

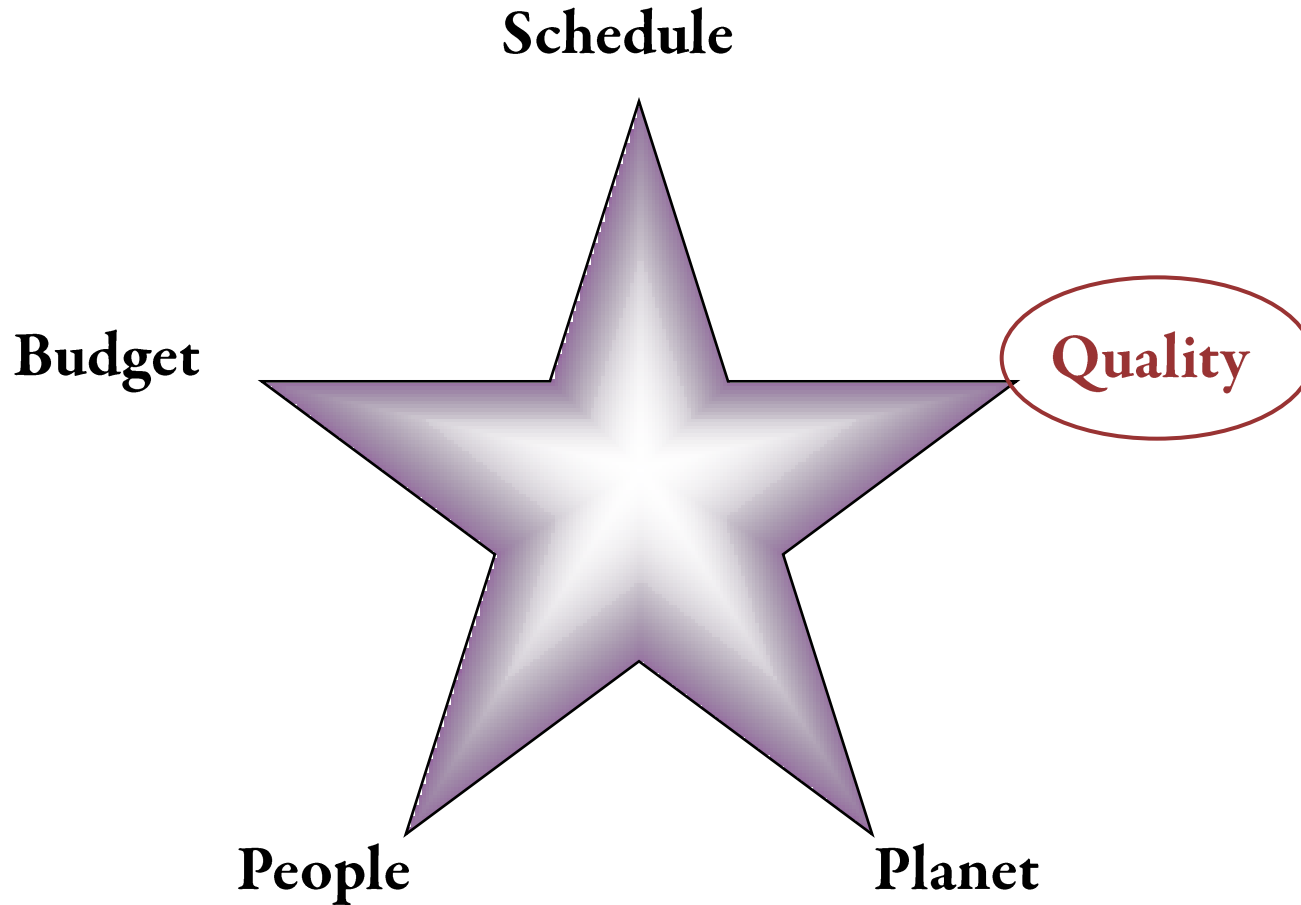
Commissioning & Energy Management

Presented To
**Society for the Preservation
of Natural History Collections**

