



Energy Efficiency Agreement for Industries
Company Accession Document
Action Plan for Energy Production

Company: _____
(Name of the Company)

joins the Action Plan for Energy Production of the Energy Efficiency Agreement for Industries with this document and its appendices (Accession Details, Action Plan), and commits itself to implementing the Action Plan attached to this document.

The Company joins the Energy Efficiency Agreement for Industries once the Finnish Energy has established that the accession document signed by the Company and the accession details attached to the document are in due form and the association has submitted a copy of the documents to be entered into the participant register.

Implementation of the agreement

In order to achieve the targets of the Energy Efficiency Agreement for Industries, the Company

- in general, includes all of its sites in Finland and their energy use in the Action Plan, as referred to in section 1.3 of the Action Plan
- on joining the agreement scheme, sets indicative energy savings targets for 2020 and 2025, as defined in section 2.2 of the Action Plan; the implementation of the targets will be monitored as described in the Action Plan
- commits itself to contributing to the implementation of the Energy Efficiency Agreement for Industries, as described in section 3.4, "Obligations of the Company" of the attached Action Plan.

Termination by the Company's withdrawal, dismissal of the Company and the Company's withdrawal

The agreement that joins the Company in the scheme is valid until 31 December 2025, unless the reasons due to a termination by the Company's withdrawal (section 5.1), dismissal of the Company (section 5.2), or the Company's withdrawal (section 5.3) cause otherwise. In addition, the agreement that joins the Company in the scheme becomes void if the Energy Efficiency Agreement for Industries or the Action Plan attached to the agreement is terminated due to fundamental changes in the operating environment or conditions.

Other terms

The achievement of the indicative energy savings targets set in the Action Plan for Energy Production for 2020 and 2025 are monitored and, if necessary, the management group of the Energy Efficiency Agreement for Industries prepares the proposals for necessary changes, if it seems unlikely that the set targets can be achieved.

The judicial nature of the Energy Efficiency Agreement for Industries is comparable to a target plan, and in addition to the fact that the Company will potentially be dismissed from the Energy Efficiency Agreement for Industries, the failure to meet the obligations of the Action Plan will not result in any legal consequences, other than that which is referred to in sections 5.1 and 5.2 of the Action Plan on state subsidies.

The parties to the Energy Efficiency Agreement for Industries and the companies which have joined in this Action Plan shall aim to act in such a manner that the targets, in accordance with the agreement, will be fulfilled.

Signature

Place and date

Signature of the Company

Name in block capitals

Two copies of the filled and signed accession document¹ and the accession details are to be submitted to the following address:
Energiateollisuus ry/ Energiatehokkuussopimus, P.O. Box 100, FI-00101 HELSINKI, FINLAND

To be filled in by the industry association:

| | |
|---------------------------|------------------------|
| Accession approved (date) | Accession number |
| Signature of the acceptor | Name in block capitals |

¹ The second copy of the accession document will be returned to the Company after approval.



Accession Details

1 Company

| | |
|----------------|--|
| Company | |
| Postal address | |
| Postal code | |
| Town | |
| Website | |
| Business ID | |

2 Person in charge of the Energy Efficiency Agreement¹

| | |
|-----------------------------|--|
| Name | |
| Job title | |
| Site ² | |
| Postal address ² | |
| Postal code ² | |
| Town ² | |
| Telephone | |
| Mobile | |
| E-mail | |

3 Company's sites³

In general, the Company includes all of its sites in Finland in the Energy Efficiency Agreement for Industries.

The total number of sites in this Action Plan is _____

The Company's sites and their persons in charge are specified in the table at the end of this appendix. The annual reporting in accordance with the agreement is to be made by operation.

¹ The person in charge of the agreement acts as a contact person in matters related to the implementation of this Action Plan, and also as the person in charge of the Company's sites, unless such persons are not specified separately.

² Please leave this field empty, if the site details of the Company's Person in charge of the Energy Efficiency Agreement are the same as the corresponding details of the Company above.

³ Site means a power/heating plant.

**4 Energy production included in the agreement in _____⁴**

Energy production of the sites⁵ to be included in the agreement in accordance with section 1.3. of the Company's Action Plan is presented in the table below.

Total energy production of the sites to be included in the agreement:

| | | |
|--|--|-----|
| Electricity generation in power plants | | GWh |
| Heat production in power plants | | GWh |
| Heat production in heating plants | | GWh |
| Production of district cooling energy | | GWh |

5 Indicative energy savings targets for 2020 and 2025

In general, the Company includes all of its energy use⁶ in the Energy Efficiency Agreement for Industries, and, on joining the agreement, sets an indicative energy savings target for the period 2017–2025 and an intermediate target for 2020.

In accordance with section 2.2 of the Action Plan, the indicative target is set for the savings in the use of primary energy and for improvement in electricity generation, calculated in electric energy (MWh) for 2020 and 2025, and compared against a situation where no measures are taken and reported during the agreement period.

