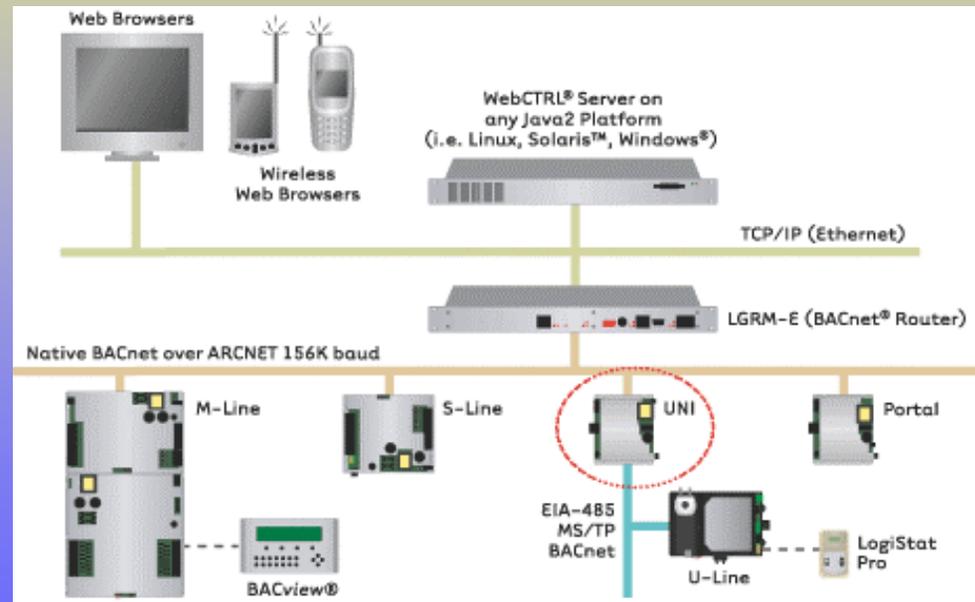
Examples

Technology Fix: Textile dye house installs heat pump heat recovery system with expected 35% energy cost savings. System abandoned due to lint build-up on coils.



Examples

Technology Fix: School System uses state \$\$ to install new building automation system. After 2 years, all set points overridden and all benefits are abandoned.



Top 10 reasons.....

Plan

- 
- A large white circle with a vertical and horizontal line through its center, dividing it into four quadrants. The quadrants are labeled with the PDCA cycle: "ACT" in the top-left, "PLAN" in the top-right, "CHECK" in the bottom-left, and "DO" in the bottom-right. The text of the list is overlaid on this diagram.
1. **Dazzled by technology promises / fail to plan**
 2. **Disconnect between supply/demand**
 3. **Failure to know organizational capabilities**
 4. **O&M requirements ignored**
 5. **Inadequate risk analysis**

Top 10 reasons.....

Do / Check

- 
- A circular diagram representing the PDCA (Plan-Do-Check-Act) cycle. The cycle is divided into four quadrants by a vertical and a horizontal line. The top-left quadrant is labeled "PLAN", the top-right "DO", the bottom-left "CHECK", and the bottom-right "ACT". Four white rectangular markers are placed at the intersections of the lines and the circle's perimeter. The text "Top 10 reasons....." is overlaid on the diagram.
- 6. Inadequate M&V
 - 7. Lack of training
 - 8. No performance checks

Act

- 9. Lack of procedures
- 10. No organizational sustainability



Technical/Management Interaction

Technical

- **PLAN**
 - Baseline
 - Track
- **DO**
 - Projects
 - Assessments
 - Design
- **CHECK**
 - M & V
- **ACT**
 - Procedures
 - Process Control

