



50000&1
SEAPs

Policy paper and recommendations for EU policy makers

based on the 50000&1 SEAPs project's experiences and lessons learnt on opportunities to increase credibility of Local Authorities towards third parties

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Executive summary

ISO 50001 and other energy management standards can facilitate municipalities' efforts to use energy more efficiently in all sectors. These standards lay out how to establish, implement, maintain and improve an EnMS, allowing an organisation to achieve continual success in all areas of energy performance, including efficiency, security, and consumption.

50000&1 SEAPs project provided a coherent approach to integrating Energy Management Systems (EnMS) with SEAPs according to energy management standard such as ISO 50001 and European Energy Award, as quality management certification system for municipalities committed to sustainable energy planning. It aimed to help municipalities overcome the barriers blocking institutionalisation of their action plans and reinforce internal structures and procedures for high-quality, long-term, energy policy and planning.

Based on the results of the project, 50000&1SEAPs consortium has identified six main recommendations to ensure that sustainable approaches to local energy policy and planning are spread and strengthened further across Europe.

Recommendation 1: Encourage municipalities to hire an energy manager. Energy manager is a core element to ensure SEAP integration in the daily life and management in a municipality. Through initial understanding of the energy consumption and potential in facilities and infrastructure (like public buildings, public lighting and public fleet), energy manager will be able follow with SEAP actions.

Recommendation 2: Stimulate centralised energy data collection. The knowledge of energy consumption data represent the first fundamental step in order to develop, implement and monitor a successful SEAP.

Recommendation 3: Introduce requirement in the national legislation for energy management system in local authorities. Bottom up approach, i.e. strong involvement and encouragement of the local authorities play pivot role at the regional and national level to reach energy efficiency targets.

Recommendation 4: Learn from and apply best practices in energy management from around the world.

Recommendation 5: Promote the use of available tools for efficient and wider continuous improvement of the energy management in local authorities.

Recommendation 6: From energy management in local authorities towards benefits of standardisation increasing credibility and de-risking investments.

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Introduction

The 50000&1 SEAPs project provides a coherent approach to integrating Energy Management Systems (EnMS) with Sustainable Energy Action Plans (SEAPs) according to energy management standard such as ISO 50001 and European Energy Award, as quality management certification system for municipalities committed to sustainable energy planning.

These recommendations, aim to show how these standards integrated with the municipal Energy Management System provide support for municipalities committed to sustainable energy planning. Such a quality management certification system can help overcoming the barriers blocking institutionalisation of these action plans and reinforce internal structures and procedures for high-quality, long-term, energy policy and planning.

ISO 50001 and other energy management standards can facilitate municipalities' efforts to use energy more efficiently in all sectors. These standards lay out how to establish, implement, maintain and improve an EnMS, allowing an organisation to achieve continual success in all areas of energy performance, including efficiency, security, and consumption. Through applying these standards, organisations can reduce their energy use, energy costs and greenhouse gas emissions while improving environmental management.

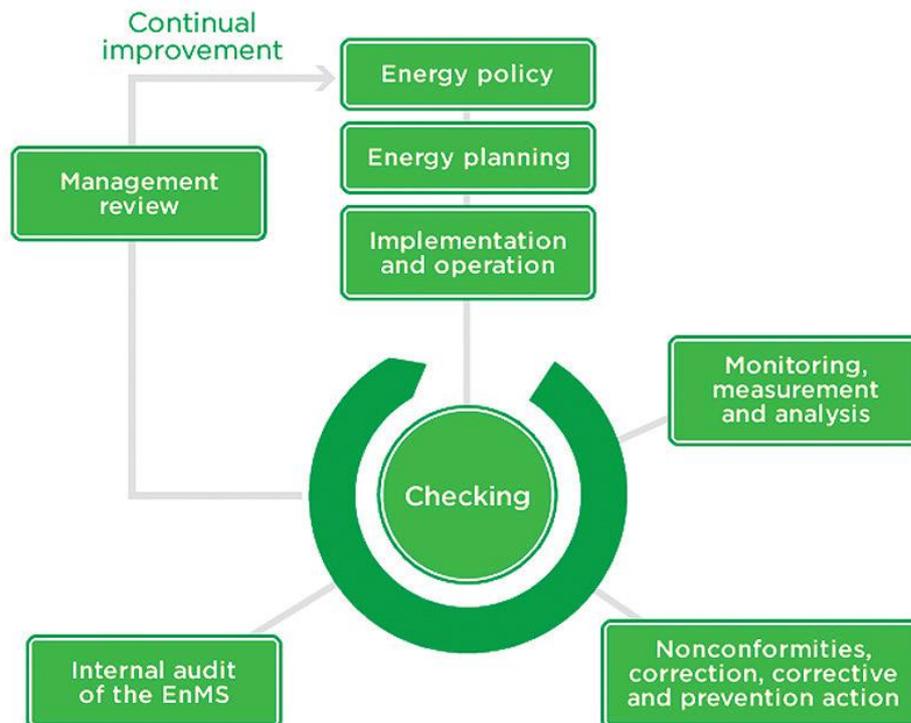
These recommendations discuss how the 50000&1 SEAPs approach helps to develop policies for more efficient use of energy, and support with fixing targets and objectives to meet these policies and to identify corrective measures and potential improvements for SEAP planning.

The starting Point: integration of EnMS and SEAP

ISO 50001 standard forces organizations to establish criteria to control and evaluate results of planned activities in advance, to define shared suitable indicators, and to take decisions on measured results and quantified expected results.

A similar approach – based on the PDCA cycle (Plan, Do, Check, Act) - may be useful for application inside the organization (in this case, the public authority) but also for managing a SEAP. The simultaneous implementation of EnMS and SEAP could be useful in achieving the goals of CO₂ reduction emissions for Local Administrations (LAs) wishing to implement a SEAP in the best way.

Figure 1: EnMS model according to ISO 50001



50000&1 Recommendations: the energy context

Clean Energy for All

The European Commission presented a proposal for a package of legislation entitled '[Clean Energy for All Europeans](#)'. The package aims to better align EU energy legislation with the 2030 energy and climate goals and contribute to delivering the Energy union strategy.

The package also wishes to respond to the needs for a new EU legislative framework geared towards 1) delivering on the ambition of commitments taken by the EU under the Paris Agreement, 2) delivering on the goal of 50% RE production by 2030, 3) delivering on the objective of electricity completely carbon free by 2050.

The three main goals of the package are:

- Putting energy efficiency first
- Demonstrating global leadership in RE
- Delivering a fair deal for energy consumers

In addition, the package aims to boost growth and employment, considering that the energy sector alone employs close to 2.2 million people, spread over 90 thousand enterprises across Europe. The package has the potential to deliver up to 900,000 additional jobs and €190 billion in GDP gains by 2030.

The package and the revision of the Directives will also contribute to energy security, aiming to save up to €290 billion for the 2021-2030 period compared to business as usual conditions.

The 50000&1 SEAPs approach can effectively support the targets addressed by the “Clean Energy for all Package” through working with Local Authorities and local energy stakeholders:

- Through promoting and implementing energy efficiency measures within the public sector, LAs can also act as a “role model” for the community and encourage energy efficiency measures in the residential sector.
- Through supporting energy efficiency measures in low-income households, specifically in social housing
- Through establishing a virtuous circle of trust and cooperation between the LAs and the community, the LAs can support energy consumers to become prosumers (e.g. through providing a sound assessment of the impacts of measures implemented),

and to directly invest in energy efficiency retrofits, as well as in RES generation. The measures implemented as a result of this cooperation, will help to successfully implement the objectives of the LAs' SEAP.

- Through providing necessary tools and data access to consumers, who can therefore actively engage in the energy transition.

The package includes the revision of several Directives including the Energy Efficiency Directive and the Energy Performance in Building Directive.

