Agreement of December 16th, 2016 on the energy companies' energy savings effort

between

the minister for energy, utilities and climate and
the network and distribution companies within the fields of electricity, natural gas, district heating and oil
as represented by

the Danish Energy Association

HMN GasNet, Danish Gas Distribution, NGF Nature Energy

Danish District Heating Association, the Association of Danish CHP Plants as well as

the Danish Oil Industry Association

This agreement is a follow-up to the political agreement of March 22nd, 2012 concerning the Danish energy policies 2012-2020. The energy policy agreement of March 22nd presupposes an increase in energy efficiency that minimises the energy waste and energy consumption of all sectors.

This agreement supersedes the agreement of November 13th, 2012 between the minister for climate, energy and buildings and the distribution companies within the fields of electricity, natural gas, district heating and oil as represented by the Danish Energy Association, HMN GasNet, Danish Gas Distribution, NGF Nature Energy, Danish District Heating Association, the Association of Danish CHP Plants as well as the Danish Oil Industry Association. Appendix 6 contains an overview of when the individual paragraphs of the agreement become effective.

This agreement, which implements the section in the energy policy agreement and PSO agreement of November 17th, 2016 concerning the energy savings commitment of the energy companies, establishes the framework and principles for the industries' and companies' realisation of energy savings. Should there be a need to change the principles of this agreement, it will be done through a renegotiation of the agreement. The frameworks for the companies' efforts are established in the current laws regarding the distribution of electricity, natural gas and heating as well as in the declaration on energy savings benefits in network and distribution companies.

No laws exist that commit the oil companies to participate in the realisation of energy savings and that allow for imposing energy savings commitments on the companies in the oil industry. The oil industry, however, wishes to contribute actively towards the future energy savings effort – within the framework of the industry's special preconditions. In accordance with the agreement to discontinue the PSO tax, the Danish

Energy Agency is in 2017 initiating talks with the oil industry regarding a further commitment from 2018. The future indexing of the oil companies' energy savings goals in regards to the Energy Savings Agreement's section 4.7 will be brought up for renewed discussion in the Technical Working Group in continuation of the concord that is reached with the minister for energy, utilities and climate about an adjustment of the oil companies' goals from 2018 and onwards.

On this background, the parties agree on the below framework for the companies' energy savings effort. The text in the agreement column applies for the entirety of the agreement period and cannot be changed during the agreement period unless all parties agree to do so. With regards to the text in the clarification column, the Technical Working Group can agree to carry out changes. Such changes can only become effective at the year-ends and must be announced at least 3 months in advance.

The signing of the deal by the Danish Energy Association, Danish District Heating Association/Association of Danish CHP Plants as well as the Danish Oil Industry Association is as a rule done on behalf of all network and distribution companies in the industry, but the individual companies can decide to withdraw from the agreement, cf. the conditions of the agreement. The Danish District Heating Association's signing is on the condition that companies making up at least 80% of the district heating plants join the agreement.

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Agreement	Clarification		
Overall framework This paragraph establishes the overall framework for the energy savings effort of the network and distribution companies.			
1.1 The network and distribution companies promote cost effective savings to the benefit of consumers, companies and society.	1.1.1 The network and distribution companies meet the regulations in section 1.1 by fulfilling – within the conditions and quality requirements of this agreement – their energy savings commitment at the lowest possible average expenses per saved kWh.		
1.2 The underlying basis is that the network and distribution companies' efforts should contribute and be essential to the realisation of increased energy savings, and that the effort should in particular be focused on the realisation of energy savings that would not have been otherwise realised at this time without the companies' efforts.	 1.2.1 The provision means that the companies should be involved in the realisation of the concrete projects, cf. section 7.1. The company's involvement should appear from the documentation, cf. paragraph 11. 1.2.2 The effort in relation to the provisions of this agreement support a focus on the realisation of energy savings that is not expected to be realised within 1-3 years without the companies' efforts. 1.2.3 In general, the goal is that the provisions of this agreement – regardless of the financial possibilities – should promote the application of the widest available technology. This applies both when determining the provisions for standard values and specific statement calculation. 		
1.3 The effort of the network and distribution companies should – directly or indirectly – result in benefits for the end users, making it easier and/or cheaper for end users to implement energy savings. The same goes for energy savings that are implemented at the network and distribution company level, for example in relation to piping optimisation, solar panels and heat pumps. The predominant part of the network and distribution companies' expenses in achieving these savings should as such either directly or indirectly go to the end users – or the network and distribution company if that is where the saving is achieved.	 1.3.1 It should appear from the documentation, cf. paragraph 11, which services the end users have received by a network or distribution company – either directly or through an operator. 1.3.2 The network or distribution company has only contributed to/been involved in the energy savings if the end user in one way or another benefits financially. This can, however, be indirectly and as such less apparent (for example consultancy). It is assumed that the majority of the network or distribution company's expenses, if any, go to the end user 		

in the form of subsidies, discounts or consultancy. If the end user is not granted financial or other benefits, the energy savings will not be eligible for filing by the company as it will be difficult to prove that the company's efforts have influenced the end user's implementation of an initiative. 1.3.3 If the savings are achieved within a network or distribution
company, similar requirements are in effect with regards to involvement, cf. section 7.2.6, and similar requirements for documentation of expenses and payback time.

2 Time frame and cancellation of the agreement

This paragraph establishes the time frame as well as the conditions for cancellation of the agreement for the involved parties as well as for the individual network and distribution companies.

- 2.1 This agreement revokes the goals, commitments and guidelines established in the agreement of November 13th, 2012 about the companies' future efforts.
- 2.2 This agreement establishes the allocation of energy savings goals between the parties of the agreement and the principles for the allocation of the energy savings goals for the individual network and distribution companies for the period of 2016-2020, cf. paragraph 4, as well as the concrete guidelines et cetera for the effort in the period from January 1st, 2017 to December 31st, 2020, cf. appendix 6.
- 2.2.1 Agreements between a network or distribution company and an end user that are entered into in the period from January 1st, 2016 to January 1st, 2017, cf. appendix 6, should be settled and documented in accordance with the guidelines in the agreement on the energy companies' energy savings effort of November 13th, 2012.
- 2.3 The agreement can be cancelled by one or more contracting parties with 1 year's notice as of the end of the calendar year.