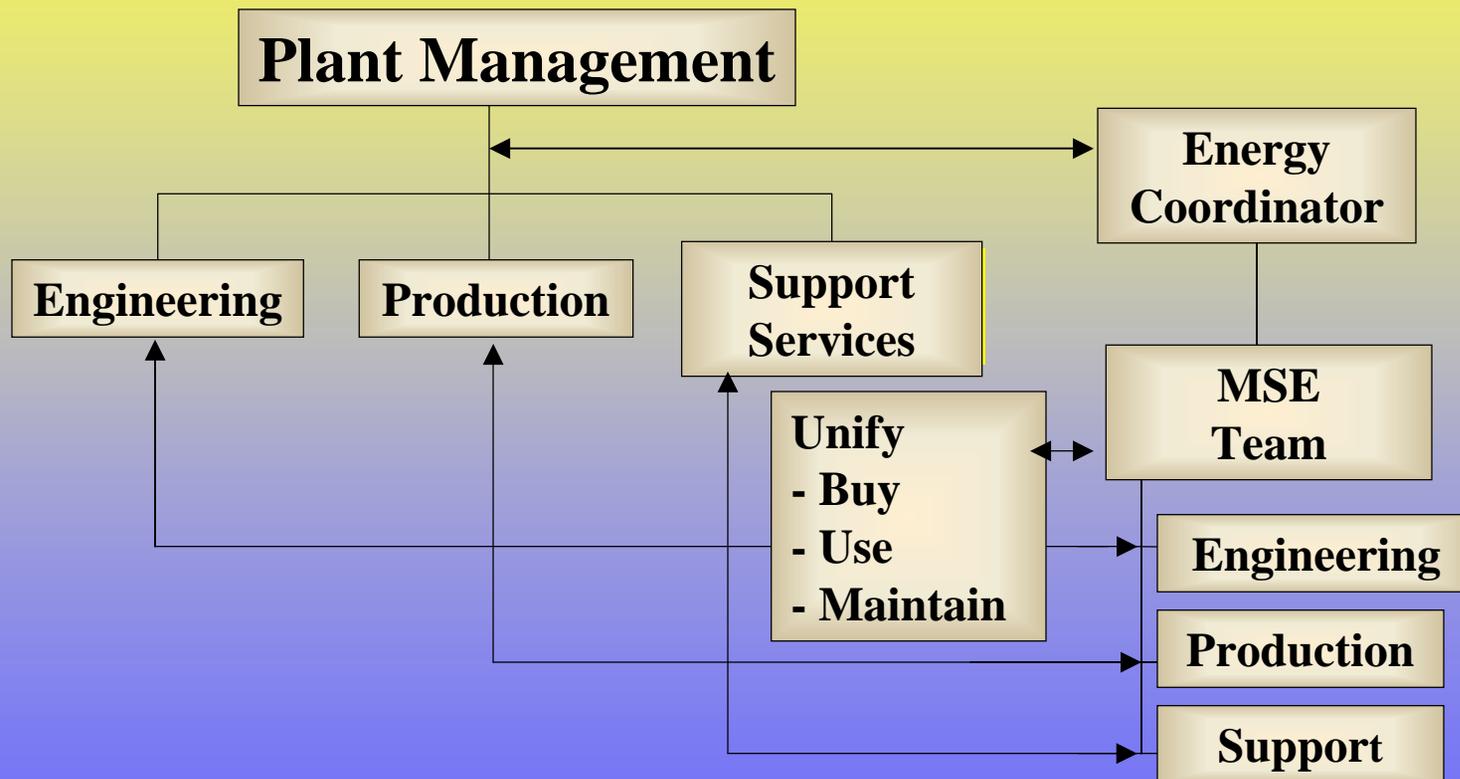
Managerial

- **PLAN**
 - Policy/Goals/Targets
 - Resources
- **DO**
 - Training
 - Documentation
 - Communication
- **CHECK**
 - Internal Audits
- **ACT**
 - Management Review
 - Corrective/Preventive Action
 - Incentives