Presented By
Rebecca T. Ellis, PE, LEED® AP, CCP, CxA
May 25-26, 2007

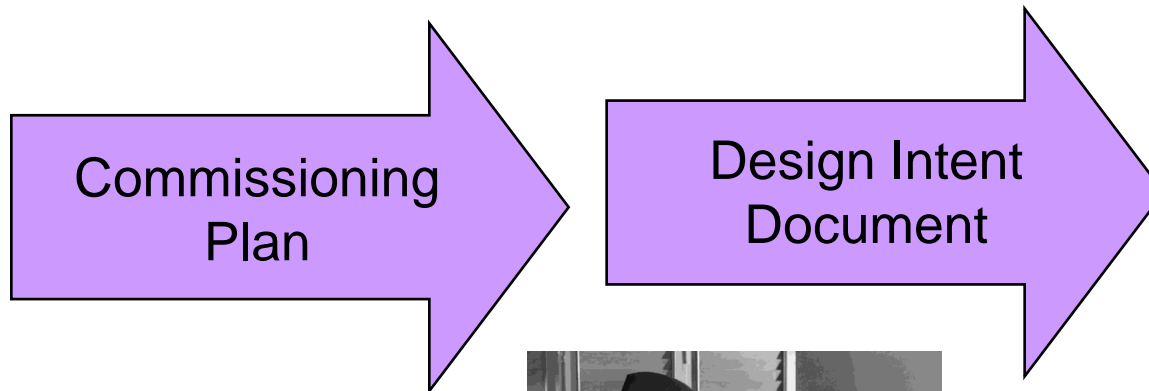


Commissioning Philosophy



