

Level 1 Step 4.1: Monitoring and Measurement of Key Characteristics Planning Worksheet

Date: _____

Prepared by: _____

A system is only effective if the information it contains is current and comprehensive. Many organizations perform weekly and monthly updates to collect data and incorporate into their systems at an interval of time effective to the program. A tracking system is a good way to determine whether a program is performing well. It will help identify when a specific activity is not meeting its expected performance and is in need of review.

Filling out this worksheet will help you determine what key characteristics need to be monitored and measured on a regular basis.

Key Characteristic: Energy sources, Current energy use and consumption (eGuide Step 2.4)

Energy Source/ Energy Use/ Energy Consumption	Department	How will it be monitored/ measured?	How often will it be monitored/ measured?	How will the data be analyzed?	What calibration is required?
Facility natural gas	Facility	Utility meter	Monthly	Month to month comparison for previous 3 years	Utility responsibility
Dryer natural gas	Production	Flow meter	Continuous	Continuous monitoring by operator for change in consumption	Annual calibration by equipment manufacturer
Electricity	Facility	Utility meter	Monthly	Month to month comparison for previous 3 years	Utility responsibility

Key Characteristic: Major equipment and systems (eGuide Step 2.5)

Significant Energy Use	Department	How will it be monitored/measured?	How often will it be monitored/measured?	How will the data be analyzed?	What calibration is required?
Compressed air system	Fabrication	Power usage	Weekly	Trends in amp draw and EnPI considering impact of temperature changes	Power meter - Semiannual calibration by equipment manufacturer
Boiler	Powerhouse	Fuel input	Continuous	Trends in fuel flow and EnPI	Gas flow meter - Semiannual calibration by equipment manufacturer
Roof-top HVAC	Administration	Power usage	Weekly	Trends in amp draw and EnPI considering impact of temperature change	Power meter - Semiannual calibration by equipment manufacturer

Key Characteristic: Prioritized energy performance improvement opportunities (eGuide Step 2.9)

Energy Improvement Opportunity	Department	How will it be monitored/measured?	How often will it be monitored/measured?	How will the data be analyzed?	What calibration is required?
Conduct regular air leak survey	Fabrication	Ultrasonic leak detection	Weekly	Air leaks recorded for repair by maintenance	Ultrasonic leak detector – Annual calibration by equipment manufacturer
Install controls for improved boiler air/fuel ratio	Powerhouse	Stack gas analysis	Weekly for first 6 months then monthly	Trend lines showing oxygen and stack temperature	Stack gas analyzer - Annual calibration by equipment manufacturer

Key Characteristic: Action plan completion and effectiveness in achieving objectives and targets (eGuide Step 2.11)

Action Plan/ Objectives and Targets	Department	How will it be monitored/ measured?	How often will it be monitored/ measured?	How will the data be analyzed?	What calibration is required?
Target: Reduce compressed air use by 3% by Dec. 2012	Fabrication	Power usage	Monthly	Comparison with 201X baseline	Power meter - Semiannual calibration by equipment manufacturer
Target: Reduce facility natural gas use by 5% by Dec. 2012	Facility	Facility natural gas meter	Continuous	Comparison with 201X baseline	Utility responsibility
Target: Reduce boiler natural gas use by 10% by Dec. 2012	Powerhouse	Fuel input	Continuous	Comparison with 201X baseline	Boiler gas flow meter - Semiannual calibration by equipment manufacturer