If a contracting party chooses to cancel the agreement, the agreement will still be in effect for the remaining contracting parties.

The minister for energy, utilities and climate can cancel the agreement for 1 or more contracting parties or the agreement as a whole.

The cancelation should be communicated to the signing parties of the agreement in writing. 2.3.1 If the minister cancels the agreement for the electricity network and natural gas distribution companies – for example in connection with moving the commitments to the trading companies – it is not directly of any consequence to the district heating and oil companies. This presupposes, however, that there are subsequently identical rules for all parties in relation to realisation, statement calculation, documentation et cetera of energy savings.

- 2.4 A company that is encompassed by the agreement can withdraw from the agreement at the end of a calendar year by giving notice no later than the end of the preceding calendar year, cf. section 2.3 on cancellation notices.
 - Electricity network or district heating companies that fail to observe the commitments of the agreement can be dismissed by the collaborating body, cf. section 5.2, that they are a part of in order to be encompassed and regulated by the declaration on energy savings benefits in network and distribution companies. The dismissing of a company by the collaborating body should happen no later than May 1st for it to be in effect in the following year.

Further guidelines for the companies' commitments upon withdrawal or cancellation of the agreement appear from paragraph 15.

- 2.4.1 For companies withdrawing from the agreement, the Danish Energy Agency will implement similar commitments as warranted by the declaration on energy savings benefits in network and distribution companies, cf. section 5.4.
- 2.4.2 The withdrawing company should remain part of the collaborating body's work from when the notice of withdrawal is submitted to the collaborating organisation and until the withdrawal is in effect.

3	Energy savings	encompassed b	y the agreement
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- 3.1 Energy savings can be included in the final energy consumption (ultimate consumption of energy) for all sectors in Denmark as well as limited energy savings in network and in relation to energy production, cf. sections 3.8, 3.9 and 3.10.
 - Energy savings that are realised on the Faroe Islands and in Greenland cannot be included.
 - Energy savings in relation to the energy consumption for bunkering (international shipping) cannot be included as this consumption does not figure into the ultimate energy consumption in the Danish Energy Agency's energy statistics.
 - Energy savings in relation to domestic and international air traffic cannot be included.
 - Energy savings that are the result of a project that does not comply with current regulations and law, including the building code, cannot be included.
- 3.2 Installing a renewable energy facility which reduces the supply of energy needed for the concrete consumer can be included as a saving, but cf. section 3.4.

- 3.1.1 The effort is with an eye towards the final energy consumption (ultimate consumption) for all sectors as defined in the Danish Energy Agency's energy statistics, also including the transport area.
- 3.1.2 Fuel that is sold in Danish harbours to registered Danish fishing vessels are a part of the energy consumption in the production trades, and savings in relation to this can be included.
- 3.1.3 Energy savings in fuel that in Danish harbours is sold to ferries and other ships can be included as long as it is not in relation to international shipping (bunkering). Energy consumption for transportation purposes is what can be included.
- 3.1.4 Energy savings when installing a new oil-fired furnace for the heating of buildings with fossil oil in areas where it is possible to be connected to either district heating or natural gas utilities cannot be included.
- 3.2.1 Biomass supplied to end users is included as a final energy consumption.
- 3.2.2 When converting from for example oil or natural gas to biomass, energy savings can only be included if the new facility has a higher efficiency than the old one.
- 3.2.3 Utilising a company's own produced waste, for example waste wood and sludge, which reduces the supply of energy to the company and that so far has not been used for energy purposes at neither the company nor externally, can be included as an energy saving.
- 3.2.4 If a production company or a wastewater treatment plant installs an energy facility (for example an incineration or gasification facility) in order to utilise its own produced

	waste, an energy saving cannot be included if the facility allows for exporting electricity or gas out of the company, i.e. to the networks or to other companies. As such, energy savings from the facility can only be included if any electricity or gas production from the facility is utilised solely at the company.
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3.3	The utilisation of excess heat can be included as an energy saving if it reduces the company's net energy consumption as calculated in accordance with the principles of sections 10.5 and 3.9.	3.3.1	An energy saving can be included both if excess heat is utilised by the company itself, i.e. at the company premises, and by selling to an external partner, but cf. section 10.5 on the statement calculation methods and section 3.9 on heat pumps for district heating production.
3.4	 Energy savings in relation to the following cannot be included: Solar heating systems on buildings that are connected to district heating, unless the systems are part of the district heating plant's utilities strategy Solar cells Wind turbines, including household turbines Hydropower systems Farm biogas systems and collective biogas facilities 	3.4.1	Energy savings from solar cells cannot be included. This goes for all solar cell facilities, regardless of size and inclination. As such, the standard value for solar cells is zero. Energy savings from wind turbines cannot be included. This also applies even if the turbine is erected at an energy end user (at the end user's premises) and is connected to the end user's installation. Savings in connection with the installation and/or optimisation of farm bio gas facilities and collective bio gas facilities cannot be included.
3.5	The energy consumption of refineries as well as the energy consumption in the extraction of oil and natural gas is not part of the final energy consumption, and savings in connection with this consumption can as such not be included.	3.5.1	Energy savings in relation to the processing consumption at refineries (distillation columns et cetera) cannot be included. It is, however, possible to include savings in connection with ventilation, lighting, pumps, heating facilities as well as consumption in administration buildings to the extent that this consumption is settled via separate consumption gauges and as such is not internal own-consumption. Excess heat provided by refineries cannot be included.