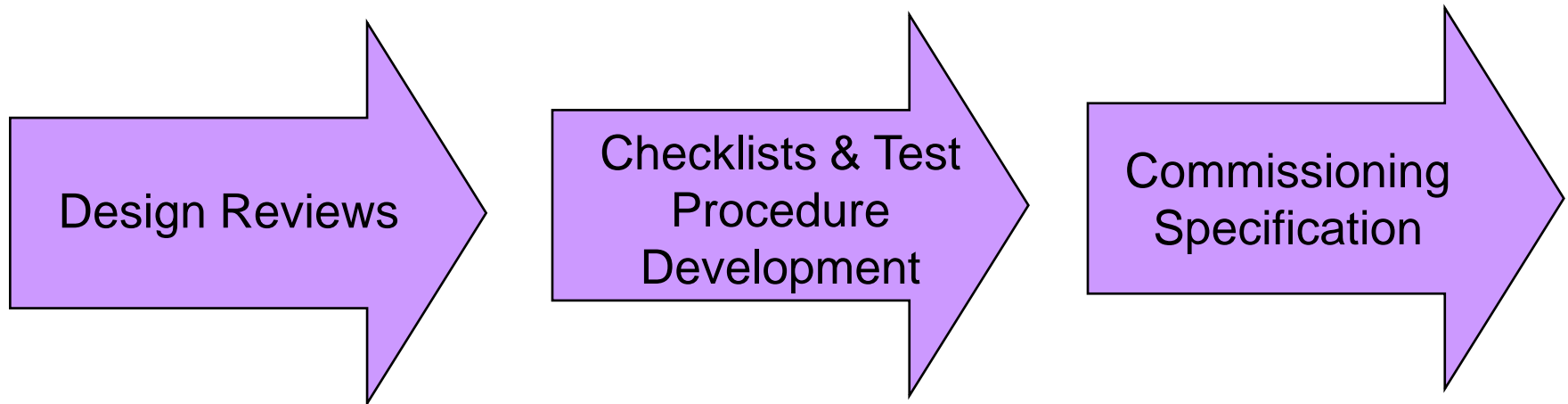
Commissioning Process Overview

■ Pre-Design Phase Activities



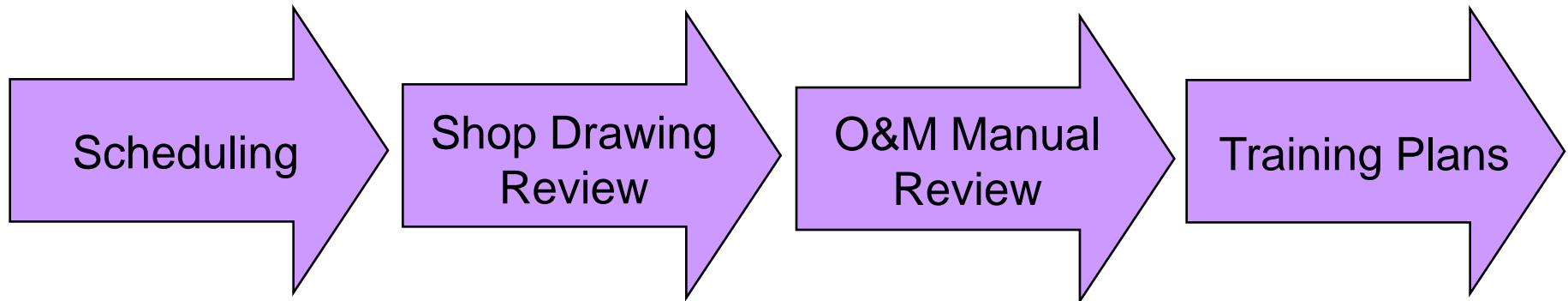