In the revised EE Directive, the Commission proposes a 30 % binding energy efficiency target at the EU level for 2030, to be achieved through indicative national targets. This is more ambitious than the 27 % efficiency target approved by the European Council in 2014, but less ambitious than the 40 % target repeatedly called for by the European Parliament. The revised directive also proposes to extend beyond 2020 the application of the energy savings obligation schemes, which require utility companies to help their consumers use 1.5% less energy each year.

The 50000&1 SEAPs approach can support the objectives and provisions of the EE Directive through:

- Providing a sound management and assessment process for energy consumption, in support of the Directive's goal to attract private investment for energy efficiency measures
- Creating a clear link between energy efficiency measures and policies at the local level, and therefore institutionalizing these processes, and promoting coherence with the provisions of the EPBD
- Simplifying and streamlining data management and monitoring of local energy performance in order to identify the most cost effective solutions. Through addressing with LAs, the 50000&1 SEAPs approach allows to consider not only energetic performance, but also social and economic factors.

The clean energy package includes a targeted revision of the 2010 Directive on the energy performance of buildings (EPBD). The Commission proposal would leave intact the key objectives and main features of the EPBD, which include the obligation that all new buildings are nearly zero-energy buildings by 2021, but modernise and streamline some existing requirements, and remove redundant provisions. The Commission also proposes binding obligations on electromobility requirements in residential and non-residential buildings; a 'smartness indicator' that assesses the technological capability of the building; and clearer requirements for how to develop and update national databases on Energy performance certificates.

The 50000&1 SEAPs approach can support the objectives and provisions of the EE Directive through:

- Developing business models for local energy actions able to Building on EFSI II blending with ESIF funds
- Promoting transparency, and better highlighting risks and benefits for investors through a sound process of assessment of the local energy management
- De-risking local energy measures implementation through providing a standard for performance.

5000&1 contributions to the Energy Union

The EU's energy union strategy is made up of five closely related and mutually reinforcing dimensions:

Security, solidarity and trust - Diversifying Europe's sources of energy and ensuring energy security through solidarity and cooperation between Member States.

A fully-integrated internal energy market - Enabling a free flow of energy throughout the EU through adequate infrastructure and without any technical or regulatory barriers – an efficient way to secure supply and give consumers the best energy deal.

Energy efficiency - Energy efficiency first - improved energy efficiency will reduce our dependence on energy imports, reduce emissions and drive jobs and growth.

Climate action - decarbonising the economy - An ambitious climate policy is integral to creating the Energy Union. Actions include the EU Emissions Trading System (EU ETS), strong but fair national targets for sectors outside the ETS to cut greenhouse gas emissions, a roadmap towards low-emission mobility and an energy policy which makes the EU world leader in renewables.

Research, innovation and competitiveness - Supporting breakthroughs in low-carbon and clean energy technologies by prioritising research and innovation to drive the transition of the energy system and improve competitiveness.

Specifically, 50000&1 SEAPs contribute to **increasing energy efficiency**, through providing LAs and relevant energy stakeholders with transparent methodology for the assessment of energy performance, and for a the development and implementation of sound local policies and measures in the public sector.

The project's methodology also contributes to increase the trust of investors, through giving access to data and projections on local energy performance, which supports the development of tailor-made business models for the roll-out of energy actions and policies.

Local Action on Climate and Energy

50000&1 SEAPs starts from the idea of supporting Local Authorities in monitoring, implementing and financing their local Sustainable Action Plan, developed in the framework of the Covenant of Mayors initiative.

Local energy initiatives can ensure the local energy transition that both the Energy Union and the clean Energy for All package want to implement and enable is speeded up. These actions which are often more ambitious than the actions taken at the national level, can complement the national and regional level efforts for more sustainable and more energy efficient policies, and measures across Europe.

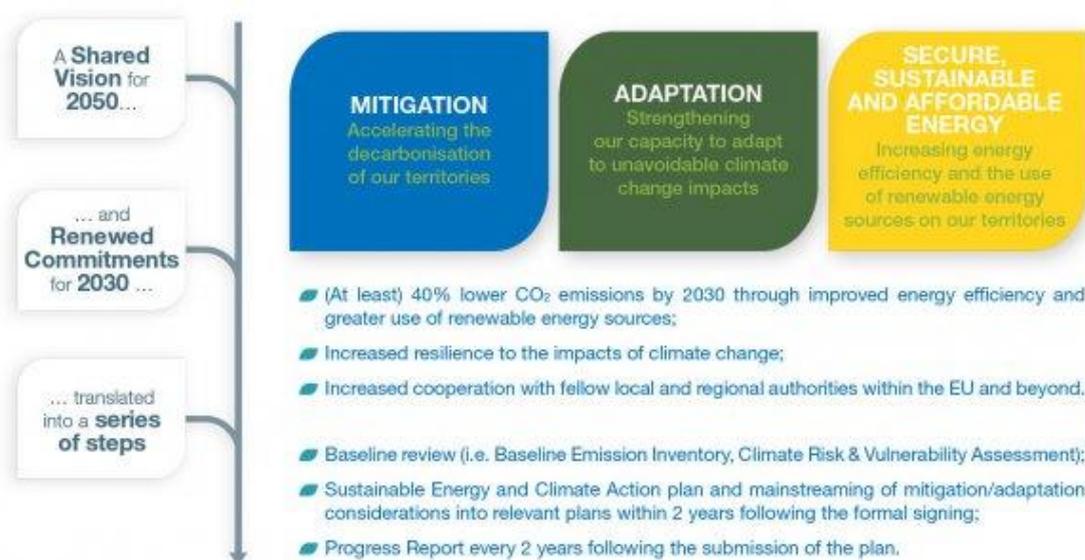
Covenants, Compacts and Global Covenants: how are mayors taking the initiative?

What the CoM accomplishes is to bring together over seven thousand municipalities to make voluntary commitments to reduce greenhouse gas (GHG) emissions and implement related energy and climate objectives within their jurisdiction. It finds its beginnings in the EU's 2020 Climate and Energy Package, when the European Commission (EC) established the Covenant of Mayors (CoM) in 2008 as an initiative to empower local authorities across Europe to take charge of many of their own climate change issues, particularly the so called "20-20-20 by 2020" goals, which called for 20% more renewable energy (RE), 20% less energy consumption and 20% GHG emission reductions). The CoM has especially stressed mitigation and sustainable energy initiatives from the start, embodied in the development of SEAPs – only in 2015 did an updated unitary framework integrate climate adaptation issues as well into the CoM umbrella.



According to this more holistic approach, CoM Signatory cities now vow that by 2030 they will decrease their own GHG emissions by at least 40%, as well as institutionalising not only climate change mitigation and sustainable energy, but also adaptation measures, within governance, planning and investments. Additionally this integrated structure promotes an inspirational vision for 2050 which further emphasises the importance of decarbonisation initiatives, whether through mitigation efforts or increased access to sustainable energy systems, and improved capacities to adapt to the consequences of climate change.





Towards more sustainable, attractive, liveable, resilient and energy efficient local authorities

Figure 1. Updated CoM framework [Covenant of Mayors [website](#), 2015]

At a more concrete level, Signatory cities commit to converting their political promises into practical projects according to a carefully-developed strategic action plan, which must be submitted within two years, at the latest, after local policy-makers have officially signed the CoM. Either a SEAP or a similar document (since 2015), Sustainable Energy and Climate Action Plan (SECAP), spell out specific activities which should be implemented to contribute to achieving objectives and larger outcomes – very importantly, these action plans also carefully define key indicators, concrete funding levels and sources, timelines and responsibilities among stakeholders.

One of the most important activities which these action plans include is the establishment of a Baseline Emission Inventory (BEI). The BEI provides an important first step in assessing initial conditions which can be referred to for benchmarking and follow-up Monitoring Emission Inventories (MEI). Together, these two types of inventories allow results from other mitigation and sustainable energy activities within the action plan to be tracked quantitatively. Furthermore, a related Climate Risks and Vulnerability Assessment (CRVA) forms a major step in outlining adaptation efforts outlined in a SECAP. Such key actions not only provide useful outputs feeding into the bi-annual progress reporting required of all CoM Signatories, but are also quite vital for facilitating any needed re-tooling of planned measures. Such assessments therefore are crucial for ensuring that the action plans function as “living” documents with implementation goals remaining feasible even in the long-term.