- 3.6 The energy consumption of collective production facilities (district heating plants, power plants, CHP plants et cetera) is not part of the final energy consumption, and savings on this front can as such not be included. However, energy savings from installation of new solar panels and new heat pumps for district heating production can be included, cf. sections 3.8 and 3.9.
- 3.6.1 Energy savings in the following facilities, which are defined as collective production facilities, cannot be included:
 - Existing collective electricity and heat production facilities (power and heating plants et cetera) as well as existing collective waste incineration plants regardless of size.
 - Existing energy production facilities at end users (boilers, heat pumps, solar heat facilities, power planted heat facilities, flue gas coolers et cetera) from which heat is supplied to the public network (district heating et cetera) at a rate of more than 10 TJ per year or that has an installed electrical effect of at least 5 MW.
- 3.6.2 It is, however, only savings from existing facilities and from the actual energy production facilities (boilers, heat pumps, solar heat facilities, turbines, gas motors, flue gas cleaning et cetera) with associated equipment (motors, control equipment et cetera) that cannot be included. As such, it is possible to include savings in connection with ventilation, lighting, pumps, heating facilities as well as consumption in administration buildings to the extent that this consumption is settled via separate consumption gauges and as such is not internal own-consumption.
- 3.6.3 The utilisation of excess heat from facilities that prior to the energy savings project have been defined as a collective production facility cannot be included.
- 3.6.4 A list of the collective production facilities for which savings cannot be included is available at the Danish Energy Agency's website [link].

3.7	Energy savings achieved by reductions in loss through the transmission and distribution networks can be included even though it is not part of the final energy consumption.	3.7.1	Reduction of energy loss in the transmission and distribution networks, including reduction of loss in transformers, pumps, gauges, regulators et cetera, can be included. This is valid all the way from a production facility/gas treatment facility to a user.
3.8	Energy savings achieved by means of solar panels for district heating production that are approved no later than June 30 th , 2018 can be included.	3.8.1 3.8.2 3.8.3	Under the framework of this agreement, it is possible to include energy savings from new collective sun panels to the district heating supply that is approved in accordance with the provisions of the Heat Supply Act and projected no later than June 30 th , 2018 and deployed no later than June 30 th , 2019. The savings are reported in the year that the projects are realised and documented – and no later than June 30 th , 2019. The savings are established as the estimated annual energy production from the sun panel facility weighted with a prioritisation factor of 1 without any further factors. All parties can at most include a saving of 8,000 MWh from sun panel facilities at a district heating company.

3.9	As of 2017, energy savings in connection with the installation of new electrical or gas-powered heat pumps for district heating production can be included.	3.9.1	The energy saving is established as the annual heat production calculated based on the expected number of hours under full load deducted the energy consumption to the heat pump (including any consumption by pumps et cetera) multiplied with the relevant conversion factor(s), cf. appendix 2 on conversion factors. When calculating the energy saving, use the annual average hours under full load based on the first 10 years of the facility's lifespan with reference to the project proposal, which represents the basis for the heating plan approval after the project announcement. If the heat pump utilises excess heat from an end user, the saving is established in accordance with the regulations of section 10.5. An energy saving as a result of installing a heat pump for district heating production can only be included if the excess heat is not included as an energy saving at the company, cf. section 10.5.4.
3.10	The activities for which energy savings cannot be included appear from appendix 1.		
4	Savings goals		
4.1	The overall savings goal for the parties of the agreement totals 10.1 PJ per year in the period of 2016-2020.		
	The industries and the individual electricity network, natural gas distribution, district heating and oil companies upon the end of the agreement meet the energy savings goals that are established in paragraph 4, but cf. section 4.8.		

4.2 The savings goal for the electricity network, natural gas distribution and district heating companies respectively constitute 3.18% of the final adjusted energy consumption as established in the Danish Energy Agency's energy statistics plus 40% of the net loss in the electricity and district heating system, which is also established in the Danish Energy Agency's energy statistics. Add to this the natural gas distribution companies' goal of 0.07 PJ and the district heating companies' goal of 0.493 PJ.

The gas distribution companies' total savings goal is subsequently allocated between the companies based on distributed quantities.

The goal for the period of 2016-2017 is allocated based on the Danish Energy Agency's energy statistics from 2014 and appear from table 1 in section 4.2.1.

The allocation of the goal is regulated for the period of 2018-2019 based on the energy statistics for 2016 and likewise for 2020 based on the energy statistics for 2018.

The savings goal of the oil companies is regulated in accordance with section 4.7.

- 4.2.1 Electricity for transportation is included in the basis of calculation for the allocation of energy savings goals, whereas gas for transportation is not included.
- 4.2.2 Table 1: Allocation of the energy savings goal for the period of 2016-2017.

	PJ
Electricity network companies	3.62
District heating companies	4.10
HMN GasNet	1.29
Danish Gas Distribution	0.65
NGF Nature Energy	0.16
Oil companies	0.28
Total	10.1

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4.3	The individual electricity and district heating companies' energy savings goals are established by the collaborating bodies based on the following principles:	
	For the electricity network companies, the energy savings goal is allocated, cf. section 4.2, based on the companies' proportional share of settled amount of energy to end users. The companies' goal is established on an annual basis based on an average historical share of settled energy. For the district heating companies, the energy savings goal is allocated, cf. section 4.2, based on the companies' proportional share of heat supplied to the network.	
4.4	The individual network and distribution companies' excesses or shortfalls when it comes to energy savings at the end of 2015 will be passed on to this agreement period and as such be part of the company's total goal attainment.	
4.5	For electricity network, natural gas distribution, district heating distribution and oil companies, excesses or shortfalls when it comes to energy savings are established at the end of 2015 as the difference between the individual company's accumulated reported energy savings and accumulated energy savings goal, specified by the collaborating bodies for the period of 2006-2015.	
4.6	The oil companies' energy savings goals are allocated proportionally between the companies based on market shares in the heating oil market. The oil companies have in relation to their support of this and previous agreements established the coalition of the Oil Industry's Energy Savings Fund (<i>Oliebranchens Energisparepulje f.m.b.a</i>). This coalition has assumed all of the oil companies' commitments in relation to this agreement.	