Commissioning Process Overview

■ Design Phase Activities



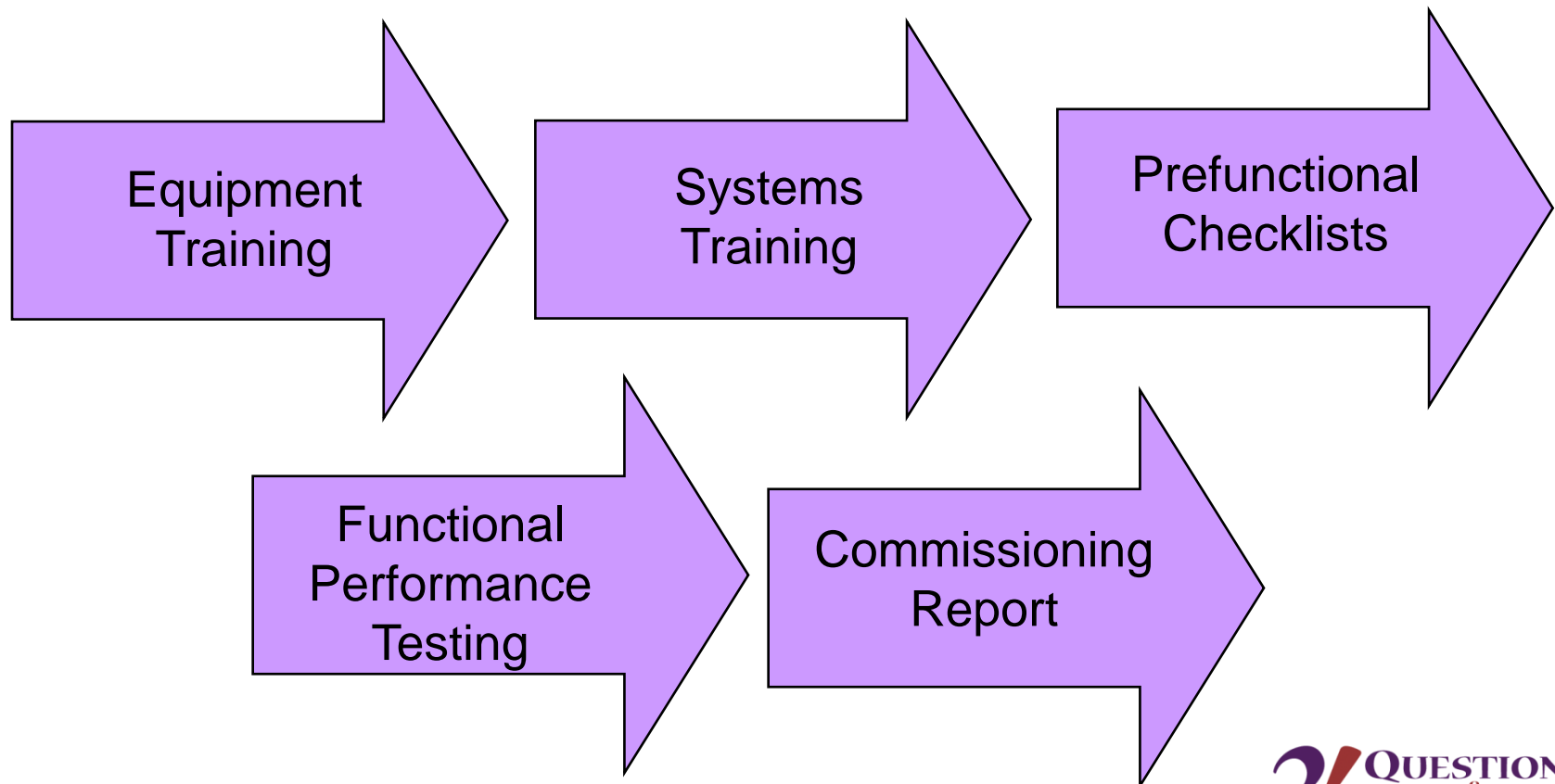
Commissioning Process Overview

■ Early Construction Phase Activities