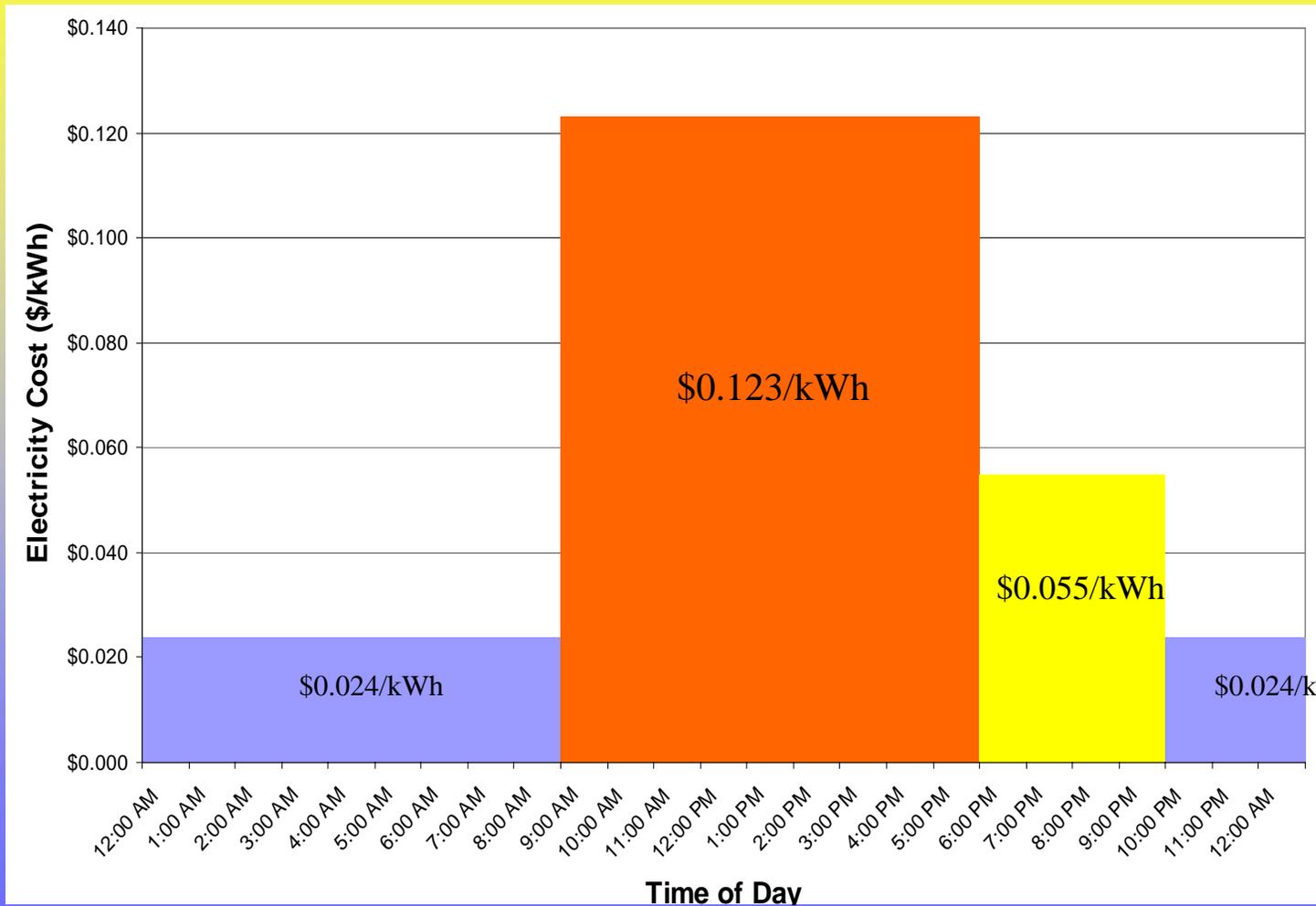
Energy Organization

Energy team must cross organizational boundaries