4.7	The total energy savings goal of the oil companies, cf. section 4.2.1, will from now on be indexed in relation to the development in sales of heating oil. The basis for the savings goal in 2016, as stated in section 4.2.1, is sales of heating oil in 2014. This indexing means that the savings goal from 2018 onwards is regulated proportionally to the development of sales of heating oil compared to 2014. However, the goal will only be adjusted if the accumulated sales of heating oil has changed by more than plus/minus 5% compared to the sales in 2014.	
4.8	The savings goal for the individual electricity network, natural gas distribution, district heating distribution and oil companies is established in sections 4.2, 4.3 and 4.6. Excesses and shortfalls can be carried forward between the individual years of the agreement period.	
	As of the end of 2016, the below maximum shortfalls apply for the industries (electricity, natural gas and oil). From 2017 onwards, it applies to the contracting parties, i.e. electricity, district heating, oil and the individual gas companies.	
	Compared to the latest year's energy savings goal, shortfalls may as a maximum amount to:	
	As of the end of 2016: Max 35% As of the end of 2017: Max 30% As of the end of 2018: Max 15% As of the end of 2019: Max 10% As of the end of 2020: Max 5%	

5 Commitments and governance

 $This \ paragraph \ establishes \ the \ individual \ parties' \ roles \ and \ responsibilities \ in \ relation \ to \ implementing \ the \ energy \ savings \ commitments.$

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5.1	For the electricity network and district heating distribution companies, the savings goals stated in section 4.2 apply as a whole for all the companies in the industries that in accordance with the supply acts are encompassed by the commitment, which also includes companies that do not participate in the collaboration/the collaborating body, cf. section 5.2. The oil companies are not obligated by law but participate on an equal footing with the other industries in the agreement.	5.1.1 5.1.2 5.1.3	The legal basis for the network and distribution companies' energy savings commitments appear from the supply acts for electricity, natural gas and district heating. The oil companies participate in the arrangement on a voluntary basis. With a legal basis in the supply acts, more detailed rules for the energy savings effort will be established in the declaration on energy savings benefits in network and distribution companies in accordance with the principles of this agreement. The current legal basis and declaration on the energy savings benefits in network and distribution companies is available from the Danish Energy Agency's website [link].	
5.2	On an industry basis or jointly between several industries, a collaborating body is established to handle a range of tasks in relation to this agreement.	5.2.1	More detailed rules about participating in the collaborating body appear from the declaration on energy savings benefits in network and distribution companies.	
5.3	For the electricity and district heating companies that wish to be part of the industry agreement, the collaborating body will establish the individual companies' energy savings goals according to the principles that appear from sections 4.3 and 4.4 of this agreement.	5.3.1	The agreement on the energy companies' energy savings effort establishes in more detail the provisions and guidelines for the energy savings effort for the companies that are part of the agreement.	
		5.3.2	The total goal on an industry level appears from section 4.2 of this agreement.	
		5.3.3	The total energy savings goal is allocated on an industry level among all the companies in that industry according to the principles stated in section 4.2.	

5.4	For the electricity, natural gas and district heating companies that do not wish to participate in this agreement or that withdraw from it, possibly as a result of lack of adherence to the agreement, the Danish Energy Agency will establish binding goals as well as the terms for the individual company's energy savings effort in accordance with the declaration on energy savings benefits in network and distribution companies. Commitments for the individual company will be assigned based on the declaration on energy savings benefits in network and distribution companies. The industry's goal is reduced correspondingly to the commitments of the company or companies withdrawing from the agreement.	5.4.2 5.4.3	Companies that are not part of this agreement are encompassed by the declaration on energy savings benefits in network and distribution companies and are as such allocated an energy savings goal by the Danish Energy Agency. The declaration on energy savings benefits in network and distribution companies establishes the rules for the companies' fulfilment of the energy savings commitment. If the company does not comply with the Danish Energy Agency's established energy savings goal, the Danish Energy Agency can take steps in relation to the supply acts and the declaration on energy savings benefits in network and distribution companies.
5.5	In cases where a company withdraws from the agreement or does not wish to participate in the collaborating body within the agreement period, the collaborating body in question should inform the Danish Energy Agency about the withdrawing company's accumulated energy savings goal as allocated by the collaborating body, cf. sections 4.2 and 4.3, as well as accumulated realised and reported energy savings up until withdrawing from the agreement.		
5.6	In cases where a company is excluded from the agreement by another contracting party, the company's collaborating body should inform the Danish Energy Agency about the withdrawing company's accumulated energy savings goal as allocated by the collaborating body, cf. sections 4.2 and 4.3, as well as accumulated realised and reported energy savings up until withdrawing from the agreement.		

5.7	The collaborating bodies should on an annual basis report the realised energy savings to the Danish Energy Agency, cf. the reporting forms in appendix 5.		
5.8	A technical working group will be set up to handle questions, principles and situations in relation to this agreement on an ongoing basis. The group will consist of representatives from the contracting parties as well as the Danish Energy Agency, who will be acting as chair.	5.8.2	In relation to this agreement, a Technical Working Group will be established with representatives from the contracting parties. The main tasks of the working group are to contribute to the compliance to this agreement of the parties as well as clarifying and interpreting the regulations of this agreement on an ongoing basis. This in particular encompasses the follow tasks: Possibly clarifying the guidelines for the companies' involvement, cf. paragraph 7. Follow-up on the provisions for market orientation, transparency and information, cf. paragraph 8. Clarification of any vagueness in relation to the application of the prioritisation and conversion factors, cf. paragraph 9. Adjusting the statement calculation methods, cf. paragraph 10, on an ongoing basis, including updating the standard values, information et cetera. Follow-up on the requirements for documentation, reporting and quality assurance, including in particular follow-up on the annual spot checks, cf. paragraphs 11-13. Further changes in the clarification column as well as appendix, cf. the introduction to this agreement. The Technical Working Group is responsible for the work related to compiling the standard values. The companies attend to the practical work in relation to compiling the standard values and defray all expenses in connection to this. The Danish Energy Agency approves the standard values.

- The Technical Working Group assesses on an annual basis whether or not there is a basis for adjusting the various standard values, for example in light of technological developments.
- The Technical Working Group is included during the establishing of the framework and content of a potential evaluation of the arrangement.
- 5.8.3 The group consist of up to 2 representatives from each of the following organisations/groups:
 - Danish Energy Association
 - Natural gas companies
 - Danish District Heating Association and the Association of Danish CHP Plants
 - Danish Oil Industry Association

The Danish Energy Agency, which acts as chair and secretariat for the working group.