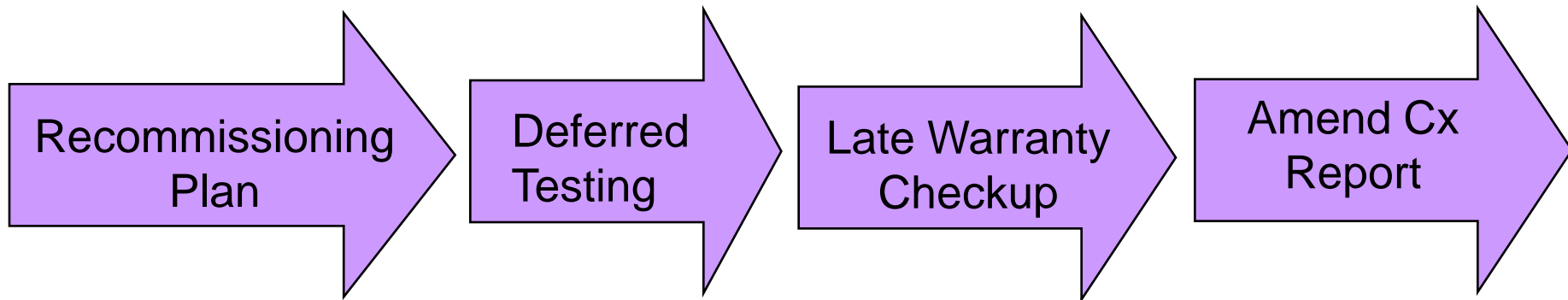
Commissioning Process Overview

■ Testing & Training Phase Activities



Commissioning Process Overview