Meanwhile, a separate initiative was launched in 2014 by the UN Secretary-General and his Special Envoy for Cities and Climate Change: the Compact of Mayors¹. The cooperation of the top global city networks – C40 Cities Climate Leadership Group, ICLEI – Local Governments for Sustainability and the United Cities and Local Governments (UCLG) – with the UN-Habitat agency allowed the creation of a worldwide platform to magnify the collective actions of local communities across the globe. The Compact articulates a unified vision and provides a forum for city and LG representatives to collaborate with and learn from one another for addressing climate change holistically. It was the first such initiative to strongly stress the importance of adaptation, and not only mitigation, as a global reality, something particularly important to many of the regions covered by the Compact. Another key point distinguishing it from the CoM is its emphasis on more standardised data which remains consistent among cities, and therefore theoretically allows them to develop complementary solutions.



In any case, while engaging with cities to further expand their commitments in 2016, the issue arose that a streamlining of these two parallel endeavours, the CoM and the Compact, might be in order. Following extensive international discussions, both have formally been merged into a combined initiative, the Global Covenant of Mayors for Climate & Energy², which officially kicked-off in 2017. It represents in total nearly 700 million people (over 9% of population worldwide) from 7, 400+ cities in over 119 countries. The Global Covenant will enable cities worldwide to collect and report climate/energy data in a uniform, comparable and transparent way, allowing them to produce action plans and/or other types of complementary solutions which help to track their progress. Furthermore, it can facilitate cities' engagement with the national level, as well as help the UN and the global community identify those valuable contributions which cities and LGs are making toward the goals set in the Paris Agreement. All of this serves to underscore how important cities are to meeting climate objectives and will eventually provide a stable path for mayors worldwide to reduce carbon emissions, strengthen resilience and still achieve other, more localised benefits, such as increased access to clean and affordable energy, improved public health and stronger local economies.



¹ Compact of Mayors: www.compactofmayors.org

² Global Covenant of Mayors for Climate & Energy: www.globalcovenantofmayors.org

The Paris Agreement

The unanimously approved Paris Agreement achieved at 2015's Conference of the Parties4 (COP) 21 strives to limit global warming, with a target maximum increase in global temperature of 1.5°C above pre-industrial levels. The Agreement also states that nations will review their commitments every five years in order to keep GHG emissions' trajectories well below levels which would otherwise trigger a global temperature increase of 2°C. Irrespective of how well it will actually be implemented over the coming years, it can at least be considered to have been an important first step, since it finally managed, among its 192 signing and 134 ratifying countries (as of February 2017), to bring all of the largest emitters to the table, a feat not quite achieved by the previous Kyoto Protocol. Such a constellation of committed nations helps to bring a sense of accountability to the process and to hopefully safeguard those most vulnerable populations and small island nations in particular, which tend to suffer most from the impacts of climate change they have not even caused.



Figure 3. Participants Countries at the Paris Agreement

Recommendation 1: Encourage municipalities to hire an energy manager

According to the guidelines of the Covenant of Mayors, one of the key elements of a successful SEAP is to “Integrate the SEAP into day-to-day life and management of the municipality: it should not be just another nice document, but part of the corporate culture!³”

Therefore a question arises: what are our options? Do we have any solutions how to encourage municipalities to put effort towards systematic implementation of energy and climate measures? One can argue if that is really needed; how much it will cost and who will pay for it.

Experience of 50000&1SEAPs shows:

- Rarely top management in the municipalities really know how much they pay for energy in public infrastructure. When they learn it, it is easier to approach and convince them to act.
- Energy management system according ISO50001 standard ensures systematic approach towards reduction of energy and costs in the municipality. It provides clear procedures, defines responsibilities, sets annual targets and actions to reach them.
- Municipality can achieve at least 5-10% energy savings through implementation and improvement of an energy management system (EnMS). The main principle of the EnMS is direct involvement of energy users who can influence energy consumption.
- Clear responsibilities have to be assigned and an energy manager appointed. Another option is to delegate duties of an energy management to a third party. It also means that municipalities have to foresee initial budget.

Energy manager is a core element to ensure SEAP integration in the daily life and management in a municipality. Through initial understanding of the energy consumption and potential in facilities and infrastructure (like public buildings, public lighting and public fleet), energy manager will be able follow with SEAP actions. Municipalities with energy managers tend further set ambitious targets and ensure efficient management not only in the field energy but also in other sectors, e.g. security, civil protection etc.

Examples of specific task for an energy manager are:

- Ensure monthly energy data gathering from public facilities and infrastructure;
- Analyse energy data and report to the management;
- Follow deviations from the reference consumption and understand the changes;

³ Source: http://www.pilsetumerupakts.eu/IMG/pdf/SEAP_guidebook_Part_I.pdf (page 12)

- Create, implement and improvement energy management system in the municipality;
- Prepare different alternative projects to reach energy consumption reduction targets;
- Communicate with involved parties, i.e. technical staff in the schools, top management etc.

Examples of hiring/appointing energy managers in the municipalities:

Montecchio Maggiore (Italy)

At the moment in Italy a position of an energy manager is mandatory only for municipalities with annual energy consumption over 1000 tep (i.e. 11,630 MWh). However there are some cases where energy manager has been appointed voluntarily by the LG. One of municipalities is Montecchio Maggiore.

Daugavpils (Latvia)

Four of the five municipalities in Latvia have appointed energy managers in their municipalities. The fifth municipality has procured services of energy management. In the city of Daugavpils (with population of 100,000) an energy manager is a territory planner. The responsibilities of the energy manager are to assist and ensure EnMS development process, as well as further implementation of the EnMS and SEAP. Currently the energy manager is the core of the EnMS team and the key player of a successful ongoing EnMS in Daugavpils.

France

In France, territorial energy and climate policy is often supported by the sustainable development / Climate plan manager and local authorities' assets are under the responsibility of the asset management department. Close internal collaboration is necessary to make SEAPs work. In the case of Tours, Tours Plus and Muretain Agglo, different persons and divisions deal with assets and the territory, in Lorient the energy manager deals with them both.

There is no mandatory position for energy managers but the obligation of putting together and submitting energy, air and climate plans for LAs exceeding 20000 inhabitants will eventually lead to the creation of energy manager jobs. An energy consumption threshold for appointing and energy manager, such as in Italy, would have positive effects on smaller LAs where energy management is regarded as too complicated and could be financed by the savings achieved by the managers' actions. EnMS is then a meaningful and useful approach.

Recommendation 2: Stimulate centralised energy data collection

With smart meters being deployed across Europe, the amount of data that will be available about energy consumption will raise tremendously⁴.

The knowledge of the energy consumption represents the first fundamental step in order to develop, implement and monitor a successful SEAP. The quantification of energy use and consumption is necessary to structure the energy balance of the territories identifying significant energy uses and the related greenhouse gas emissions. The identification of the areas are causing environmental impacts in terms of greenhouse gases released still represent one of the most important problem for the local authorities involved in the energy transition. Having access to reliable energy data also allows the municipalities involved to monitor the effectiveness of the strategies in the SEAPs that are being developed and implemented. The collection of energy consumption data in sufficient detail by energy uses, end use customer segmentation and location is not mandated by any EU directive, however the Energy Services Directive (ESD) 2006/32/EC and subsequently the Energy Efficiency Directive (EED) 2012/27/EU both ask for the Member States to introduce legislation in order to be able to ask for more detailed data “on request”.

Moreover the fragmentation of distribution networks within many national territories means that for each local area (territorial boundaries of the LAs) should be involved different distribution system operators (DSO) for obtaining information relating to energy consumption.