- 5.8.4 When it comes to the clarification of fundamental questions in the Technical Working Group, each member of the working group has a veto.
- 5.8.5 The working group will meet as needed and at least 3 times a year.
- 5.8.6 The Technical Working Group will compile a rules of procedure for the group's work. This should, among other things, describe the decision-making processes.

5.9	In this agreement, the term "network and distribution companies" will be used for all the companies that are encompassed by the agreement, i.e. electricity network companies, natural gas distribution companies, district heating companies and oil companies.	5.9.1	For the electricity network, natural gas distribution and district heating companies, there is a legal basis in the supply acts for establishing energy savings commitments, and these are encompassed by the declaration on energy savings benefits in network and distribution companies. The oil companies are solely committed by this agreement.
6	Freedom of method		
6.1	With an eye to the network and distribution companies achieving the agreed upon savings goal in accordance with section 1.1, the companies have freedom of method within the framework prescribed in existing law, the energy agreement of March 22 nd , 2012 (including the condition that companies' efforts should be focused on existing buildings and business) as well as this agreement.		
6.2	The network and distribution companies can implement savings outside of their own supply area and outside of their own type of energy. As part of ensuring a cost-effective effort, the network and distribution companies have the freedom to shape the concrete savings initiatives as agreed with the end users. All companies, regardless of ownership, have in accordance with the supply acts – which do not affect the oil industry – equal opportunities and conditions in relation to the realisation of the companies' energy savings commitments.	6.2.1	The network and distribution companies are responsible for all of the energy savings they report, including savings that have been achieved by operators or bought from other companies. The network and distribution companies can, as part of the freedom of method, enter into the agreements that they find appropriate for a cost-effective fulfilment of their commitments, and they can decline specific energy savings projects, business partners et cetera.
6.3	As regulated monopoly companies, there are a range of limitations as to which tasks the network and distribution companies are	6.3.1	The network and distribution companies should ensure and manage the following tasks themselves:

allowed to manage themselves in relation to the concrete realisation of energy savings outside of their own area and own type of energy. As such, the activities of the network and distribution companies in relation to the realisation of concrete energy savings activities, i.e. physical activities, should happen through companies that in their corporate structure are spun off from the network and distribution companies in accordance with the provisions of the supply acts.

The oil companies are not encompassed by section 6.3.

- Administration of this agreement
- Documentation of savings
- Filing reports of savings
- Quality assurance of savings, including quality control and audits
- 6.3.2 Within their own supply area and own type of energy

The network and distribution companies can themselves:

- Advise on energy savings
- Inform about energy savings
- Realise savings in their own distribution system or via gauges, including readings and surveillance equipment
- Establish solar panels and heat pumps under their own auspices
- Enter into agreements with operators
- Sign contracts directly with a consumer about financial involvement, including purchasing rights to report a saving as long as it is not in relation to a financing that includes a loan element

<u>The network and distribution companies cannot</u> themselves:

- Implement concrete realisation of energy savings at consumers, including installation work, technical energy efficiency improvements in equipment and processes et cetera (except in their own distribution system and via gauges)
- Participate in the selling of energy-efficient equipment
- Be in charge of the financing of energy savings initiatives For these tasks, an agreement should be entered into with an operator or end user.

6.3.3 Outside of own supply area or own type of energy

The network and distribution companies can themselves:

- Provide general information about the company's energy savings effort
- Enter into agreements with operators
- Sign contracts directly with a consumer about financial involvement, including purchasing rights to report a saving as long as it is not in relation to a financing that includes a loan element

The network and distribution companies are not allowed to implement activities beyond the above mentioned outside of their own supply area or outside their own type of energy. For activities beyond the above mentioned, agreements should be entered into with an operator or end user that can handle the activities.

In accordance with the supply acts, written material should 6.4.1 Agreements with operators, including consolidated companies, be compiled documenting how the prices and terms have should be entered into on market-appropriate terms, cf. the rules been determined. This documentation should be able to form of the supply acts, and in accordance with existing procurement the basis for an assessment of the market-appropriateness of laws, cf. the utilities directive, among others. the prices and terms. The documentation is to be presented to the Danish Energy Regulatory Authority if so requested. If In accordance with the principles of the supply acts, for an agreement is not deemed market-appropriate, the Danish agreements entered into with operators, there should be Energy Regulatory Authority can determine an estimated documentation showing that the agreements have been entered market-appropriate price. This estimated price will be the into on a market-appropriate basis, including how the pricing and basis for the financial regulation of the collective supply terms have been determined. company. Market-appropriateness can be ensured in several ways. The 6.4.2 provision does as such not entail a general requirement that all agreements are put out to tender. According to the remarks to the supply acts, the Danish Energy Regulatory Authority will perform its estimate within the framework of OECD's Guidelines for Transfer Pricing and SKAT's guideline Transfer Pricing – Dokumentationspligten. The Danish Energy Regulatory Authority should primarily concern itself with considerable agreements. There should be an unbroken agreement chain from the 6.5.1 In connection with network and distribution companies using network or distribution company, possibly via one or more operators in relation to the realisation of savings, there should be a operators, to the end user. Chronologically, the agreement written agreement between the company and the operator as well should start with the network or distribution company and as an unbroken agreement chain, cf. section 7.2, prior to an move via the operator(s) to the end user, meaning that an agreement about realisation of energy savings with the end user. agreement between a network or distribution company and an operator is established prior to agreements between the A network or distribution company's agreement with an operator operator and end users. can be general, i.e. without any specification of concrete initiatives or concrete end users for which the operator handles the savings commitment (a so-called framework agreement).

7 Requirements for the companies' involvement

7.1 The network and distribution companies should only report savings that the companies themselves or via agreements with operators through concrete activities have been involved in the realisation of, and the companies' efforts should be vital to the realisation of the energy savings. There should as such be a direct and unequivocal correlation between activity and savings.

In addition to this, the network and distribution companies can report energy savings that they have bought from other network and distribution companies, cf. section 13.4.