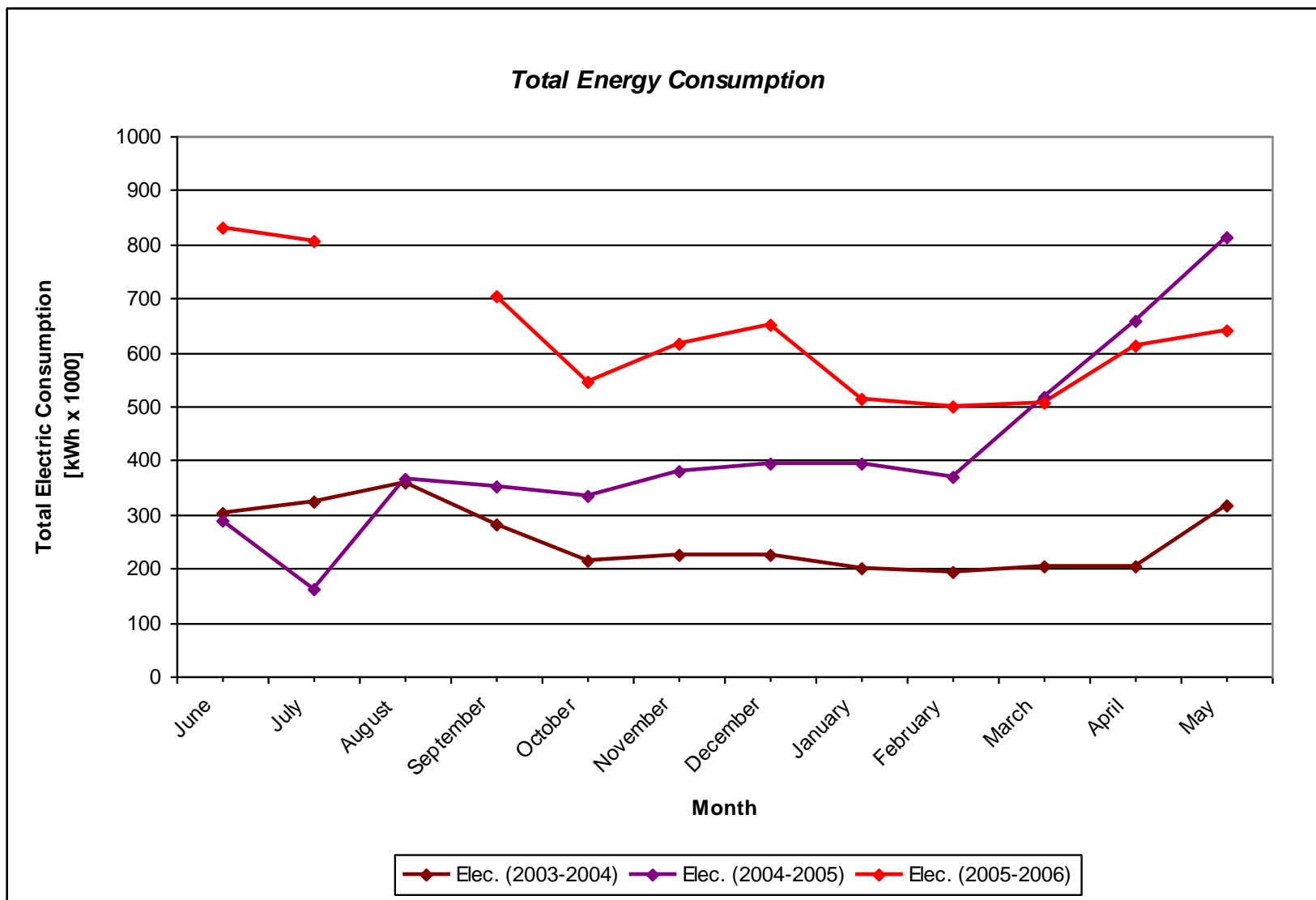
■ Warranty Phase Activities

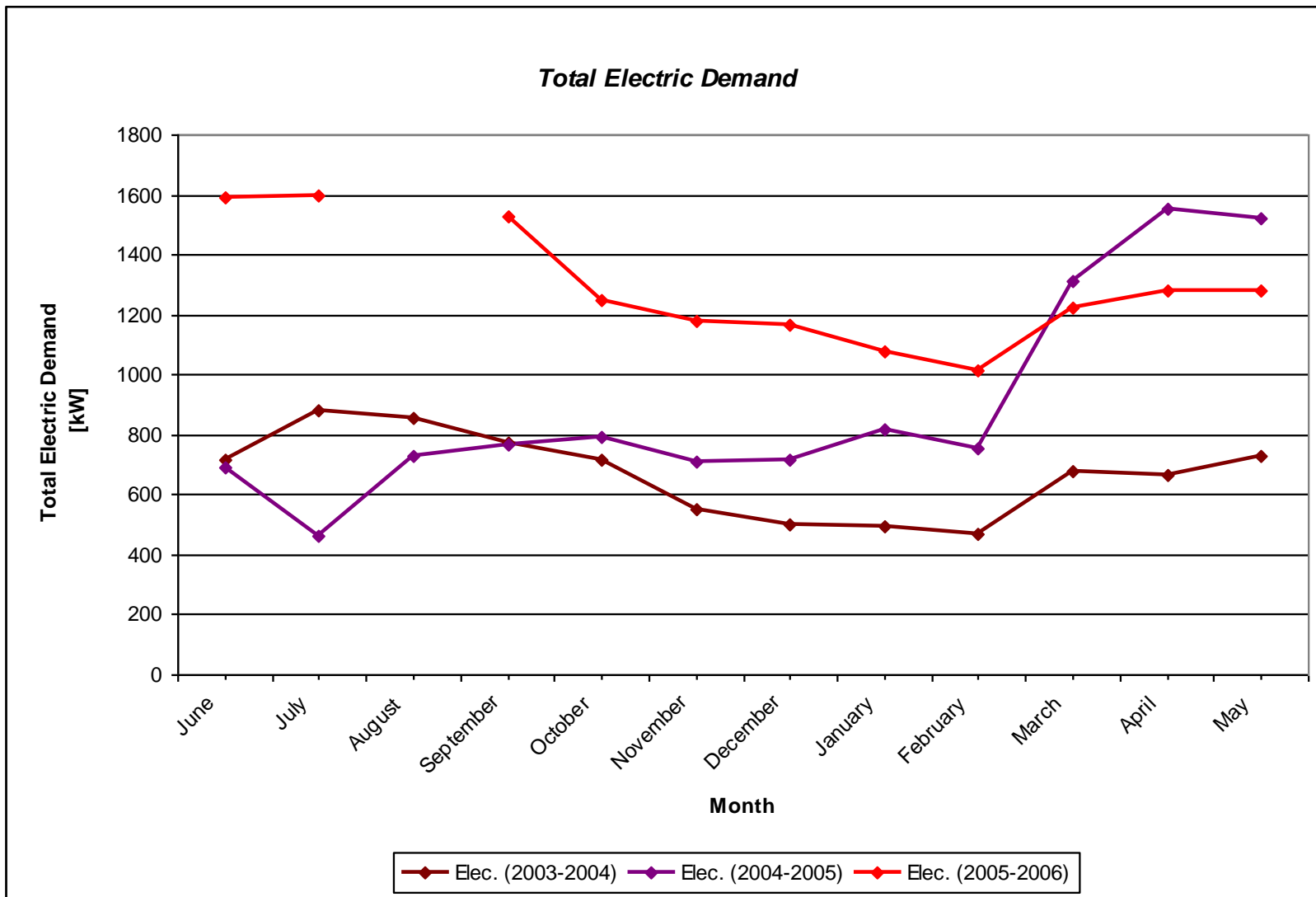


Energy Management