Lately several EU projects co-financed by the Intelligent Europe Program such as [MESHARTILITY](#), [DATA4ACTION](#) and [SEAP PLUS](#) have focused the attention on data sharing mechanisms between DSOs and LAs concerning electricity distributed, natural gas and district heating and cooling, RES production. The common target of these projects was to overcome the legal barriers promoting tools and platforms to share energy data in accordance with the requirements of the Covenant of Mayors.

The main benefits of centralised energy data collection at national and local level:

- Clear identification of the national relevant actors and related roles in data sharing: national and local authorities, DSOs, agencies, energy providers, etc.
- Use common methodology among the Member States to identify: data ownership; data access methodology and tools; data quality; regular updating of data; define a bottom-up in data collection (developed in the framework of MESHARTILITY).

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https://ec.europa.eu/energy/sites/ener/files/documents/report_final_eg1_my_energy_data_15_november_2016.pdf

- Common tools for the identification of energy performances in specific sector as required by the CoM initiative.
- Enhancement of the municipalities capacity building in structuring common pathway in the energy transition.
- Definition of coherent and reliable Sustainable Energy Action Plans along with the creation of an effective data base to be used in the definition of policies and measures.
- Direct engagement and commitment to achieve common goals in the field of energy efficiency and sustainability at urban level.
- Launch the EnMS methodology applied in LAs as benchmark of excellence in terms of achievements, energy saving and money saving.
- Transfer EnMS approach and methodologies in the Energy Policy applied in private sectors.

How to overcome the existing barriers

- Establish a common template to gather set of the annual energy data at local level in accordance with the CoM requirements;
- Increase the role of the National Authorities in the publication of data consumption by macro-area sectors at local level;
- Where statutory data collection by one central state department is not desired or possible, that central data collection by non-state (regional) agencies such as energy agencies should be established and properly funded;
- A national or regional central database of energy use of public buildings should be established in each Member State, ideally integrated with the property cadastre in each country;
- Promote a national database including Municipalities certified according with the ISO 50001 requirements;
- Benchmarks among sectors/EnMS by countries;
- EnMS data should be reported among SEAP data.

Recommendation 3: Introduce stronger national legislation

National legislation is a strong driver for local authorities to follow, introduce and implement different initiatives at the local level.

Energy Efficiency Directive (EED) states “Member States should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving objectives. Such plans can yield considerable energy savings, especially if they are implemented by energy management systems that allow the public bodies concerned to better manage their energy consumption.”

There are countries like Latvia and Italy that have followed identified pathway of the EED. Latvia has introduced a mandatory certification of an energy management system in the largest cities (see for more info box below). In the meantime Italian local authorities with energy consumption above 1000 tep are obliged to hire an energy manager (see for more info in the box under Recommendation 1).

Bottom up approach, i.e. strong involvement and encouragement of the local authorities play pivot role at the regional and national level to reach energy efficiency targets.

Example of Latvia: defining need for EnMS in the national legislation

Latvian energy efficiency regulations require the certification of energy management systems in the nine largest cities in the country. This means that municipalities have to ensure efficient energy data collection and analysis, as well as the efficient use of energy. Experience shows that with a targeted energy management system, municipalities can achieve energy savings of 5-10% during the first years and later around 3% annually.

The process of the transposition of the Energy Efficiency Directive 2012/27/EU into national legislation was very intense in Latvia. Profound discussions were raised on some of the aspects like the selection and application of energy efficiency obligation scheme. In the meantime, Ministry of Economics (MoE) was searching also for other possibilities to reach energy reduction target. One might be implementation of energy management systems in industries and municipalities. Finally MoE prepared an Energy Efficiency Law where one of the provisions is the requirement for mandatory implementation of energy management systems in the nine largest cities in Latvia. Ministry hopes that this might serve as inspiration for smaller municipalities to reduce also their energy consumption with small investments.

It is recommended to introduce requirement in the national legislation for energy management system in local authorities. It can be included directly in the normative acts or also motivated through different financial instruments with allocated adequate budget for the development of the EnMS.

EU Member States can be encouraged to introduce mandatory energy management system with certification for municipalities over 1000 tep of energy consumption. Another option might be that LAs (population above 50 000) applying for EU funds should have implemented ISO 50001.

Recommendation 4: Learn from and apply best practices in energy management

More and more countries around the world are promoting continuous improvement of the energy performance through energy management system⁵. There are different National Programs created in North America, as well as in Europe different countries have introduced EnMS on voluntary as well as mandatory basis.

However, introduction of the EnMS is only the first step. It requires considerable capacity building among implementing organisations (LAs), energy efficiency service providers as well policy makers, certifying organisations and other stakeholders.

Substantial effort through capacity building events, trainings and informative materials has been already put. During 50000&1SEAPs comprehensive trainings at EU, national and local levels were organised to bring the main stakeholders through the EnMS process. All the presentations as well as records from webinars in English are available on the project [website](#).

There is growing number of best practices in EU and around worldwide that use different channels for promotion. Here are two examples at internal and national scale:

1. The Energy Management Working Group (EMWG) of the Clean Energy Ministerial (CEM) seeks to accelerate broad use of energy management systems in industry and commercial buildings worldwide. CEM annually organises the *Energy Management Leadership Awards*. Award recognizes organizations using an ISO 50001-certified energy management system to save energy and reduce costs. This award helps

⁵ Source: Sheaffer P. et al, National programs to build capacity for effective ISO 50001 implementation in North America, eceee Industrial Summer Study proceedings, Industrial Efficiency 2016.

accelerate broad implementation of these proven systems to help meet organizational, national, and global energy and climate goals.

In 2017 Insight Award received also two LAs from Europe: City of Montecchio Maggiore (Italy) and city of Daugavpils (Latvia)⁶. Both LAs took part in 50000&1SEAPs and provided their achievements towards implementation of EnMS:

- [City of Daugavpils: First ISO 50001 certified city with broad energy management system boundaries](#)
 - [City of Montecchio Maggiore: Montecchio Maggiore Municipality improves Energy Performance by 1.11% due to the implementation of EnMS in the first six months!](#)
2. On 31 May 2017 municipality of Metamorfoosi (Greece) received a bronze award for the “Development and application of the ISO50001 standard for all buildings and services of the Municipality of Metamorfoosi” at the national competition “Energy Mastering Awards” (<http://www.energyawards.gr/>) in the category of Energy Management Systems. National competition promotes innovative energy management practices of the private and public sector. The gold and silver were awarded to two major telecommunications corporate firms for implementing ISO50001 in their organisations.

EnMS should be further promoted at EU level. It is recommended to use different channels through Covenant of Mayors, Joint Research Center, Covenant coordinators and supporters and other stakeholders. It is also advised to assess if additional category for energy management might be created within EU Sustainable Energy Awards.

⁶ <http://www.cleanenergyministerial.org/2017-Energy-Management-Leadership-Awards>

Recommendation 5: Ensure available tools for wider use of energy management

The use of ISO 50001 represents a fundamental step for proper application of the legal requirements improving the operational control and contributing to reduce energy costs related to energy consumption. The growth of awareness on energy issues in all the sectors involved by the EnMS is the most important achieved result. The direct relationship between operational control and monitoring phase gives to the Top Management the opportunity to take informed decisions based on specific performance indicators. Defining specific roles and responsibilities related to energy issues represent the correct methodology to support the work coordinated by the energy manager. The continuous monitoring of the energy performance of the LA and territory helps the municipality to establish and share policies for a local sustainable development in partnership with local actors (citizens and stakeholders).

Continual improvement is the most important requirement of the ISO 50001. In order to identify and prioritize the improvement opportunities, organizations (LAs in this case) shall establish its energy uses through specific energy performance indicators (EnPI). Energy performance indicators selected must be appropriate for monitoring and measuring the energy performance, EnPIs shall be reviewed and compared to the energy baseline as appropriate.