- There should be direct involvement in relation to a concrete, 7.1.1 defined energy saving. Direct involvement means that the network and distribution companies - or an operator with which the companies have a written agreement – should afford a concrete effort that contributes towards the realisation of an energy saving at a concrete end user. The companies' efforts should as such give the end users some benefits that contribute towards them achieving energy savings. These benefits can come in different forms and can, for example, consist of advice and support in relation to achieving savings that make it easier and cheaper for the end users and/or more direct financial involvement, such as subsidies or the purchasing of rights to report energy savings or the like that contributes towards reducing the costs for the end users in relation to the realisation of the savings.
- 7.1.2 The involvement cannot solely consist of and be document by an unspecific general framework agreement with an end user that does not include a concrete description of the concrete focus areas and of the activities that contribute towards realising the energy savings. A general agreement with an end user that allows for attributing all undefined energy savings that are achieved at a consumer without the company being involved in these is as such not sufficient for meeting the documentation requirement if it is not supplemented with specific agreements about concrete focus areas and/or projects.
- 7.1.3 A project is an agreement between an end user and a network or distribution company, possibly via an operator, on supporting the realisation of energy savings within concrete areas. A project can consist of one or more initiatives that are not necessarily technically coherent.

7.2 All projects/energy savings cases should include written documentation for the network or distribution company's involvement prior to initiation of the realisation of the saving. The network and distribution companies can as such not report savings that are achieved without the companies being involved before the realisation is initiated.

An agreement between a network or distribution company and an end user can potentially be established via one or more operator segments.

- 7.2.1 In relation to this provision, the initiation of the realisation is defined as happening when a binding agreement has been entered into about purchasing of equipment et cetera or a binding agreement on commencement of the project. The agreement about the network or distribution company's involvement and transference of the energy saving should as such be prior to this juncture.
- The agreement should be in writing and should feature a 7.2.2 description of the concrete initiative that is carried out with the end user, confirmation that the realisation has not been initiated already at the signing of the agreement as well as a description of the company's involvement in relation to the realisation. In this context, a written agreement means that there should be a dated confirmation from the end user stating that the energy saving is realised in collaboration with the network or distribution company and that the end user understands and accepts that the saving is transferred to the named network or distribution company or companies after it has been realised, ensuring that the saving cannot in good faith be transferred to other companies. This confirmation can for example be in the form of an email or a signature on an agreement document. The signature can be electronic, for example via NemID. The requirements are described in more detail in paragraph 11. A concrete agreement can encompass activities that are implemented over several years or on and off.
- 7.2.3 For savings of less than 20 MWh calculated by means of standard value, there should <u>also</u> exist a written agreement about transference of the energy saving. This can for example be accomplished by the end user's signature on an offer that clearly states the transference or by confirmation from the end user via email. It should also state how the company is involved in the realisation of the concrete saving.
- 7.2.4 In cases where an operator has entered into an agreement

with the network and distribution companies over the realisation of energy savings, the operator can enter into an agreement about involvement of the end user on behalf of the network or distribution company. It should be unequivocally clear from the agreement between the operator and end user which network or distribution company or companies the operator has an agreement with and to which the energy saving should as such be transferred, cf. paragraph 11 on documentation requirements. 7.2.5 The involvement should also be clear from the subsequent documentation of the energy saving having been realised, cf.
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cf. paragraph 11 on documentation requirements.
7.2.5 The involvement should also be clear from the subsequent documentation of the energy saving having been realised, cf. paragraph 11 on documentation requirements.
7.2.6 In regards to piping optimisation, solar panels and other internal projects at a committed network or distribution company, there should also prior to initiation of the
realisation exist documentation proving that the concrete project is part of the company's energy savings effort, cf. section 11.5.3 on documentation requirements.

- 7.3 The right to an energy saving from a concrete activity belongs to the end user until an agreement has been entered into with an operator or a network or distribution company concerning the transference of the energy saving to one network or distribution company.
 - The end user can only enter into one agreement with one network or distribution company concerning the transference of concrete savings. When establishing a prior agreement between an end user and an operator or network or distribution company as well as subsequent documentation of the realisation, it should appear from the agreement that the end user cannot transfer the saving to other network and distribution companies.
- 7.3.1 The energy saving belongs to the end user, i.e. the owner of the property/equipment et cetera where the concrete energy saving is realised.
- 7.3.2 In cases of owner-tenant relationships or leasing, the owner of the facility/equipment in question owns the energy saving. If a third party or operator defrays the investment in connection with the realisation of the energy saving, it can, however, be agreed that this individual holds the right to transference of the energy saving.
- 7.3.3 When entering into an agreement concerning the involvement of a network or distribution company, possibly through an operator, the end user transfers the right to report a saving to the concrete network or distribution company.
- 7.3.4 The end user can only transfer an energy saving to one network or distribution company, possibly through an operator. The energy saving cannot be transferred to an operator.
- 7.3.5 After this, the end user cannot pass on the same saving to other distribution or network companies.
- 7.3.6 The network and distribution companies will themselves determine the extent of this involvement, including the size of any subsidies, advice et cetera they want to provide the consumer with in order to acquire the right to report the energy savings from the concrete projects, but cf. section 1.3.

7.4	With regards to projects where the energy saving is calculated
	specifically, cf. paragraph 10, a network or distribution company
	cannot offer financial support if the simple payback period inclusive
	of subsidies is less than 1 year, but the companies can participate
	with consultancy et cetera and through that earn the right to
	report the energy saving.

- 7.4.1 The project's simple payback period is calculated as the ratio between the investment (deducted subsidies) and the value of the first year's energy saving.
- 7.4.2 For projects involving new build or new facilities, the investment that is used for calculating the payback period is the additional investment in relation to the building code/the standard of the day (deducted subsidies).
- 7.4.3 Investments should be documented with invoices or a financial report with auditor's certificate. The project owner's energy prices should be documented with, for example, invoices adjusted for reimbursement of taxes, VAT et cetera.