The Company's energy use in the target years 2020 and 2025 is not required to be lower than the baseline included in the agreement.

The Company's indicative quantitative energy savings targets (MWh) for 2020 and 2025 are specified in the table below.

The energy savings targets set by the Company for the agreement period 2017–2025:

| | Primary energy savings ⁷ | Improvement in electricity generation | |
|------------------------------|-------------------------------------|---------------------------------------|-----|
| Intermediate target for 2020 | | | MWh |
| Overall target for 2025 | | | MWh |

⁴ The year of the data presented in the table.

⁵ Total production of the power/heating plants specified in the table at the end of this document in accordance with section 3 of this appendix.

⁶ Electricity, heat and fuels

⁷ Net heat contents published by Statistics Finland are used as the conversion factors for energy unit (publication from 2014: http://pxweb2.stat.fi/sahkoiset_julkaisut/energia2014/html/suom0018.htm).



6 Annual reporting of the Energy Efficiency Agreements – energy data

We request authorisation to annually hand over to Motiva Ltd company-specific information on the survey on electricity, district heat and district cooling statistics for the purpose of monitoring, reporting and impact assessment of the Energy Efficiency Agreement for Industries 2017–2025.

The bodies gathering the information regarding the survey on electricity, district heat and district cooling statistics⁸ (hereinafter the People responsible for Statistics) will hand over the information to Motiva Ltd, which has made a pledge of confidentiality on company-specific information. The information of the statistics survey will be utilised in the company-specific annual reporting of the Energy Efficiency Agreement, so that part of the information in the annual report (energy data) can be transferred to be used in the monitoring system of the agreement scheme on the basis of the information obtained from the statistics survey.

The information will be entered in the monitoring system of the Energy Efficiency Agreement scheme administered by Motiva Ltd, as commissioned by the Energy Authority, and the information will be used in the summaries regarding the monitoring and impact assessment of the Energy Efficiency Agreements. The summaries and reports of the Energy Efficiency Agreements, drawn up and published, based on the company-specific annual reports, will not contain any company-specific information.

If your company does not provide authorisation for the People responsible for Statistics to use the individualised material in your possession, you will be requested for this information in connection with the annual reporting of the Energy Efficiency Agreement. The purpose of the authorisation is to reduce the duplicated burden of information reporting placed on the companies and also to ensure the consistency of the information.

Authorisation

We authorise the People responsible for Statistics to annually hand over information on the survey on electricity, district heat and district cooling statistics with respect to our company, to Motiva Ltd to be used in the reporting of the Energy Efficiency Agreement for Industries 2017–2025. The authorisation will be valid until the end of 2026, unless Motiva Ltd⁹ and the Energy Authority¹⁰ are not separately notified in writing of the termination of the authorisation.

☐ Yes, we give authorisation

We do not give authorisation to hand over information on the survey on electricity, district heat and district cooling statistics with respect to our company to Motiva Ltd, but we will report the energy data required by the annual reporting of the Energy Efficiency Agreement for Industries into the monitoring system of the Energy Efficiency Agreement scheme annually by the end of April.

☐ We do not give authorisation

Signature

Place and date

Company

Signature

Name in block capitals

⁸ Bodies mean parties acting in co-operation in the production of electricity and district heat statistics. These kinds of bodies include the Finnish Energy and Statistics Finland. Another body is the Energy Authority, which gathers information from electricity network operators.

⁹ seuranta-apu@motiva.fi

¹⁰ kirjaamo@energiavirasto.fi



| | Name of the site | Report template ¹¹ |
|----|---|-------------------------------|
| | Name and e-mail address of the person in charge of the site ¹² | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |

If the number of sites/groups of sites exceeds 14, this page can be copied, as necessary.

¹¹ Mark VL = power plant and KL = separate production of district heat. This is used for determining the template for annual reporting in the monitoring system of the Energy Efficiency Agreement scheme. In case of doubt, please contact seuranta-apu@motiva.fi

¹² If a site-specific person in charge is not appointed, the person in charge of the agreement, specified in section 2, also acts as the person in charge of the site in question.



Energy Efficiency Agreement for Industries Action Plan for Energy Production

With this Action Plan, the Finnish Energy (hereinafter the Industry Association) shall implement the Energy Efficiency Agreement for Industries, which is an agreement on the promotion of energy efficiency in 2017–2025 between the Ministry of Employment and the Economy (hereinafter the Ministry), the Energy Authority, the Confederation of Finnish Industries EK (hereinafter the Confederation) and the industry associations.

The joint management group of the Ministry, the Energy Authority, the Confederation and the industry associations will monitor and steer the implementation of the Energy Efficiency Agreement for Industries and, when necessary, makes proposals on its development. The starting points and grounds for the agreement, and the tasks of the management group, are described in the Energy Efficiency Agreement for Industries signed by the above parties to the agreement.