Direct Energy uses	EnPI
Electricity in buildings, facilities and infrastructures	kWh/m ² monthly
Electricity in Public Lighting Systems	kWh/light lamp monthly
Natural Gas in buildings, facilities and infrastructures	kWh _t *degree days/m ² monthly
Fuel in vehicle fleet	l/km monthly

EnPI for direct energy use

The identification of the energy use is aimed to establish an energy baseline, implement and document energy objectives and targets at the relevant functions, levels, processes or facilities within the organization. The prioritization of objectives and targets depends by the following aspects: analysis of the energy uses, potential reduction of the energy consumption based on the improvement opportunities, investment payback period based on the improvement opportunities. According with the ISO 50001 requirements, all these aspects shall be reviewed periodically by the organization in order to guarantee a correct and successful implementation of the EnMS. Outcomes and results of the implemented measures shall be periodically analysed by the Top Management together with the Energy Team members (including the Coordinator/Energy Manager) in order to verify the results and establish new energy performance objectives and targets. Operational control represents a significant step to establish and setting criteria for the effective implementation and control of

the measures ensuring an appropriate a continual monitoring methodology. Just for example this is a table of the indicators in private sectors:

EnPI in the territory monitored by the SEAP activities (Energy Balance and measures)	
Total consumption of electricity	kWh/capita per year
Electricity consumption by sector (residential, industrial, agriculture, tertiary)	kWh per year
Total consumption of natural gas	thous.m ³ /year
Natural gas consumption by sector (residential, industrial, agriculture, tertiary)	thous.m ³ / year
Fuel sales in private transport	Tons per year
Electricity RES production by sector (residential, industrial, agriculture, tertiary)	kWh per year; kWh/kWp
Thermal energy production by sector (residential, industrial, agriculture, tertiary)	kWh per year; kWh/m ²
Total energy consumption per capita	MWh/ capita
Total energy consumption in residential sector	MWh/ capita
Total energy consumption in industrial sector	MWh/company
Relationship between energy production from renewable sources (electricity and heat) and territorial gross final consumption	%
Relationship between buildings in class A in the municipal area and the total number of buildings	%
Energy efficiency measures on private buildings in residential sector	Number of energy efficiency measures; MWh saved/year

EnPI defined in the territory by SEAPs activities (Energy Balance, measures monitoring)

Recommendation 6: Benefit from standardization increasing credibility and de-risking investments

General recommendation focused on how implementation of EE and RES measures, either from Municipal Budget or through PPPs, can be clearly defined according with the EnMS scheme and implemented by defining specific investments financed by the municipal budget with a payback-time calculation

Potential competitive advantage through Standards

The integration of the technical and accountability elements of ISO 50001 Standard with the political drive of SEAPs and SECAPs represents an unique opportunity to translate energy local goals into bankable projects.

The range of financing mechanisms available to a municipality depends on many factors: financial strength and creditworthiness, predictability of budget transfers and revenues, local

legal and regulatory framework, the local business environment and the nature of the Energy Efficiency projects are some of the most important factors that have to be taken. Specifically, the implementation capacity, and the available delivery mechanisms are influenced by the size of a municipality, with large municipalities facing different issues than small ones.

Municipal Energy Efficiency and Renewable Energy Sources investments require mechanisms that ensure investors a good return on investment. Many investors still consider energy efficiency measures as a risky investment, and require well defined and agreed upon procedures for determining the project's baselines, procedure of assessment and verification of both energy cost and savings, and budgetary savings. These indicators of performance can be obtained through embedding the ISO 50001 standard in the energy related projects of the city. Auditors form banks and credit rating institutions. Therefore ISO 50001 become a cornerstone for a new generation of bankable projects, and drive energy transition of cities while improving their corporate image for future investments on green solutions (green mobility, smart city...)

A Step-by-Step Process to support investments, competitiveness and attractiveness

A simple step by step process is recommended to best benefit from introducing the EnMS of ISO 50001 in the Energy Planning models of your city.

Step 1: Propose an Energy Management Strategy to Municipal Council

Step 2: Develop an understanding of the current energy efficiency opportunities

Step 3: Organize and analyze energy efficiency opportunities

Step 4: Create a short-term time line with long-term goals and in coherence to the other Planning tools of the City

Step 5: Create energy efficiency targets

Step 6: Engage with colleagues and Stakeholders during SEAPs/SECAPs participatory meetings

Step 7: implement actions through the promotion of Public Private Partnerships, preferably at local scale

Step 8: Consider different financial mechanisms, including the creation of local Revolving funds, through savings generated, and engaging community-led initiatives – leveraging local private investments, while creating local added value Step 9: Make a plan for accountability to improve your Credit Rating

Step 10: Include the EnMS inside your Participatory Budget or Create a Participatory Budget

Here under two cases of cities benefiting from Standardisation

Benefits of the standardisation in the city of Daugavpils (Latvia)

City administration made a big step towards sustainable and climate friendly governance by implementing the EnMS and setting ambitious targets. As the EnMS was implemented in 2016, the quantitative results will be available only at the end of 2017. However, already during the establishment and development of the EnMS, major improvements were achieved. Firstly, responsibilities and communication was established among different key players, especially regarding collection, storage and analysis of the monthly energy data. It was crucial as historically nobody was responsible for centralized energy consumption data collection and analysis. Therefore also energy efficiency measures were not implemented on regular basis.

Forecasted energy savings due to implementation and operation of the EnMS in 2017 are 4.3 TJ. This leads to the energy cost savings of 77,580 EUR, and a simple payback time of 11 month. The total CO₂ emission savings are expected to reach 311 metric tons. Learn more about Daugavpils [here](#).

Benefits of the standardisation in the city of Montecchio Maggiore (Italy)

The City administration has defined internal rules and responsibilities in order to develop and implement ISO 50001 integrating its energy policy in the activities of the Public Administration. Continual energy improvement and CO_{2e} reduction has become a fundamental criterion reflecting the energy policy of the Municipality. Internal and external responsibilities and communication were established. The four Municipality sectors who manage energy issues (purchase of goods and Energy Services, data analysis, energy billing, energy planning, design, operational control and monitoring have been involved in the Energy Team coordinated the Energy Manager, Eng. Sabino Petrillo. SEAP development and implementation activities have been focused on involving in the process several key actors of the territory (residential, tertiary, mobility) in order to communicate the ISO 50001 achievements and stimulate energy efficiency measures, coordinated by the Municipality, in the private sectors who represent significant energy use in the territory.

Energy savings due to implementation and operation of the EnMS in the first six months are 423 GJ. This leads to the energy cost savings of 11,300 EUR, and a simple payback time of 0.75 years. The total CO₂ emission savings are expected to reach 311 metric tons. Learn more about Montecchio Maggiore [here](#).

Executive summaries in national languages

Kopsavilkums

ISO 5001 un citi enerģijas pārvaldības standarti var atbalstīt un sekmēt pašvaldības centienus lietot enerģiju efektīvāk visos sektoros. Šie standarti skaidro, kā izveidot, ieviest, uzturēt un uzlabot energopārvaldības sistēmu, ļaujot pašvaldībām sasniegt nepārtrauktus panākumus visās enerģijas pārvaldības jomās, tajā skaitā – efektivitāte, drošība un patēriņš.

Projekts 50000&1SEAPs paredz vienotu pieeju energopārvaldības sistēmas (EPS) integrēšanai ilgtspējīgas enerģētikas rīcības plānos (IERP), saskaņā ar energopārvaldības standartiem, piemēram, ISO 50001 un Eiropas enerģētikas balva, izveidojot kvalitātes vadības sertifikācijas sistēmu pašvaldībām, kuras veic ilgtspējīgu energoplānošanu. Projekta mērķis ir palīdzēt pašvaldībām pārvarēt šķēršļus, kas traucē rīcības plānu institucionalizāciju un stiprināt iekšējās struktūras un procedūras, lai veidotu augstas kvalitātes ilgtermiņa enerģētikas politiku un plānošanu.