8	Market orientation, transparency and information						
8.1	The network and distribution companies have an obligation to achieve the energy savings goals established in this agreement and have freedom of method to engineer their efforts in order to realise the savings as cheaply as possible and in accordance with section 1.1.						
8.2	The energy savings effort should be market oriented such that all operators with competitive offers have an opportunity to contribute directly or indirectly to the realisation of energy savings. All agreements with operators et cetera should be made on market-appropriate terms, cf. section 6.4. The fundamental basis is that there should be equal opportunity for all operators and that the network and distribution companies cannot discriminate against particular companies.	8.2.1 8.2.2 8.2.3	With regards to making it possible for operators to sign contracts on non-discriminatory terms, the standard contracts can be used when entering into agreements between network and distribution companies and operators. These contracts are to ensure that the network and distribution companies receive a given delivery and that the operators live up to the requirements of the agreement, including requirements for statement calculations, documentation and quality assurance. The standard contracts are available from the Danish Energy Agency's website [link]. Agreements between a network or distribution company and an operator should meet the minimum requirements stated in paragraph 11 on documentation requirements.				

- 8.3 The Danish Energy Agency handles the guiding and general information about the arrangement and its utilisation aimed at both end users (households and businesses) and operators that want to collaborate with the energy companies.
- 8.3.1 The Danish Energy Agency's information, which is communicated via, i.a., www.ens.dk and/or www.sparenergi.dk, encompasses:
 - a) General information about the arrangement in the form of the companies' involvement, the purpose of the arrangement, regulations and guidelines, questions and answers, news service et cetera.
 - b) General information aimed at the end users. This information will be focused on helping the end user in utilising the arrangement, including what the end user should be particularly aware of and ask questions about in the dialogue with the network and distribution companies and/or operators, a step by step "here's how it's done" as well as information that answers the most frequently asked questions. These will be relevant and specific but still company-independent topics.
 - c) General information for operators that would like to collaborate with energy companies.
 - d) An overview of the committed network and distribution companies with a link to their websites.
 The collaborating bodies will deliver the overviews to the Danish Energy Agency once a year in connection with the reporting of energy savings.
 - e) Ongoing updating on the status of the energy savings effort, including status minutes on the energy savings effort and benchmarking of the companies' expenses.

8.4	 The network and distribution companies should provide specific information about the individual network and distribution company's energy savings effort with an eye to making end users (households and businesses) aware of the companies' energy savings efforts and giving independent operators an overview of the companies' efforts and opportunities for establishing contact with the network and distribution companies. This can partly be done on energisparesiden.dk, cf. section 8.5, partly on the companies' own websites, cf. section 8.6. 		
8.5	www.energisparesiden.dk, which the companies are to operate together, should provide the compiled overview aimed at both end users and current and potential operators that wish to establish contact with the companies.	8.5.1 a) b)	www.energisparesiden.dk should as a minimum offer the following information: Introduction to the network and distribution companies' energy savings effort and approach to achieving savings, including general information about how the end users can use the network and distribution companies' energy savings effort. Information for the end users about where they can find information about the network and distribution companies' activities, including an overview of the operators they have entered into agreements with. This can be accomplished through links to the individual network and distribution companies' websites, cf. 8.6. Information that makes it easier for potential operators to establish contact with relevant network and distribution companies. The relevant requirements imposed on the operators should also appear from this information. Contact information for the individual companies and links to the companies' websites.

8.6	Furthermore, the individual network or distribution company should on its own website inform about its own effort.	8.6.1	 The companies' websites should as a minimum feature: A short description of the company's energy savings effort and approach to the task. Information about the network and distribution companies' energy savings activities aimed at end users
			 (in the form of subsidies, consultancy et cetera) and a description of any special priority areas that the company has. A list of the operators that the company is collaborating with – possibly with contact information and links to their websites. An overview of the company's hitherto energy savings goals and reported energy savings as distributed across sectors and activities, cf. the information in the reporting forms in appendix 5.
		8.6.2	The companies can provide this information directly on their own websites or by redirection to a relevant operator where the above is available.
8.7	With regards to transparency in the network and distribution companies' energy savings efforts, the Danish Energy Agency discloses each year on www.ens.dk and/or www.sparenergi.dk, cf. section 8.3, the individual network and distribution companies' expenses for achieving savings during the year in question, which is compiled by the Danish Energy Regulatory Authority, cf. section 14.7.	8.7.1	The electricity network, natural gas distribution and district heating companies each report on an annual basis the expenses they have had in implementing the energy savings effort to the Danish Energy Regulatory Authority, cf. paragraph 14, who will determine the concrete guidelines for this reporting. Based on the companies' reporting of expenses, the Danish Energy Regulatory Authority will compile and release an overview of the individual network and distribution companies' expenses in fulfilling their energy savings commitments. The expenses are partly calculated as the total cost, partly as a key figure that shows the expenses per reported kWh.

9	Prioritisation and conversion factors						
9.1	In connection with the implementation of concrete energy savings, the effect is established based on the savings in the first year.						
9.2	With regards to steering the effort towards savings that have a considerable longevity, contribute towards reducing gross energy consumption, and contribute towards reducing CO2 emissions – particularly in areas not encompassed by quotas – simple prioritisation and conversion factors are used when calculating the savings.						
9.3	The prioritisation factors are used when weighing the first year's savings in relation to the longevity of the savings. The Technical Working Group determines the specific principles for choosing which initiatives should be multiplied by a prioritisation factor. The principles and provisions for using the prioritisation factors appear from the clarification.	9.3.1	9.3.1 The prioritisation factors are established based on the following principles:				
			Type of energy	Longevit	y/Prioritisatio	on factor	
				Less than 4 years	4 to 15 years	More than 15 years	
			District heating	0.5	1.0	1.5	
			Electricity and individual biomass	0.5	1.0	1.0	
			Fuel with imposed quotas (oil, natural gas, coal)	0.5	1.0	1.0	
			Fuel with no imposed quotas (oil, natural gas, coal)	0.5	1.0	1.5	
		9.3.2	Table 1 of appendix 2	indicates the c	concrete uti	lisation of	

prioritisation factors of energy savings in final consumption. The table is exhaustive, and for all initiatives beyond those indicated in table 1 of appendix 2, a prioritisation factor of 1.0 should be used. 9.3.3 The Technical Working Group can revise table 1 of appendix 2 based on the principles of longevity et cetera. Any changes apply for a new calendar year (i.e. from January 1 st) and are announced 3 months before they become effective. The current table 1 is available from the Danish Energy Agency's website [link]. 9.3.4 The prioritisation factors are not included in the standard values, but it appears from the relevant standard values where a prioritisation factor other than 1.0 should be used. 9.3.5 The prioritisation factor is used by multiplying the factor on the final calculated energy saving. 9.3.6 For integrated projects that include different types of energies and/or sub-projects with different longevities, the savings should be calculated for each type of energy (for example electricity and natural gas). It should appear from the documentation of the calculated energy saving how large
the documentation of the calculated energy saving how large a percentage of the energy saving uses a prioritisation factor of 0.5, 1 and 1.5 respectively, cf. appendix 2.