This Action Plan presents the targets and obligations to which the company joining the Energy Efficiency Agreement for Industries (hereinafter the Company) is committed itself to, and the procedures for termination of the agreement, for dismissal of the Company, and for the Company's withdrawal, and any potential consequences. In addition, this Action Plan presents the actions by the Ministry, the Energy Authority and the Industry Association in accordance with the agreement, and the relationship to the implementation of the Energy Efficiency Act in a large company.

1 Agreement period, target group and joining the agreement scheme

1.1 Agreement period and agreement terms

The agreement period 2017–2025 of the Energy Efficiency Agreement for Industries is divided into two terms: term 2017–2020 (4 years) and term 2021–2025 (5 years), the total agreement period being 9 years.

1.2 Target group

In general, the Action Plan for Energy Production of the Energy Efficiency Agreement for Industries is joined by the companies with the generation of electricity and/or the production of heat or district cooling energy¹.

1.3 Joining the agreement

Joining the Energy Efficiency Agreement for Industries means that a company joins one or more Action Plans of the Energy Efficiency Agreement for Industries with a separate accession document.

In general, the Company includes all of its sites² in Finland and their energy use³ in the Energy Efficiency Agreement for Industries.

To join the Action Plan for Energy Production, the Company must submit an appropriately filled in and signed accession document and the accession details attached to the document to the Industry Association. The Company joins the Energy Efficiency Agreement for Industries once the Industry Association has established that the signed accession document and the accession details are in due form and the association has submitted a copy of the documents to Motiva Ltd to be entered into the participant register.

¹ This Action Plan does not cover energy production within the scope of another Action Plan.

² Site means a power/heating plant.

³ Electricity, heat and fuels

The procedures for a company to terminate its membership or for dismissing a company from the scheme and any potential consequences are described in section 5.

2 Targets of the Action Plan

2.1 Target of the Industry Association

The target is to include 85% of the electricity generation and 70% of the district heat production within the scope of the Energy Efficiency Agreement for Industries by the end of 2018.

The target of the Action Plan for savings in the use of primary energy and for improvement in electricity generation, calculated in electrical energy, consist of the improvement targets set by the companies for 2020 and 2025.

2.2 Target of the Company

Setting the target

On joining the Energy Efficiency Agreement for Industries (2017–2025), the Company sets an indicative energy savings target for the period 2017–2025 and an intermediate target for 2020. The target is set for the savings in the use of primary energy and for improvement in electricity generation, calculated in electrical energy and compared against a situation where these new measures were not taken.

In general, the Company includes all of its energy use³ in the Energy Efficiency Agreement for Industries, as referred to in section 1.3. On joining the Action Plan, the Company presents an indicative savings target for the savings in the use of primary energy and for improvement in electricity generation, calculated in electrical energy (MWh) for 2020 and 2025.

If the above indicative targets set by the Company change fundamentally from the original due to significant structural or ownership changes that have taken place during the validity of the agreement, the Company may adjust the savings targets (MWh) for 2020 and 2025 to correspond with the new situation by notifying of the change and its reasons in connection with annual reporting into the monitoring system of the Energy Efficiency Agreement scheme.

Monitoring the achievement of the indicative targets set by the Company

An action can be accepted for monitoring the achievement of indicative targets, if the action is implemented by the Company during the agreement period 2017–2025, if it is reported to the monitoring system of the Energy Efficiency Agreement scheme, if the energy conservation impact of the action is still valid during the year in question, and if the action concerns the energy use included in the specification of the Company's target.

In this Action Plan, energy conservation means the implementation of the active measures to reduce the amount of energy needed for the production of electricity and/or heat from the current level, compared to the amount of energy that would be consumed without active measures. Correspondingly, the reduction of future energy consumption achieved by active measures can be counted as energy conservation.⁴ The efficiency improvement measures in energy production mean actions resulting in more efficient use of primary energy in power and heating plants, such as a more efficient utilisation of fuels or reduced hydropower spills, an increased efficiency or heat-to-power ratio in production, energy-efficient power upgrades, a reduction in

⁴ For example: (i) building new energy-efficient capacity (new investment), in so far as it replaces existing outgoing capacity, (ii) building entirely new capacity, in so far as its level of energy-efficiency is better than normal, and (iii) the procurement of a piece of equipment (for example, motors) that is higher than ecodesign level.



one's own consumption energy in the plants, or another enhance in the use of energy. The energy efficiency improvement measures may be technical or changes to procedures.

The Company's energy use³ in the target years 2020 and 2025 is not required to be lower than the baseline included in the agreement.