Know your price signals

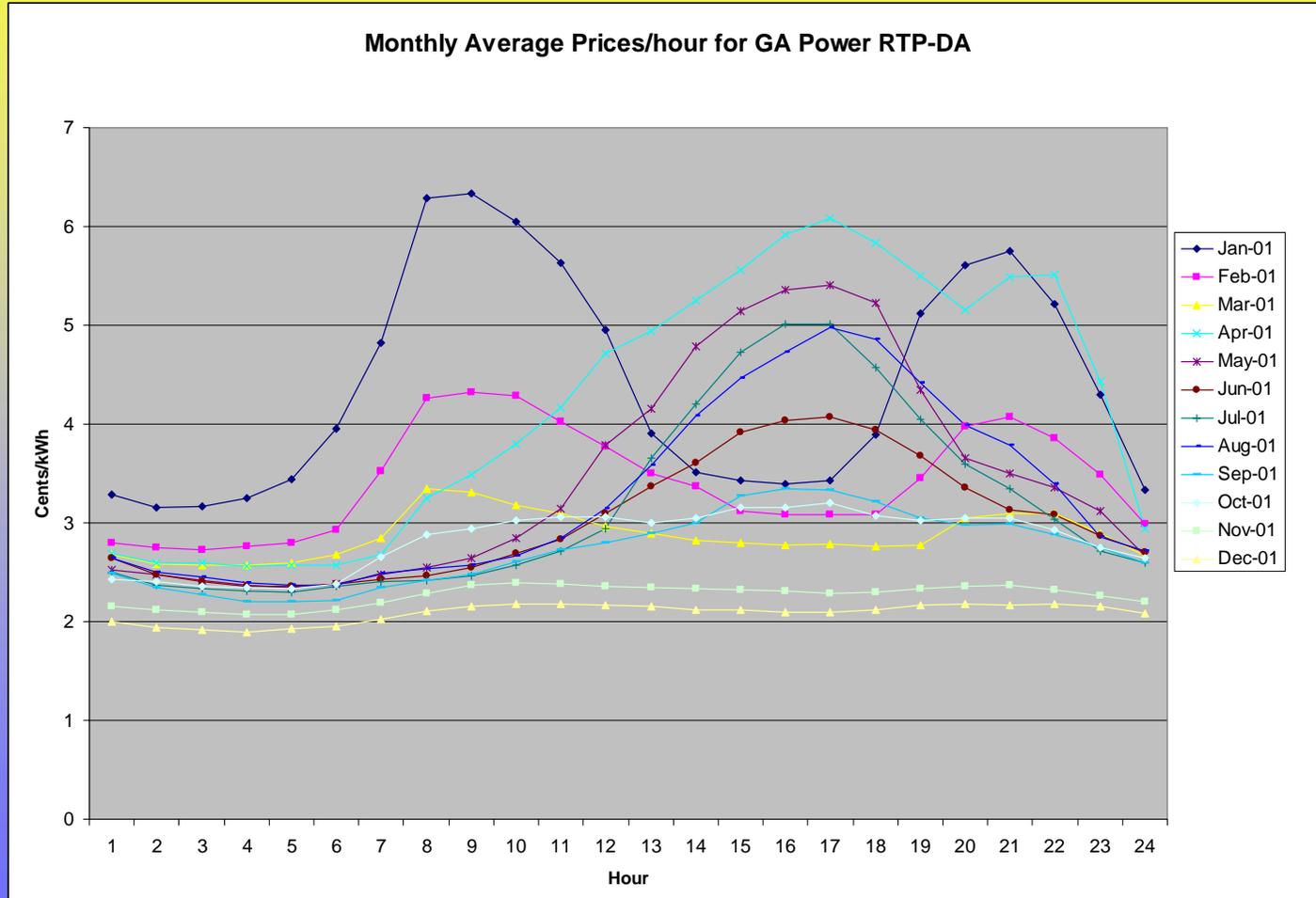