Balstoties uz projekta rezultātiem, 50000&1SEAPs konsorcijs ir identificējis sešus galvenos priekšlikumus, lai nodrošinātu, ka ilgtspējīga pieeja pašvaldības līmeņa enerģētikas politikai un plānošanai tiks izplatīta un stiprināta plašāk visā Eiropā.

Rekomendācija Nr.1: iedrošināt pašvaldības algot energopārvaldnieku. Energopārvaldnieks ir galvenais speciālists, kas var nodrošināt IERP integrāciju pašvaldības ikdienas darbībā. Ar sākotnējo izpratni par enerģijas patēriņu un tā potenciālu iekārtās un infrastruktūrā (piemēram, publiskās ēkas, publiskais apgaismojums un sabiedriskais transports), energopārvaldnieks spēs ieviest IERP pasākumus.

Rekomendācija Nr.2: stimulēt centralizētu enerģijas datu vākšanu. Enerģijas patēriņa datu pārzināšana un izpratne ir pirmais fundamentālais solis, lai izveidotu, ieviestu un uzturētu veiksmīgu IERP.

Rekomendācija Nr.3: valsts likumdošanā ieviest prasības energopārvaldības sistēmas izveidei un sertificēšanai pašvaldībās. Augšupejoša pieeja, tas ir, stipra iesaiste un iedrošināšana no vietējām pašvaldībām spēlē galveno lomu reģionāla un nacionāla līmeņa energoefektivitātes mērķu sasniegšanā.

Rekomendācija Nr.4: mācīties no citu valstu pieredzes un ieviest labās prakses piemērus energopārvaldībā.

Rekomendācija Nr.5: veicināt pieejamo rīku lietošanu vietējo pašvaldību energopārvaldībā, lai veiktu efektīvus un plašākus nepārtrauktus uzlabojumus.

Rekomendācija Nr.6: ieviest energopārvaldības sistēmas vietējās pašvaldībās un nodrošināt tos ieguvumus, ko sniedz standartizācija, palielinot uzticamību un samazinot investīciju riskus.

Resumen ejecutivo

La ISO 50001 y otras normas de gestión de la energía pueden facilitar los esfuerzos de los municipios para utilizar la energía de manera más eficiente en todos los sectores. Estas normas establecen cómo establecer, implementar, mantener y mejorar un SGE, permitiendo a una organización lograr un éxito continuo en todas las áreas de rendimiento energético, incluyendo eficiencia, seguridad y consumo.

50000 & 1 SEAP ha proporcionado un enfoque coherente para integrar los Sistemas de Gestión de Energía (SGE) con los PAES de acuerdo con la norma de gestión energética como ISO 50001 y European Energy Award como sistema de certificación de gestión de calidad para municipios comprometidos con la planificación energética sostenible. Su objetivo era ayudar a las municipalidades a superar las barreras que obstaculizaban la institucionalización de sus planes de acción y reforzar las estructuras y procedimientos internos para una política energética y planificación de calidad a largo plazo.

Sobre la base de los resultados del proyecto, el consorcio 50000 & 1SEAPs ha identificado seis recomendaciones principales para asegurar que los enfoques sostenibles de la política energética local y la planificación se difundan y se fortalezcan en toda Europa.

Recomendación 1: Alentar a los municipios a contratar un gestor de energía. El gestor de energía es un elemento central para asegurar la integración del PAES en la vida cotidiana y la gestión en un municipio. A través de la comprensión inicial del consumo de energía y el potencial en instalaciones e infraestructura (como edificios públicos, alumbrado público y flota pública), el gestor de energía será capaz de seguir con las acciones PAES.

Recomendación 2: Estimular la recogida centralizada de datos energéticos. El conocimiento de los datos de consumo de energía representa el primer paso fundamental para desarrollar, implementar y monitorear un PAES exitoso.

Recomendación 3: Introducir requisitos en la legislación nacional para el sistema de gestión energética en las autoridades locales. El enfoque ascendente, es decir, la fuerte participación y el estímulo de las autoridades locales, desempeñan un papel central a nivel regional y nacional para alcanzar los objetivos de eficiencia energética.

Recomendación 4: Aprender y aplicar las mejores prácticas en la gestión de la energía de todo el mundo.

Recomendación 5: Promover el uso de las herramientas disponibles para una mejora continua y eficiente de la gestión de la energía en las autoridades locales.

Recomendación 6: De la gestión de la energía en las autoridades locales hacia los beneficios de la normalización, aumentando la credibilidad y reduciendo el riesgo de las inversiones.

Резюме

ISO 50001 и други стандарти за енергиен мениджмънт са инструменти, които подпомагат общините за по-ефективно използване на енергията във всички сектори. Тези стандарти определят как да се създаде, изпълни, поддържа и подобрява една система за управление на енергията, която в същото време позволява да се постига постоянен успех по отношение ефективност, сигурност и консумация на енергия.

Проект 50000&1 SEAPs осигурява съгласуван подход за интегриране на Планове за действие за устойчива енергия (ПДУЕ) със Системи за управление на енергията (СУЕ), като ISO 50001 и Европейската енергийна награда, представляващи сертификационни системи за управление на качеството за общини, ангажирани с устойчиво енергийно планиране. Проектът има за цел да подпомогне общините да преодолеят бариерите, възпрепятстващи институционализирането на техните ПДУЕ и укрепването на вътрешните структури и процедури за висококачествена и дългосрочна енергийна политика и планиране.

На базата на резултатите от проект 50000&1 SEAPs, консорциумът идентифицира шест основни препоръки, като гаранция, че устойчивият подход към енергийна политика и планиране на местно ниво допълнително се разпространяват и засилват в Европа с прилагането на интегрирания подход СУЕ+ПДУЕ.

Препоръка 1: Насърчаване на общините да назначат енергиен мениджър. Енергийният мениджър е основният елемент, който да гарантира интеграцията на ПДУЕ в ежедневната дейност и управление на общината. Чрез първоначален преглед на енергийната консумация и потенциала на съоръженията и инфраструктурата (като публични сгради, публично осветление и публичен транспорт), енергийният мениджър ще може ефективно да изпълнява заложените в ПДУЕ действия.

Препоръка 2: Стимулиране на централизираното събиране на енергийни данни. Познаването на данните за енергийно потребление представлява първата основна стъпка за разработване, изпълнение и мониторинг на успешен ПДУЕ.

Препоръка 3: Въвеждане на изисквания в националното законодателство за системи за управление на енергията от местните власти. Вертикалният подход, т.е. силен ангажимент и насърчаване на местните власти, играе основна роля на регионално и национално ниво за постигане на целите за енергийна ефективност.

Препоръка 4: Следване и прилагане на добри практики за енергиен мениджмънт от целия свят.

Препоръка 5: Стимулиране на използването на наличните инструменти за ефективно и постоянно подобряване на енергийния мениджмънт от страна на местните власти.

Препоръка 6: От енергиен мениджмънт в местните власти към ползи от повишаване на надеждността и инвестициите за намаляване на риска чрез стандартизация.

Sumar Executiv

Standardul ISO 50001 și alte standarde de management energetic pot facilita eforturile municipalităților de a utiliza mai eficient energia în toate sectoarele. Aceste standarde stabilesc modalitatea de a institui, implementa, menține și îmbunătăți un EnMS, permițând unei organizații să obțină succes continuu în toate domeniile performanței energetice, incluzând eficiența, securitatea și consumul.

Proiectul 50000&1 SEAP a oferit o abordare coerentă pentru integrarea sistemelor de management energetic (ENMS) cu SEAP-ul în conformitate cu standardele de management energetic, cum ar fi ISO 50001 și European Energy Award, ca sistem de certificare a managementului calității pentru municipalități angajate în planificarea energiei durabile. Scopul a fost acela de a ajuta municipalitățile să depășească barierele care blochează instituționalizarea planurilor lor de acțiune și să consolideze structurile și procedurile interne pentru o politică și o planificare energetică de înaltă calitate, pe termen lung.