3 Implementation of the Action Plan

3.1 Obligations of the Industry association

In order to achieve the targets of the Action Plan, the Industry Association shall

- set up a steering group or appoint another body, in which the implementation of the Action Plan is monitored and discussed at least once a year
- encourage and advise companies to join the Energy Efficiency Agreement for Industries, take part in the introduction of the agreement, and support its execution
- verify that the accession document signed by the Company is in due form, accept the Company as a participant of the Energy Efficiency Agreement for Industries by signing the approved accession document of the Company, and submit a signed copy of the document to Motiva Ltd to be entered into the participant register
- together with Motiva Ltd, monitor the implementation of the savings targets of the companies which have joined the Action Plan for Energy Production of the Energy Efficiency Agreement for Industries
- participate, in co-operation with other parties to the Energy Efficiency Agreement for Industries, in the promotion of energy audit and analysis activities and the communication of the results and benefits of the energy management systems by providing information on, for example, concrete good examples
- participate in the implementation of the development and pilot projects in its own branch related to the execution of the agreement together with other parties to the agreement
- advise the companies which have joined to the Action Plan in reporting, and participate in the preparation of annual reporting and in the drawing up of the annual report related to the Action Plan⁵
- participate in the development of the Energy Efficiency Agreement scheme together with the Ministry, Confederation, companies in its own branch joining this agreement, the Energy Authority, and any other bodies participating in the implementation of the agreement scheme
- dismiss the Company, if the management group of the Energy Efficiency Agreement for Industries has so decided.

3.2 Obligations of the Ministry

In order to achieve the targets and taking into account the annual available appropriations, the Ministry shall

- support the energy audits and analyses on energy conservation by the companies, in accordance with the conditions for granting energy subsidy⁶. When determining the amount of subsidy, take into account as a positive factor the Company's commitment to long-term energy conservation and improvement of energy efficiency

⁵ The reports are summarised from the data reported annually by the companies.

⁶ The mandatory energy audits for large companies, as referred to in section 6 of the Energy Efficiency Act (1429/2014), will not be subsidised.



- support investments related to energy conservation established in the energy audits and analyses of the Company or in similar studies, meeting the general terms and conditions of energy subsidy. Projects promoting the introduction of new technologies and procedures take priority. When determining the amount of subsidy, take into account as a positive factor the Company's commitment to long-term energy conservation and improvement of energy efficiency
- participate in the development of the Energy Efficiency Agreement scheme together with the Energy Authority, Confederation, industry associations, and any other bodies participating in the implementation of the agreement scheme, in so far as the tasks are not assigned by the Ministry to the Energy Authority.

3.3 Obligations of the Energy Authority

In order to achieve the targets and taking into account the annual available appropriations, the Energy Authority, under the guidance of the Ministry, shall

- participate in the implementation of the Energy Efficiency Agreement scheme with adequate resources
- participate in the development of the Energy Efficiency Agreement scheme together with the Ministry, Confederation, industry associations, and any other bodies participating in the implementation of the agreement scheme, in so far as the tasks are assigned by the Ministry to the Energy Authority
- monitor the implementation of the targets of the Energy Efficiency Agreement for Industries
- participate in the implementation of the development and pilot projects related to the execution of the agreement together with other parties to the agreement
- monitor the fulfilment of the agreement obligations of the companies, send the company a notification on the failure to meet the agreement obligations, and prepare a proposal to the management group for further actions, due to the company's failure to meet the agreement obligations, if necessary
- allocate resources for Motiva Ltd, so that Motiva can maintain the participant register, produce information required for monitoring the implementation of the targets and realisation of the impacts of the agreement, monitor the implementation of the Action Plans, support the communication of the agreement scheme and maintain the website, participate in the development of the Energy Efficiency Agreement scheme, maintain and develop the monitoring system of the agreement scheme, participate in the compiling of annual reports of the Action Plans, support the execution of the companies' agreement by, for example, producing communication and training material on good practices, and participate in the implementation of development and pilot projects.

3.4 Obligations of the Company

In its accession document, the Company appoints a company-specific person in charge of the agreement and the site-specific persons in charge. The company-specific person in charge of the agreement acts as a contact person in matters related to the implementation of this Action Plan, and also as the site-specific person in charge, unless such persons are not specified separately.

The Company commits itself to the continuous improvement of energy efficiency by introducing an Energy Efficiency System EES (appendix)⁷ as follows:

- A company that has not participated in the Energy Efficiency Agreement for Industries in 2008–2016 incorporates the energy issues in the management system existing in the Company, in

⁷ Instead of the Energy Efficiency System [EES](#), the company can alternatively introduce an Energy Efficiency System [EES+](#) or an ISO 50001 energy management system.



accordance with an Energy Efficiency System EES, or alternatively, in accordance with an Energy Efficiency System EES⁺ or ISO 50001 energy management system, within 12 months of joining the Energy Efficiency Agreement.

- A company that has participated in the Energy Efficiency Agreement for Industries in 2008–2016 and therefore has already introduced an Energy Efficiency System EES continues using the said system or, alternatively, an EES⁺ or ISO 50001 energy management system.
- A management review is carried out to ensure that the selected energy efficiency or energy management system is appropriately implemented. The company commits itself to using the system meeting the requirements⁸ throughout the agreement period.

If a company or its site does not have a management system to which the continuous improvement of energy efficiency could be linked in a natural way, or if the introduction of such a management system would not be appropriate in the way described above, a separate energy efficiency improvement plan must be drawn up.