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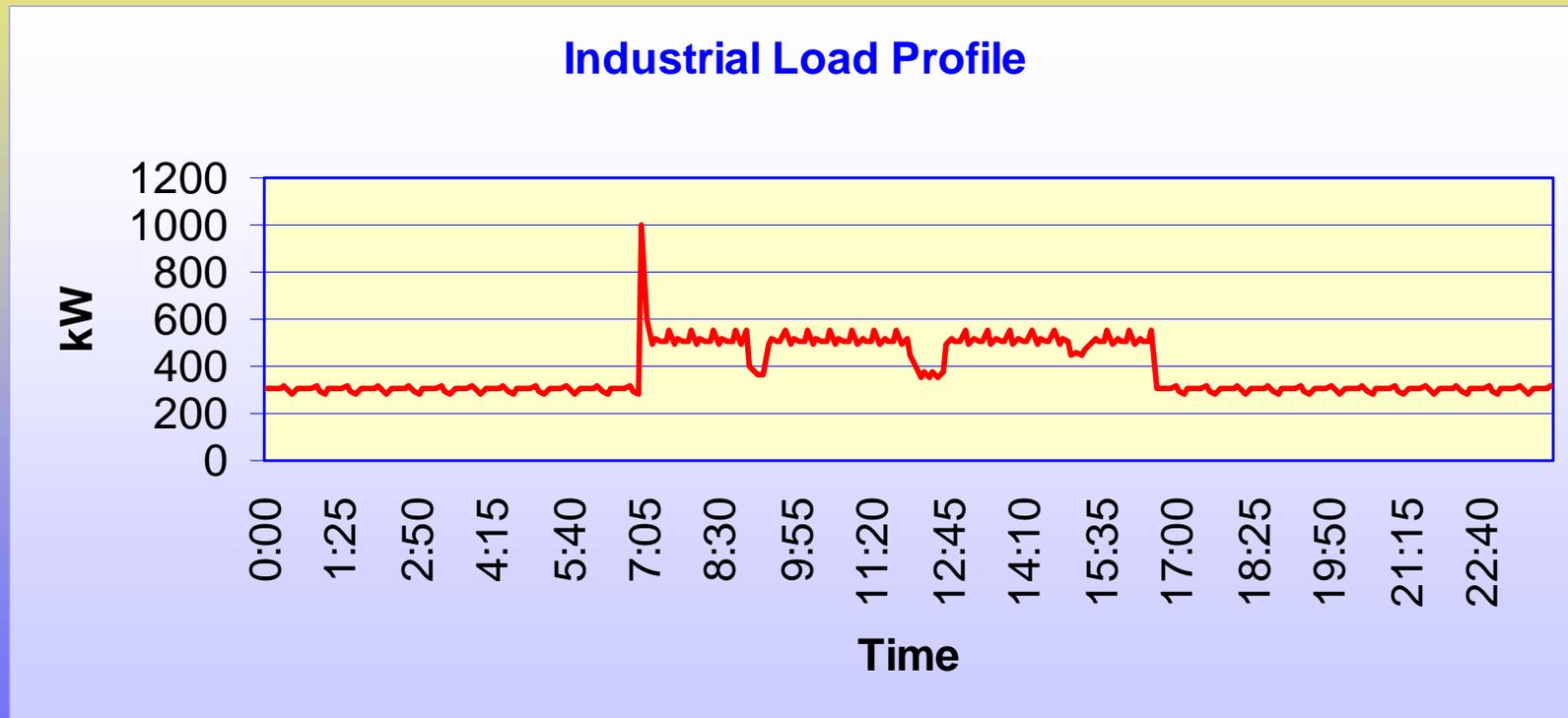
Know your price signals



