50001 Ready Navigator
U.S. DEPARTMENT OF ENERGY

THE PLAN-DO-CHECK-ACT COMPONENTS OF ISO 50001[i]

What is the underlying foundation for the PLAN-DO-CHECK-ACT (PDCA) continual improvement structure of an ISO 50001 energy management system (EnMS)?

Management responsibility— Demonstrate top management's commitment and support to the EnMS and to continual improvement of its effectiveness and the organization's energy performance.

Roles, responsibility and authority—Appoint an energy champion and an energy team, and define and communicate expectations for energy management and energy performance improvement behaviors and actions.

Energy policy—Develop and implement top management's statement of the organization's commitments related to energy to provide direction for energy performance improvement activities.

What's addressed in energy PLANning?

Legal and other requirements—Identify and keep up to date the legal and other requirements applicable to the organization's energy uses.

Energy review—Analyze energy data, identify the significant energy uses, and prioritize the organization's opportunities for energy performance improvement.

Energy baseline—Define a period of time to serve as a basis for comparison of energy performance.

Energy performance indicators (EnPIs)—Develop quantitative measures of energy performance.

Objectives and targets—Decide on the energy performance improvement goals to be achieved by the organization.

Energy management action plans—Plan the actions, responsibilities and methods needed to achieve and verify the improvements stated in the energy objectives and targets.

How DO the outputs from energy planning get implemented?

Competence, training and awareness—Ensure that employees and contractors are aware of and capable of carrying out their energy management responsibilities.

Communication—Implement processes for internal and external communication about the EnMS and the organization's energy performance.

Documentation—Maintain documented information on the EnMS.

Control of documents—Establish processes for managing documents to ensure that current and accurate information is available.

Operational control—Plan the operations associated with your significant energy uses, objectives and targets, and action plans to ensure that those operations are resourced and carried out consistently.

Design—Consider opportunities for improving energy performance in design activities for new, modified or renovated facilities, equipment, systems and processes.

Procurement—Make energy performance a factor in purchasing decisions when significant energy uses are involved.

What processes CHECK on how the EnMS is doing?

Monitoring, measurement and analysis—Monitor, measure and analyze the key characteristics of activities that determine energy performance.

Evaluation of compliance—Assess the status of compliance with applicable legal requirements and other energy requirements adopted by or committed to by the organization.

Internal audit—Verify that the EnMs is functioning properly and generating the planned results.

Nonconformities, correction, corrective and preventive action—Identify and correct actual and potential problems.

Control of records—Maintain information that indicates the results achieved or provides evidence of the activities performed.

How does management ACT for continual improvement?

Management review—Review the results and performance of the EnMS and take action to ensure its continuing suitability, adequacy, effectiveness and continual improvement in energy performance.

[i] Adapted from *Environmental Management Systems: An Implementation Guide for Small and Medium Organizations* (Ann Arbor, MI: NSF International, January 2001).