The energy efficiency improvement plan must specify the responsibilities of energy efficiency activities and identify the energy consumption in each site² by energy type (electricity, heat and fuels), within 12 months of joining the Energy Efficiency Agreement. Within two years of joining the agreement, the possibilities of improving the efficiency of energy use by site must be established, the targets for improving the efficiency of energy use for each site must be set, and a schedule for the implementation on cost-effective energy efficiency improvement measures must be drawn up. In addition to the organisation and planning of operations, the energy efficiency improvement plan must include the actions that support the implementation of the targets of the Company specified in section 2.2 by means of personnel training, internal communication, and taking energy efficiency into account in planning and procurement. The improvement plan is reviewed annually and updated, when necessary. A company that has participated in the Energy Efficiency Agreement scheme for industries in 2008–2016 and has drawn up the improvement plan as specified above reviews the plan annually and, when necessary, updates the plan.

The Company commits itself to reporting by the end of February each year⁹ on the previous year's energy use^{3,10}, on the related efficiency measures, and on the realisation of any other activities related to the Action Plan by site into the monitoring system of the Energy Efficiency Agreement. In connection with the reporting, the Company has the opportunity to make development proposals on operations, equipment, systems or services concerning the improvement of energy efficiency, in order to find or refine new energy-efficient innovations.

In addition, the Company aims to introduce new energy-efficient technology whenever it is technically and economically possible, taking health, safety and environmental aspects into consideration.

4 Steering group

The Industry Association appoints a steering group¹¹ to guide and monitor the implementation of the Action Plan for Energy Production of the Energy Efficiency Agreement for Industries. Representatives of bodies and companies in the branch, who are important with respect to the implementation of this Action Plan, will be invited to the steering group.

⁸ EES, EES⁺ or ISO 50001

⁹ On joining the Energy Efficiency Agreement for Industries, the Company commits itself to reporting the corresponding data for 2025 in 2026. If the Company withdraws from the agreement on 31 December 2020, it commits itself to reporting the data for 2020 in 2021.

¹⁰ If the Company provides the necessary authorisation when joining the agreement scheme, the energy use data can be transferred to the monitoring system of the Energy Efficiency Agreement scheme from the material gathered from the Finnish Energy for the purpose of surveys on electricity and district heat statistics.

¹¹ Or another body, in which the implementation of the Action Plan is monitored and discussed at least once a year.



The steering group monitors the progress of the implementation of the Action Plan in relation to the set targets and the implementation of other obligations related to the agreement scheme, and performs actions and makes development proposals related to the agreement scheme and its communication.

5 Termination of the agreement, dismissal from the agreement, potential consequences and withdrawal from the agreement

5.1 Termination by the Company's withdrawal from the agreement and potential consequences

The Company may withdraw from the Energy Efficiency Agreement for Industries by notifying the Energy Authority¹² and the Industry Association thereof in writing. In its notice of withdrawal, the Company commits itself to reporting any energy subsidies received during the agreement period on the basis of the Energy Efficiency Agreement.

The energy subsidies granted on the basis of this agreement and received by the Company withdrawing from the agreement may be collected, according to the conditions on the recovery recorded in the subsidy decision in question. The authority that has granted the subsidy will decide on the collection separately for each case.

5.2 Dismissal of the Company from the agreement and potential consequences

A company may be dismissed from the Energy Efficiency Agreement for Industries, if the Company does not fulfil the obligations it has undertaken on joining the agreement. The grounds for dismissal may be repeated failures to implement the Company's obligations in accordance with the agreement or to report the required information into the monitoring system of the Energy Efficiency Agreement scheme.

Upon detecting a failure to fulfil an agreement obligation, the Energy Authority will send the Company a notification. If the Company does not correct its operations appropriately within the prescribed time limit, the Energy Authority will prepare a proposal for further actions to the management group of the Energy Efficiency Agreement for Industries. The decision on the dismissal of the Company from the Energy Efficiency Agreement for Industries will always be made by the management group.

The energy subsidies granted on the basis of this agreement and received by the Company dismissed from the agreement may be collected, according to the conditions on the recovery recorded in the subsidy decision in question. The authority that has granted the subsidy will decide on the collection separately for each case.

5.3 Withdrawal of the Company from the Energy Efficiency Agreement for Industries on 31 December 2020

If the Company submits an appropriately filled accession document for the Energy Efficiency Agreement for Industries by 31 December 2018, the Company may withdraw from the agreement at the end of the first agreement term on 31 December 2020 without being subjected to the consequences related to the energy subsidies, described in sections 5.1 and 5.2⁹. The Company must notify the Energy Authority¹² and the Industry Association in writing of the withdrawal by the end of 2020.

The withdrawal procedure described here does not apply to the companies that submit the accession document on 1 January 2019 or later.