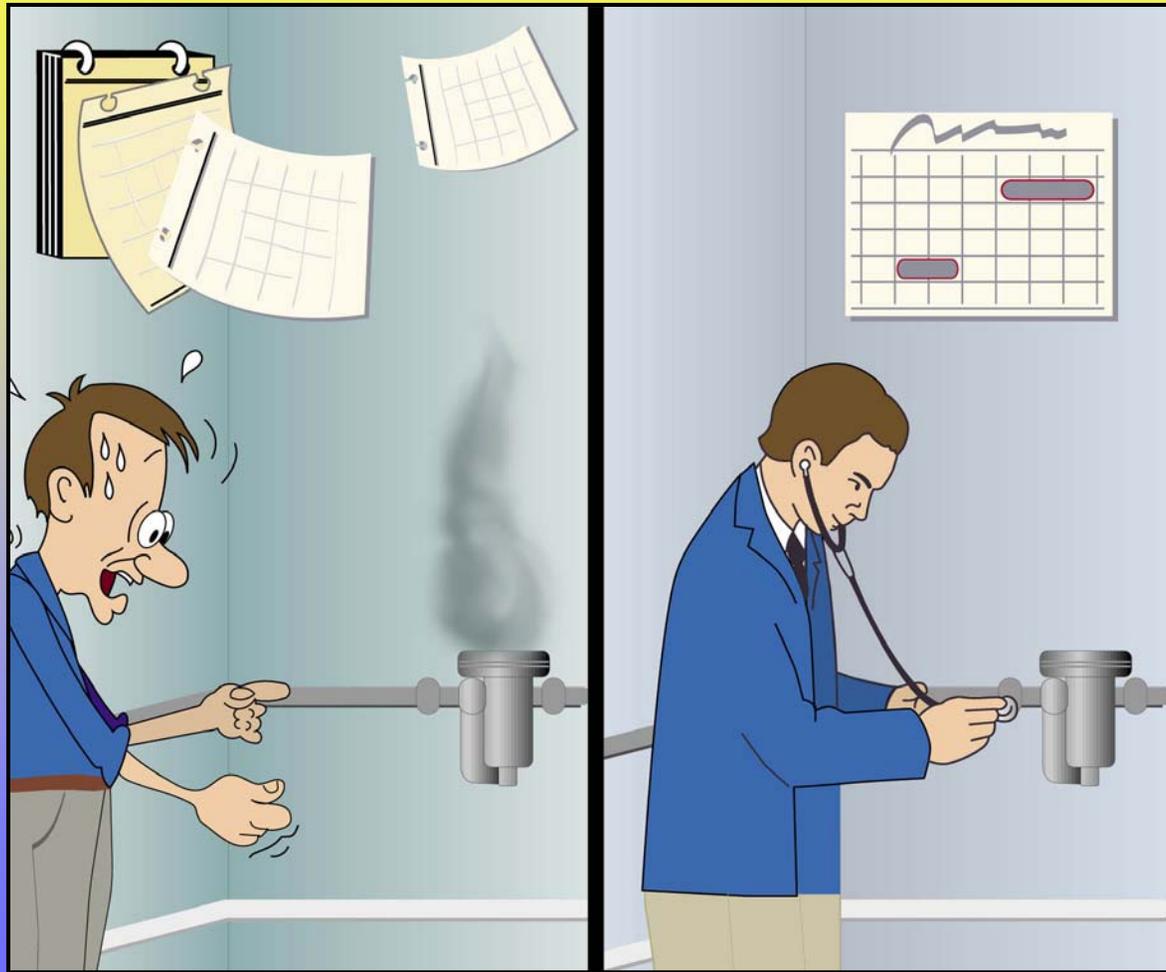


Know Yourself

Interval data



Plan for O&M





Check - check - check

INTERNATIONAL PERFORMANCE MEASUREMENT & VERIFICATION PROTOCOL

- MVP
- ORGANIZATIONS
- STATE PLANS
- COMMITTEES
- DOWNLOADS
- CONTACT US

NEW
M&V CERTIFICATION PROGRAM

The banner features a background of a large, semi-circular scale with the letters 'V' and 'P' on it. Below the scale, there are several small icons representing different aspects of the program: a computer monitor, a control panel, a person, a document, and a mobile phone.



Close the loop



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Get Help

Partner with other energy organizations

- FEMP / DOE
- Universities
- Consultants
- Other energy managers in organization
- Utilities
- ESCOs



Management & Technology

Adoption of technology should be tied to management of the selection process.