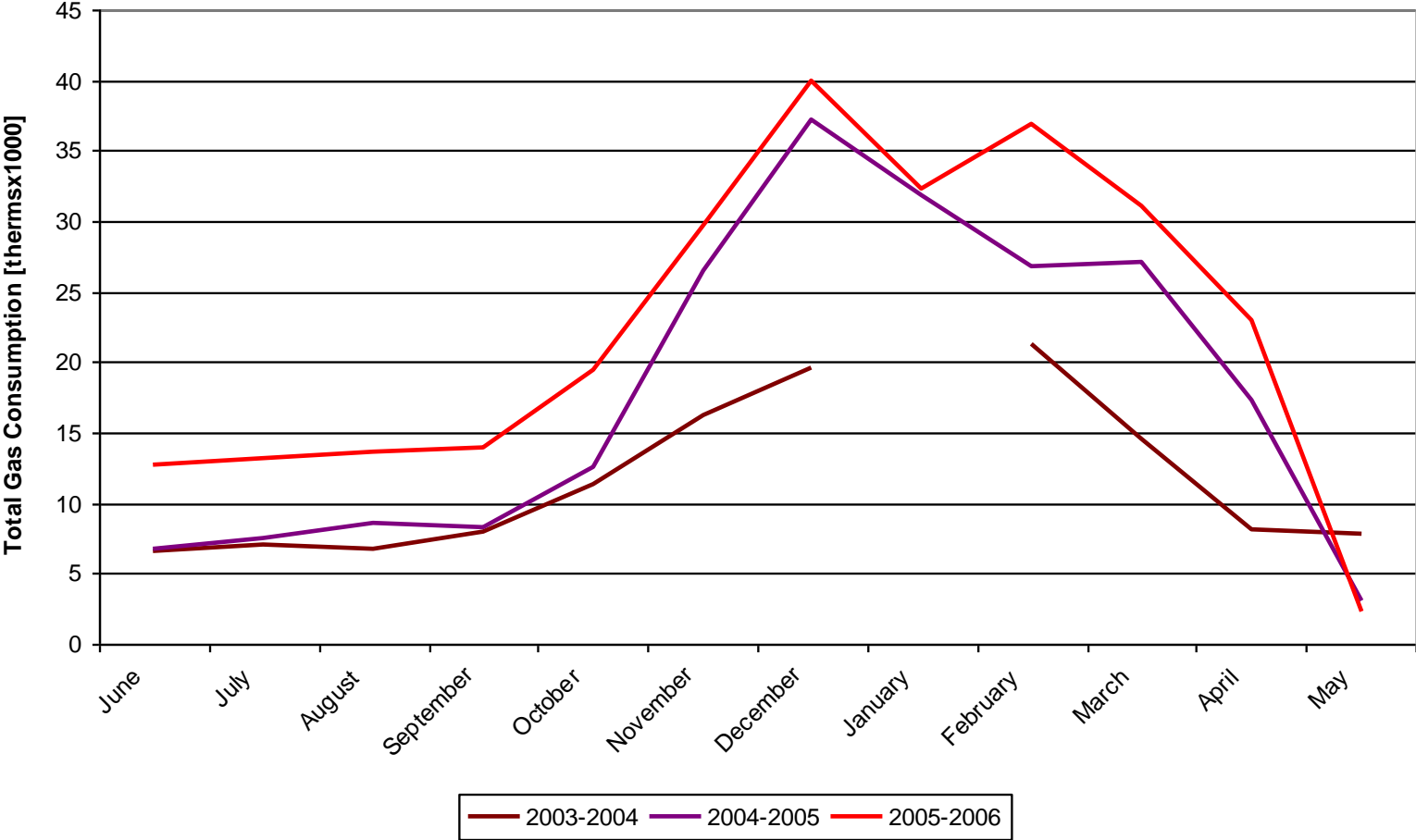
- “You can’t manage what you can’t measure.”
- What can you measure?
 - Utility bills
 - HVAC system controls