¹² kirjaamo@energiavirasto.fi



6 Relationship to the implementation of the Energy Efficiency Act in a large company¹³

The Finnish Energy Efficiency Act (1429/2014) obligates the large companies to carry out an energy audit in every four years. A company is deemed to meet the requirements for the mandatory energy audit, if the company has joined an Energy Efficiency Agreement and has introduced an Energy Efficiency System EES⁺. The EES⁺ does not need to be certified. In such a case, the Energy Authority supervises the implementation of the EES⁺ in the company separately.

Appendix to the Action Plan: Energy Efficiency System EES

¹³ A large company is specified as (Commission Recommendation 2003/361/EC) a company or group that

- employs more than 250 persons or
- has an annual turnover of over EUR 50 million and an annual balance sheet total of over EUR 43 million.

When considering the limit values specified above, the ownership of an individual company must also be taken into account, even if the company would not exceed the limit values <https://www.energiavirasto.fi/suurten-yritysten-pakolliset-katselmukset>.

Energy Efficiency System (EES)

4 December 2007, Version 1

**Appendix to the Action Plan for the Energy-Intensive Industry and the
Action Plan for Energy Production included in the Energy Efficiency Agreement in Industries**



This document sets out the minimum requirements of the Energy Efficiency System, designed for continuous improvement of energy efficiency of companies that have signed up to the Energy Efficiency Agreement in Industries, and made a commitment to implement the Action Plan for the Energy-Intensive Industry or the Action Plan for Energy Production. The text also contains descriptions of recommended measures complementing the system, marked in the text in *italics*.

The Energy Efficiency System EES may be integrated in the company's ISO 14001 system or other management system used by the company, or it may be applied as a separate system to suit the needs of the company.

The paragraph numbering of this text complies with the ISO 14001 standard (2nd edition, published 29.11.2004).

Energy Efficiency System As Tool For Continuous Improvement Of Energy Efficiency

The Energy Efficiency System EES helps companies create a systematic procedure in order to realise the principle of continuous improvement of energy efficiency, as well as to reduce energy consumption and costs.

Energy efficiency is a part of a company's production efficiency and competitiveness.

Energy management consists of:

- Recognition of the fundamental effects related to energy (costs, environment, dimensioning)
- Setting of measurable targets
- Definition of organisational responsibilities
- Definition and implementation of measures derived from the targets
- Monitoring methods for consumption and the measures taken
- Review of targets and deciding on further measures.

With respect to the company's operation, continuous improvement of energy efficiency requires:

- Knowledge and monitoring of own energy usage
- Understanding of own energy-saving potential
- Defining and implementation of energy-saving measures that are viable in technological and economic terms
- Consideration of energy efficiency in standard procedures, investments and procurement
- Knowledge of different energy supply options
- A good energy supply strategy and its implementation.

The Energy Efficiency System may be described with the help of a 5-stage circle (Fig. 1):

- Energy policy: expressing the company's willingness to commit to agreed energy efficiency targets. Energy issues may be integrated in the company management system, making a separate energy policy unnecessary
- Planning: charting of company energy usage, setting of targets and agreeing on actions and methods in order to achieve targets and goals in accordance with the (energy) policy
- Implementation and execution: execution of efficiency measures; organisation, training and briefing of personnel.
- Surveillance and remedial action: goal-directed monitoring of consumption, benchmarking, self-assessment of energy efficiency

Management review: evaluation of functionality of the system, realisation of set targets, and setting of new targets

