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Energy management systems — Guidance for implementing a common energy management system in multiple organizations

Systèmes de management de l'énergie — Recommandations pour la mise en oeuvre d'un système commun de management de l'énergie dans les groupements d'organismes

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Foreword

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This document was prepared by Technical Committee ISO/TC 301, *Energy management and energy savings*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at ~~www.iso.org/members.html~~.

Introduction

~~ISO 50001~~ has been developed to enable a single organization to establish the systems and processes necessary to continually improve energy performance. In some situations, better energy management results are accomplished when several organizations work together to manage their energy collectively by forming an energy management group (EnMG). These situations can be driven by changes in technology and the spread of distributed energy resources.

EnMGs can include organizations which:

— operate in a geographical region, such as a city, district or a single industrial park;

— are in a single sector, such as food processing, rail transportation or universities;

— share a common customer (supply chain members), such as a supermarket chain or car manufacturer;

— are served by a common service supplier, such as a building landlord in a shopping mall;

— share one utility system (steam, electricity, etc.);

— form part of a franchise group, which can have (but does not need to have) a common supplier, such as a franchised fast food chain (with common supplier), or independent retail stores that operate under a cooperative banner;

— form part of a wider economic group, with financial links or common ownership;

— are different type of facilities owned by a municipal government (city office, library, hospital, etc.);

— share a common objective or energy target (either voluntarily set or mandated);

— have agreed to improve the same energy performance indicator (EnPI);

— are members of a trade association.

The approach within this document may also be used by a multi-site organization covered by a single or common management system.

Groups of organizations can derive energy management benefits beyond those realizable by a single organization through a joint or common approach to energy management by several organizations. In addition, opportunities can be found by focusing on the energy that flows across the boundaries of each constituent organization. This type of opportunity cannot be found in a single organization. Generally, the wider the boundary becomes, the more opportunities there are to improve energy performance and the amount of improvement.

The establishment of the EnMG can be driven by common energy needs, with the aim of facilitating synergies or sharing expertise to improve energy performance.

EXAMPLE 1 Large energy investments can be more efficient (one large boiler rather than several small).

EXAMPLE 2 Waste heat or local renewable energy supplies can be shared.

It can be helpful for the implementation of an energy management system (EnMS) for a group of organizations if at least one constituent organization has experience in energy management.

This document presents guidance on establishing a common EnMS modelled on ~~ISO 50001~~ but focusing on the issues that arise when multiple organizations coordinate energy management. The presence of multiple organizations requires guidance with respect to management aspects of a common EnMS, such as:

— leadership;

— planning;

— support for common or joint actions;

— operations or execution of common or joint actions;

— knowledge transfer;

— sharing of best practice;

— performance evaluation;

— ensuring continual improvement.

One additional benefit of a common EnMS is the ability to share expertise, equipment, etc. among constituent organizations to reduce costs and promote system improvements.

EXAMPLE 3 In an isolated mining or agricultural region it can be costly to bring in expertise (e.g. pumping experts to reduce energy consumption in irrigated agriculture) or to hire specialized machinery. An EnMG is often able to share experts' fees, travel and accommodation costs.