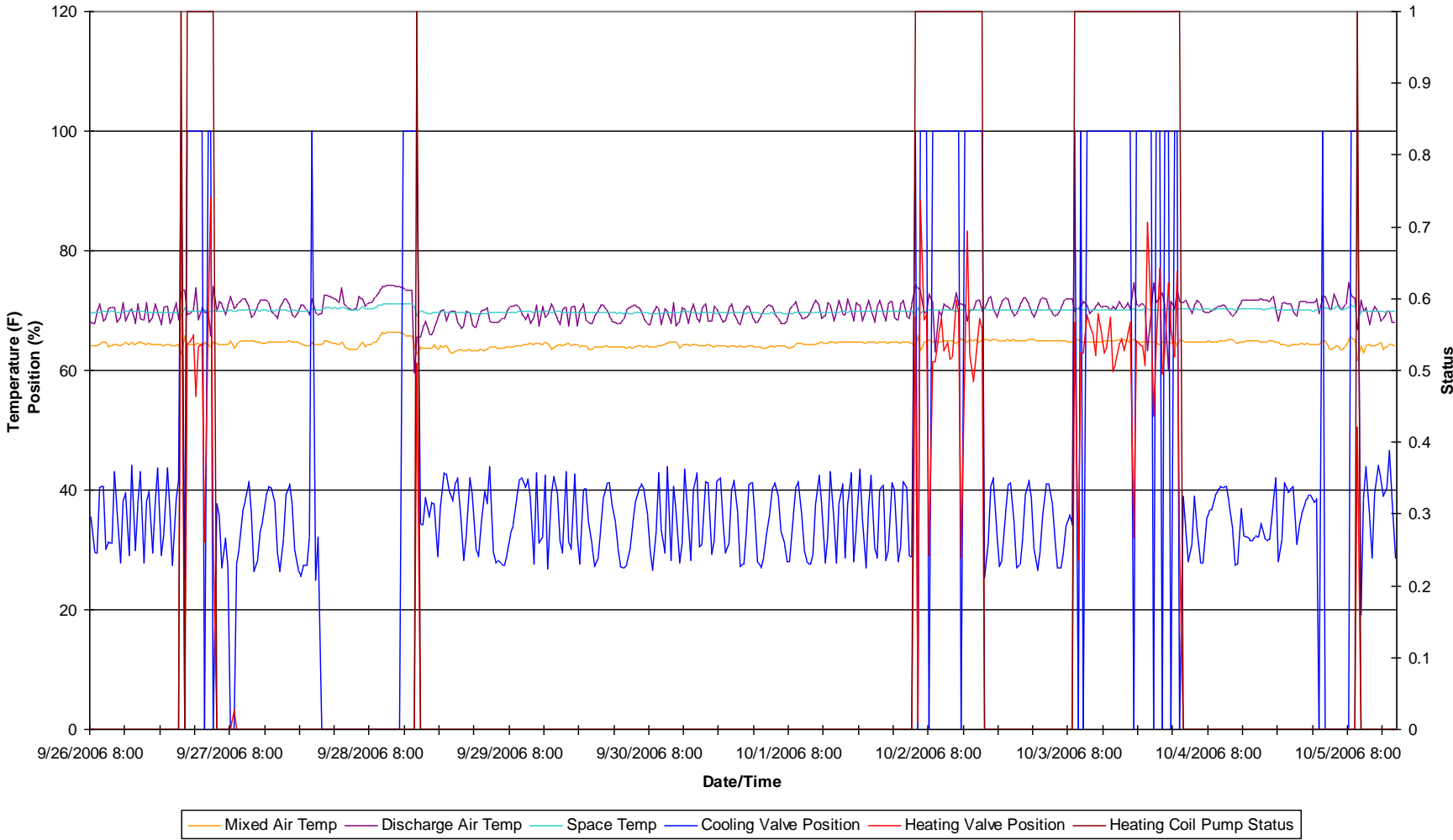




Total Gas Consumption



AH-1 Operation
(art storage)



Energy Management

- **Establish a baseline**
- **Compare actual performance against baseline on a regular basis**
- **Understand differences**
- **Act on identified problems**



Discussion