Diagram adapted from ISO 14001

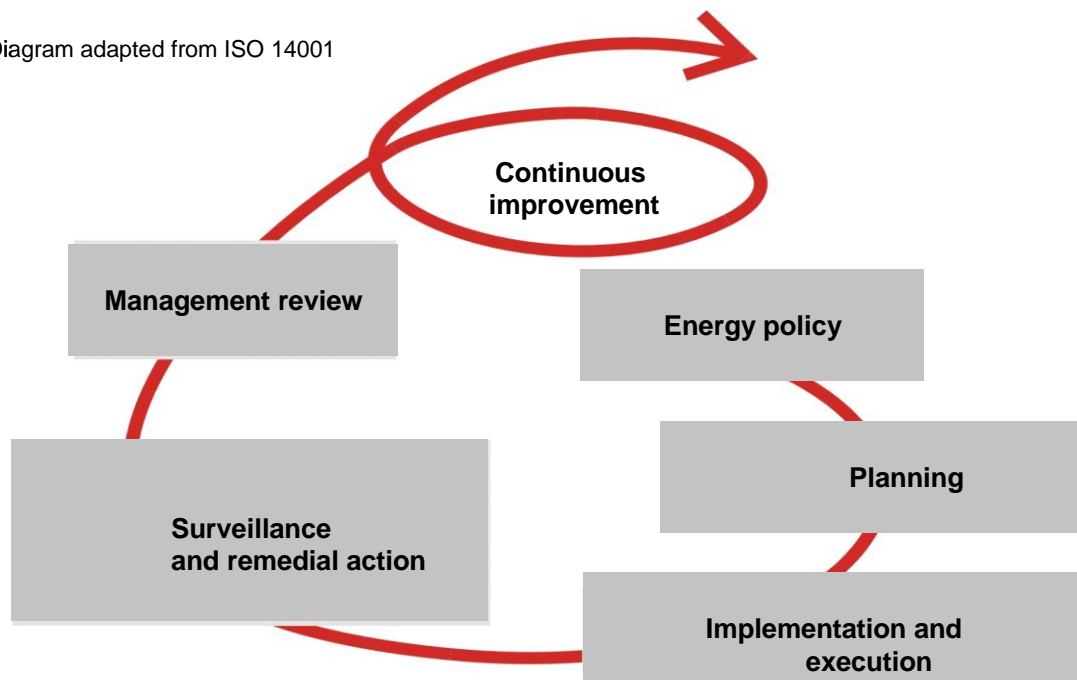


Figure 1. Application of the principle of continuous improvement in the Energy Efficiency System

3 Terms and definitions

The following terms and definitions are used in this document:

3.1 Deviation

Non-fulfilment of minimum requirements set out in this document.

3.2 Significant energy aspect

Activity related to energy production and consumption with a significant impact on a company's total energy consumption.

N.B.: an aspect related to energy production or consumption is significant also when it

- improves energy efficiency
- increases use of renewable energy sources
- increases integration of energy management with surrounding society.

3.3 Energy

Energy means electricity, heating and fuels.

3.4 Energy usage

Energy usage means itemised energy consumption.

3.5 Energy aspect

All factors that are significant in terms of energy consumption and production, e.g. technology, operation and conduct of the organisation.

3.6 Energy Efficiency System

Part of company management system, containing organisational structure, planning, responsibilities, procedures, processes and resources concerning energy issues, to develop, adopt, achieve targets, review and maintain e.g. company environmental policy in relation to energy issues or a separate energy policy drawn up by the company

3.7 **Goals and targets**

A goal is a general, often long-term target for improving energy efficiency and implementing energy policy.

A target is a detailed and, if possible, quantifiable performance requirement based on company energy policy, set in order to achieve goals and to continuously improve energy efficiency.

3.8 **Energy policy**

Statement of intent by company management to improve the level of energy efficiency. A separate energy policy is not necessary if the company's commitment to continuous improvement of energy efficiency is evident e.g. in the group environmental policy, values or other guiding principles.

3.9 **Preventive action**

An action to prevent a potential deviation or development of other undesirable situation.

3.10 **Remedial action**

An action to remove the cause of the deviation or other undesirable situation.

3.11 **Energy-saving plan**

A scheduled plan drawn up by the company on actions to implement, evaluate and monitor continuous improvement of energy saving and energy efficiency.

4.1 General

The company builds up and maintains the Energy Efficiency System in the manner set out in the following paragraphs. The company also defines the boundaries for its Energy Efficiency System.

Below, the minimum requirements are written in standard font and the *recommendations in italics*.

4.2 Energy policy

The company management defines the energy policy e.g. as part of an existing management system, or if this is not feasible, as a separate policy, maintains it and ensures that

- a) energy issues are included in company policy to the extent that is expedient taking into consideration the company operation, size and impacts
- b) the energy policy contains a commitment to continuous improvement of energy efficiency
- c) the company complies with legislation as well as commitments related to company energy production and usage
- d) company personnel are familiar with the company energy policy
- e) frameworks are created for monitoring energy usage and energy efficiency targets are defined.

Recommendation:

- *the energy policy is public.*

4.3 Planning

4.3.1 Analysis and identification of aspects related to energy production and usage

The company creates and maintains procedures to analyse energy production and usage, or employs audit and analysis guidelines in accordance with MEAE (The Ministry of Economic Affairs and Employment) directions, to

- produce information on energy consumption based on measurement or calculations
- identify the most important factors related to company energy production and usage

- specify the measures to be taken to improve energy efficiency during an agreed period
- identify the possibilities of improving energy efficiency in the long term.

The information is updated regularly.

4.3.2 **Statutory and other requirements**

The company creates a procedure to recognise the legislation related to energy efficiency, as well as other commitments and requirements.

4.3.3 **Goals and targets**

- a) The company draws up and maintains documented goals and detailed and scheduled energy efficiency targets, which as far as possible are measurable, and maintains an efficiency-improvement plan for energy usage and production, to be updated annually. When the targets are set up and updated, the following must be taken into account:
 - Statutory and other requirements
 - Considerations related to energy production and usage that are significant from the corporate point of view
 - Possibilities opened up by new energy-efficient technology
 - Economic, business and other operational considerations
 - Data from previous years and the measures taken to affect energy efficiency
- b) The company must ensure that the goals and targets support the formulated energy policy.

4.4 **Implementation of the system and action**

4.4.1 **Organisation and responsibility**

The senior management of the company specifies the personnel responsible for energy issues, their roles, duties, responsibilities and authority. This information is documented.