Pe baza rezultatelor proiectului, consorțiul 50000 & 1SEAPs a identificat șase recomandări principale pentru a se asigura că abordările durabile ale politicii și planificării energetice locale sunt răspândite și consolidate în Europa.

Recomandarea 1: Încurajați municipalitățile să angajeze un manager energetic. Managerul energetic este un element esențial pentru asigurarea integrării SEAP în viața de zi cu zi și a managementul într-o municipalitate. Prin înțelegerea inițială a consumului și a potențialului de energie în instalații și infrastructură (cum ar fi clădirile publice, iluminatul public și flota publică), managerul energetic va putea urma acțiunile din SEAP.

Recomandarea 2: Stimularea colectării centralizate a datelor privind energia. Cunoașterea datelor despre consumul de energie reprezintă primul pas fundamental pentru dezvoltarea, implementarea și monitorizarea unui SEAP de succes.

Recomandarea 3: Introducerea cerinței în legislația națională pentru sistemul de management al energiei în autoritățile locale. Abordarea de jos în sus, adică implicarea și încurajarea puternică a autorităților locale joacă un rol esențial la nivel regional și național pentru atingerea obiectivelor privind eficiența energetică.

Recomandarea 4: Învățați și aplicați cele mai bune practici în managementul energiei din întreaga lume.

Recomandarea 5: Promovarea utilizării instrumentelor disponibile pentru îmbunătățirea continuă și eficientă a gestionării energiei în cadrul autorităților locale.

Recomandarea 6: De la gestionarea energiei în autoritățile locale spre beneficiile standardizării creșterii credibilității și a reducerii investițiilor.

Sintesi dei contenuti

La ISO 50001 così come altri standard legati alla gestione dell'energia possono facilitare gli sforzi compiuti dai Comuni per utilizzare l'energia in modo più efficiente in tutti i settori. Questi standard illustrano come stabilire, implementare, mantenere e migliorare un Sistema di Gestione dell'Energia, permettendo ad un'organizzazione di ottenere un miglioramento della prestazione energetica in tutti i settori, compresa l'efficienza, la sicurezza e il consumo di energia.

Il progetto 50000&1 SEAPs fornisce un approccio coerente per integrare i Sistemi di Gestione dell'Energia (EnMS) con i PAES secondo quanto previsto da standard di gestione dell'energia quali ISO 50001 e European Energy Award, come sistema di certificazione della gestione della qualità per i Comuni impegnati nella pianificazione sostenibile dell'energia. Il progetto mira ad aiutare i Comuni a superare le barriere che bloccherebbero l'istituzionalizzazione dei loro Piani d'Azione ed allo stesso tempo a rafforzare strutture e procedure interne finalizzate all'attuazione della politica energetica dell'Ente e della pianificazione energetica con un alto livello di qualità ed una visione a lungo termine.

Sulla base dei risultati del progetto, il consorzio 50000&1 SEAPs ha individuato sei principali raccomandazioni per garantire che gli approcci sostenibili alla politica energetica locale e alla pianificazione siano diffusi e rafforzati ulteriormente in tutta Europa.

Raccomandazione 1: Incoraggiare i Comuni a designare un Energy Manager. Quella dell'Energy Manager è una figura fondamentale per garantire l'integrazione PAES nella vita quotidiana e nella gestione energetica di un Ente Locale. Attraverso la conoscenza delle prestazioni energetiche di riferimento e dei potenziali di efficienza energetica raggiungibili nelle strutture e infrastrutture a gestione diretta (come gli edifici pubblici, l'illuminazione pubblica e la flotta pubblica), l'Energy Manager sarà in grado di seguire l'attuazione delle azioni del PAES.

Raccomandazione 2: Stimolare la raccolta e l'analisi dei dati sulle prestazioni energetiche a livello centralizzato. La conoscenza dei dati sul consumo energetico rappresenta il primo passo fondamentale per sviluppare, implementare e monitorare un PAES di successo.

Raccomandazione 3: Introdurre la consuetudine del rispetto dei requisiti legislativi vigenti a livello regionale, nazionale e sovranazionale conformi ai requisiti dei sistemi di gestione dell'energia nelle autorità locali. L'approccio bottom up, vale a dire il forte coinvolgimento e l'incoraggiamento delle autorità locali svolgono un ruolo fondamentale a livello regionale e nazionale per raggiungere obiettivi di efficienza energetica.

Raccomandazione 4: Imparare e applicare le migliori pratiche nella gestione dell'energia da esperienze di altre organizzazioni provenienti da tutto il mondo.

Raccomandazione 5: Promuovere l'utilizzo di strumenti disponibili per un miglioramento continuo e efficiente della gestione energetica nelle autorità locali.

Raccomandazione 6: L'attuazione dei Sistemi di Gestione dell'Energia negli Enti Locali come lo Standard ISO 50001 aumenta la credibilità delle politiche energetiche dell'Ente riducendo al contempo i rischi sugli investimenti.

Σύνοψη

Το πρότυπο ISO 50001 και άλλα πρότυπα διαχείρισης της ενέργειας μπορούν να διευκολύνουν τις προσπάθειες των Δήμων να χρησιμοποιούν πιο αποτελεσματικά την ενέργεια σε όλους τους τομείς. Αυτά τα πρότυπα περιγράφουν τον τρόπο δημιουργίας, εφαρμογής, διατήρησης και βελτίωσης ενός Συστήματος Διαχείρισης Ενέργειας (ΣΔΕ), επιτρέποντας σε έναν οργανισμό να έχει διαρκή επιτυχία σε όλους τους τομείς της ενεργειακής απόδοσης, συμπεριλαμβανομένης της αποτελεσματικότητας, της ασφάλειας και της κατανάλωσης.

Το έργο 50000 & 1 SEAPs παρέχει μια συνεκτική προσέγγιση για την ενσωμάτωση των Συστημάτων Διαχείρισης Ενέργειας με τα ΣΔΑΕ σύμφωνα με τα πρότυπα διαχείρισης ενέργειας όπως το ISO 50001 και το European Energy Award, ως σύστημα πιστοποίησης της διαχείρισης της ποιότητας για τους Δήμους που έχουν αναλάβει τη δέσμευση για αειφόρο ενεργειακό σχεδιασμό. Σκοπός του ήταν να βοηθήσει τους Δήμους να ξεπεράσουν τα εμπόδια για τη θεσμοθέτηση των Σχεδίων Δράσης τους και να ενισχύσουν τις εσωτερικές δομές και διαδικασίες για την ποιοτική, μακροπρόθεσμη, ενεργειακή πολιτική και τον προγραμματισμό.

Με βάση τα αποτελέσματα του έργου, η κοινοπραξία του έργου 50000 & 1SEAPs έχει εντοπίσει έξι κύριες συστάσεις για να εξασφαλίσει ότι οι αιεφόρες προσεγγίσεις στην τοπική ενεργειακή πολιτική και τον προγραμματισμό θα διαδοθούν και θα ενισχυθούν περαιτέρω σε ολόκληρη την Ευρώπη.

Σύσταση 1: Ενθάρρυνση των Δήμων να ορίσουν ενεργειακό διαχειριστή. Ο ενεργειακός διαχειριστής αποτελεί βασικό στοιχείο για να εξασφαλιστεί η ενσωμάτωση του ΣΔΑΕ στην καθημερινή ζωή και διαχείριση σε ένα Δήμο. Μέσω της αρχικής κατανόησης της κατανάλωσης ενέργειας και των δυνατοτήτων σε εγκαταστάσεις και υποδομές (όπως δημοτικά κτίρια, δημοτικός φωτισμός και δημοτικός στόλος), ο ενεργειακός διαχειριστής θα μπορέσει να υλοποιήσει και παρακολουθήσει δράσεις του ΣΔΑΕ.

