THE PLAN-DO-CHECK-ACT COMPONENTS OF ISO 50001[[1]](#endnote-1)



**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.

1. Adapted from *Environmental Management Systems: An Implementation Guide for Small and Medium Organizations* (Ann Arbor, MI: NSF International, January 2001). [↑](#endnote-ref-1)