The company management creates the conditions for implementation and maintenance of the Energy Efficiency System, meaning that

- personnel must have sufficient training and resources to discharge their duties in an energy-efficient manner
- they have adequate technical and financial resources at their disposal.

4.4.2 **Training, awareness and competence**

- a) The company takes particular care of the know-how and competence of persons whose sphere of responsibility includes functions with a significant impact on the energy efficiency of the company
- b) The training includes
 - requirements of the Energy Efficiency System, to the extent they are related to the person's duties and sphere of influence
 - company energy policy and energy efficiency targets

4.4.3 **Communications**

The company specifies how energy issues are communicated internally and externally.

4.4.4 **Documentation of Energy Efficiency System**

Documentation of the Energy Efficiency System must include the essential parts of the system (policy, goals and targets, extent of Energy Efficiency System) and information on their interfaces with other documents (e.g. environmental management system, if energy issues are not included in it).

4.4.5 **Management of documentation**

- a) The procedures for management of documents and files are outlined in the company operational directions (the kind of information collected, where and how, how long, who is responsible, distribution)
- b) Documents originating externally are also specified and their management procedures described in the company operational directions
- c) Essential documents related to the System are stored in an appropriate and adequate manner and in a comprehensible and easily recoverable form
- d) Essential documents related to the Energy Efficiency System are reviewed at agreed intervals, updated when necessary, and approved.

4.4.6 **Direction of the activity**

- a) Energy efficiency is considered in decisions concerning investments and production development
- b) Significant factors related to energy consumption are recognised in purchasing and use of equipment and systems (targets related to energy consumption are set particularly for processes and equipment that impact on the company's total energy usage)
- c) Parties important in terms of energy efficiency (e.g. other companies providing services to the company) are informed about the company's energy efficiency targets and requirements.

4.4.7 **Preparedness and action in emergencies**

Security of energy supply or operation of plants under exceptional circumstances are not within the remit of this Energy Efficiency System.

4.5 **Surveillance and remedial action**

4.5.1 **Surveillance and measurement**

- a) The energy consumption of functions central in terms of energy production and usage are measured or calculated, analysed, documented and reported regularly. The results may be compared with e.g. reference data available within the sector or other information.
- b) Definition of principal measuring devices, to be regularly serviced and calibrated. Documentation of actions
- c) Appointment of persons responsible for the functions.

4.5.2 **Assessment of compliance with requirements**

The company must define a procedure to be used to assess compliance with the requirements of the Energy Efficiency Agreement, as well as the applicable statutory obligations and other commitments.

4.5.3 **Deviations, remedial and preventive measures**

The company must define a procedure to be used to assess deviations (policy, goals, agreed procedures and targets or statutory requirements), to implement remedial actions and to monitor their effectiveness:

- a) A person responsible for the purpose is appointed and given the authority to investigate deviations and to initiate remedial and preventive measures. All remedial or preventive measures must be appropriate in relation to the identified problem, and they must have an impact on energy usage.
- b) The changes are documented and disseminated in the manner specified by the company.

4.5.4 **Data management**

Data related to energy production, usage and maintenance of other aspects of the Energy Efficiency System are identified, stored at least for the duration of the agreement, and superfluous data removed.

Data to be maintained are, for example:

- a) Energy usage data per production line by energy form, such as electricity, heating and fuels.
- b) Data describing efficiency of energy usage, such as monitoring of normal consumptions or of other indicators specific to the sector
- c) Own energy production

It should be ensured that the files are appropriate and identifiable and that they can be linked to the correct function, product or service.

4.5.5 **Internal auditing**

At regular intervals, but at least once a year, the company organises internal audits of energy issues (or, if the system is integrated in another management system, energy issues should be reviewed at the same time). The purpose of internal audits is to assess the implementation of continuous improvement of energy efficiency and to provide information for company management on attainment of the goals and targets.

The company draws up an auditing schedule, defining

- a) extent, criteria and methods of the audits
- b) how often they are carried out
- c) persons responsible for the auditing
- d) content of the report and method of reporting to management and other parties.

The auditing assesses

- a) whether the Energy Efficiency System is appropriate for the management of energy issues, what updates are necessary
- b) whether the Energy Efficiency System is implemented and maintained in the agreed manner.

4.6 **Management review**

The management review focuses on the possible need to alter the energy policy, targets and other elements of the Energy Efficiency System, should there be need for such changes on the basis of the information obtained from the Energy Efficiency System audits, due to changed circumstances or commitment to continuous improvement.

In conjunction with the management review at least once a year

- a) an assessment is made regarding compliance with the requirements of the Energy Efficiency Agreement, as well as the applicable statutory obligations and other commitments.
- b) an assessment is made as to how the agreed principles and decisions have been implemented in practice, and ongoing (development) programmes are reviewed
- c) an assessment is made as to the appropriateness of the Energy Efficiency System and its results in relation to the targets set
- d) targets are set for the next period
- e) it is ensured that the necessary information is collected for evaluation of the Energy Efficiency System

The management reviews are documented.