Σύσταση 2: Ενθάρρυνση της κεντρικής συλλογής ενεργειακών δεδομένων. Η γνώση των δεδομένων ενεργειακής κατανάλωσης αποτελεί το πρώτο θεμελιώδες βήμα για την ανάπτυξη, εφαρμογή και παρακολούθηση ενός επιτυχημένου ΣΔΑΕ.

Σύσταση 3: Εισαγωγή απαίτησης στην εθνική νομοθεσία για το σύστημα διαχείρισης ενέργειας στις τοπικές αρχές. Η προσέγγιση από κάτω προς τα πάνω, δηλαδή η ισχυρή συμμετοχή και ενθάρρυνση των τοπικών αρχών, διαδραματίζουν κεντρικό ρόλο σε περιφερειακό και εθνικό επίπεδο για την επίτευξη στόχων ενεργειακής απόδοσης.

Σύσταση 4: Εκμάθηση και εφαρμογή βέλτιστων πρακτικών στον τομέα της διαχείρισης ενέργειας από όλο τον κόσμο.

Σύσταση 5: Προώθηση της χρήσης των διαθέσιμων εργαλείων για αποτελεσματική και ευρύτερη συνεχή βελτίωση της διαχείρισης της ενέργειας από τις τοπικές αρχές.

Σύσταση 6: Από την ενεργειακή διαχείριση στις τοπικές αρχές καταλήγουμε στα οφέλη της τυποποίησης, αυξάνοντας την αξιοπιστία και μειώνοντας το ρίσκο τις επενδύσεις.

Streszczenie

Wykorzystanie ISO 50001 i innych norm zarządzania energią wspiera starania gmin zmierzające do bardziej efektywnego wykorzystania energii we wszystkich sektorach. Standardy te określają, w jaki sposób wdrażać, utrzymać i doskonalić system zarządzania energią (SZE), co pozwoli organizacji osiągać trwały sukces we wszystkich obszarach związanych z wydajnością energetyczną, w tym w obszarze efektywności, bezpieczeństwa i konsumpcji.

Projekt 50000&1 SEAPs zapewnił spójne podejście do integracji SZE z SEAP zgodnie z normami zarządzania energią, takimi jak ISO 50001 i Europejska Nagroda Energetyczna (European Energy Award), stanowiącymi system certyfikacji zarządzania jakością dla gmin zaangażowanych w zrównoważone planowanie energetyczne. Celem działań projektowych była pomoc gminom w przewyżczeniu przeszkód utrudniających zinstytucjonalizowanie ich planów działań oraz wzmocnienie wewnętrznych struktur i procedur mających wpływ na kształtowanie wysokiej jakości długoterminowej polityki energetycznej i planowania energetycznego.

Na podstawie wyników projektu, konsorcjum 50000 i 1SEAPs określiło sześć głównych rekomendacji w celu zapewnienia, że zrównoważone podejście do lokalnej polityki energetycznej i planowania zostanie rozpowszechnione i wzmocnione w całej Europie.

Zalecenie 1: Zachęcanie gmin do zatrudniania specjalisty ds. energii, którego praca stanowi element kluczowy dla zapewnienia związku SEAPu z życiem codziennym i zarządzaniem w gminie. Dzięki wiedzy na temat wstępnego zużycia energii i potencjału jej oszczędności w obiektach i infrastrukturze (budynki publiczne, oświetlenie publiczne i flota publiczna), specjalista ds. energii będzie mógł śledzić realizację działań przewidzianych w SEAP.

Zalecenie 2: Stymulowanie centralnego gromadzenia danych dotyczących energii. Znajomość danych dotyczących zużycia energii jest pierwszym podstawowym krokiem w kierunku opracowania, wdrożenia i monitorowania udanego SEAPu.

Zalecenie 3: Wprowadzenie w ustawodawstwie krajowym wymogu dotyczącego korzystania z systemu zarządzania energią przez władze lokalne. Oddolne podejście, tj. intensywne zaangażowanie i zachęcanie władz lokalnych odgrywaj na szczeblu regionalnym i krajowym kluczową rolę w osiągnięciu obranych celów w zakresie efektywności energetycznej.

Zalecenie 4: Poznawanie i stosowanie najlepszych praktyk z całego świata w zakresie zarządzania energią.

Zalecenie 5: Promowanie korzystania z dostępnych narzędzi służących skutecznemu, szerszemu i ciągłemu doskonaleniu zarządzania energią przez władze lokalne.

Zalecenie 6: Od zarządzania energią w samorządzie do korzyści ze standaryzacji, zwiększającej wiarygodność inwestycji i zmniejszenie ryzyka.

Résumé

ISO 50001 et les autres normes de gestion de l'énergie peuvent faciliter les efforts des collectivités pour utiliser de manière plus efficace l'énergie dans tous les secteurs. Ces normes exposent comment établir, implémenter, maintenir et améliorer un système de gestion de l'énergie, permettant à l'organisation d'achever avec succès et de manière continue dans tous les domaines de la performance énergétique, y comprise l'efficacité, la sécurité et la consommation.

Le projet «50000&1 SEAPs » fournit une approche cohérente à l'intégration de Systèmes de Management de l'Énergie (EnMS) avec des SEAPs selon des normes de management de l'énergie comme l'ISO 50001 et «European Energy Award » (Cit'ergie) comme le système de certification de management de qualité pour des collectivités qui se sont engagées à la planification d'énergie durable. Il a pour but d'aider des municipalités à surmonter les barrières bloquant l'institutionnalisation de leurs plans d'action et de renforcer les structures internes et les procédures pour une politique énergétique et une planification de haute qualité, sur le long terme.

En se basant sur les résultats du projet, le consortium 50000&1SEAPs a identifié 6 recommandations pour assurer des approches durables à la politique énergétique locale et des calendriers sont partagés et renforcés à travers l'Europe

Recommandation n°1: Encourager les collectivités à embaucher un manager de l'énergie. Ce manager est un élément central pour permettre l'intégration du SEAP - PCET dans la vie quotidienne et la gestion au sein de la municipalité. A l'aide de la compréhension initiale de la consommation d'énergie et du potentiel des installations et infrastructures (comme les bâtiments communaux, l'éclairage public et la flotte publique), le manager en énergie sera capable de suivre les actions du PCET.

Recommandation n°2: Stimuler la centralisation de la collecte des données énergétiques. La connaissance des données de consommation d'énergie représente la première étape fondamentale pour développer, implémenter et gérer un PCET réussi.

Recommandation n°3 Introduire une condition nécessaire dans la législation nationale en terme de système de gestion d'énergie pour les collectivités. Une approche de bas en haut, c'est-à-dire un investissement et encouragement fort des collectivités joue un rôle primordial au niveau régional et national pour atteindre les objectifs d'efficacité énergétique.

Recommandation n°4: Apprendre des meilleurs exemples en terme de gestion de l'énergie à travers le monde et les appliquer

Recommandation n°5: Promouvoir l'utilisation d'outils disponibles pour une amélioration continue et large de la gestion d'énergie au sein des collectivités.

Recommandation n°6: De la gestion d'énergie au sein des collectivités vers les bénéfices de la normalisation augmente la crédibilité et réduisant les risques liés aux investissements

CONSORTIUM:

SOGESCA (Coordinator) - www.sogesca.it

CRES - www.cres.gr

PNEC - www.pnec.org.pl

EKODOMA - www.ekodoma.lv

ARM - www.arm-bg.net

ECQ - www.ecq-bg.com

AMET - www.amet.ro

DENKSTATT - www.denkstatt.ro

DEPUTACION OURENSE - www.depourense.es

ALBEA - www.albea-transenergy.com

AMORCE - www.amorce.asso.fr

MT PARTENAIRES INGÉNIERIE - www.mt-partenaires.com

ICLEI Europe - www.iclei-europe.org