9.4	Conversion factors are used when calculating the energy saving when converting from one type of energy to another. The conversion factors appear from appendix 2.	9.4.1 9.4.2 9.4.3 9.4.4	When converting from one type of energy to another, the conversion factors that appear from table 2 of appendix 2 should be used. The conversion factors are used by multiplying the factors that appear on the table for the before and after consumption of energy respectively. The conversion factors have been included in the relevant standard values. With regards to calculating savings where both conversion factors and prioritisation factors should be used, the conversion factors should be used first. After that, the prioritisation factor should be used.
9.5	The companies' goal attainment is established after being weighed by the prioritisation and conversion factors.		

10 5	Statement calculation methods		
10.1	The savings are either calculated by using standard values or by a specific calculation of the saving that follows from the activity.		
10.2	The energy saving for reporting should be calculated in accordance with the regulations that are in effect at the time of entering into a binding agreement with the end user about the network or distribution company's participation in the realisation of a concrete project, cf. section 7.2.	10.2.1	If, for example, the standard values are changed during the implementation of the project, the standard value(s) that was/were in effect at the time of entering into the agreement with the end user should be used.
10.3	Standard value: Calculating the statement based on standard values is used for smaller, standardised activities. Savings of this type will typically be found in housing. To the extent that a standard value exists for a given saving, this standard value must be used. If the standard value is zero, no energy saving can be included within that specific area, and no specific statement calculation method can be used.	10.3.1	When calculating the statement based on standard values, the values from the standard values catalogue for energy savings should be used. The standard values catalogue is available from the Danish Energy Agency's website [link]. To the extent that a given saving falls within the scope of application of a standard value, this standard value should be used when calculating the saving, cf. the description of the scope of application in the standard values catalogue for the
	The catalogue of standard values is revised once a year with an eye to reflecting the technological development. Any changes become effective as of January 1^{st} and are announced no later than October 1^{st} of the preceding year. The changes only affect future efforts.	10.3.3	concrete standard value. In order for a standard value to be used, the general prerequisites and limitations for the usage as described in the standard values catalogue should be fulfilled. It should be ensured that both the before situation and the after situation are in accordance with the prerequisites for the standard value, and this should be documented, cf. section 11.8.1.
		10.3.4	Calculating the energy saving is done by means of a simple multiplication of the standard value with the number of units relevant to the concrete project – for example the number of insulated square metres. The current units for the initiative should be used. Rules of thumb, average values or values from handbooks cannot be used when establishing the

	number of units.
10.3.5	For the before situation, the specific conditions for the
	individual energy saving initiatives and facilities should be
	used when calculating the statement. Average values across
	several land registers or key figures for typical before
	situations cannot be used.
10.3.6	If there is indicated a prioritisation factor for the saving in the
	standard values catalogue, the indicated prioritisation factor
	should be used on the calculated saving.
	<u> </u>
10.3.7	The conversion factors that appear from appendix 2 have
	been included in the standard values.
10.3.8	If several different standard values are used within the same
	project, the total energy saving is found by adding up the
	energy savings calculated for each individual standard value.
	There should be no compensation for overlaps.
	There should be no compensation for overlaps.

10.4	Specific statement calculation is used for areas that have no
	standard value. These will typically be larger or integrated projects.
	If specific statement calculation is used for parts of a
	comprehensive project, the entire project should be calculated
	specifically, including the effect of initiatives for which standard
	values exist.

- 10.4.1 Specific statement calculation is used for specific initiatives or comprehensive projects for which no standard value has been specified.
- 10.4.2 If specific statement calculation is to be used for parts of a project, the entire project should be calculated specifically, including the effect of initiatives for which standard values exist. If the standard value has been specified as being zero, the initiative cannot be included, and no specific statement calculation may be done for the initiative.
- 10.4.3 The energy saving is generally calculated as the net difference between the energy consumption before and after the implementation of the energy savings initiative and is determined as the first year's saving.
- 10.4.4 The energy saving should be considered in relation to the before consumption and cannot before using conversion and prioritisation factors be larger than the before consumption. In cases of increase in production volume, however, the provisions of section 10.6 apply.
- 10.4.5 A specific statement calculation should apart from the exceptions mentioned in sections 10.5-10.10 reflect the end user's actual annual energy consumption in a normal operational situation, that is, based on the consumption in previous years, and should be conducted for a representative and comparable period. The specific statement calculation should as a minimum include:
 - A statement of the energy consumption before the implementation of the initiative the reference
 - A statement of the energy consumption after implementation of the initiative. The after situation should be adjusted for any changes in working times, production volume, production make-up, degree days et cetera as well as
 - A statement of the initiative's effect as expressed by the overall energy saving in the initiative's first operational

year after implementation.

- 10.4.6 Calculating the energy consumption before and after implementation of the energy saving/project, and as such the initiative's effect, should be based on concrete measurements, savings on the main gauge, invoices from energy companies and/or technical calculations.
- 10.4.7 The same method (for example measurements or calculations) should be used for calculating the energy consumption in the before and after situations. This can, however, be deviated from if there is a substantial reason for doing so. The documentation should account for this in writing and also account for the stated energy saving being reasonable.
- 10.4.8 If measurements are used, the measurement period should be long enough to be representative of a year's consumption. If measurements are conducted with an eye to establishing the efficiency, this should be compared to the year's consumption of fuel and the annual energy/heating needs. All measurements should be supported by a concrete written assessment of the measurement's validity. This assessment should be part of the documentation.
- 10.4.9 If key figures are used in connection with the statement calculation of an energy saving, documentation should exist for these, for example in approved and relevant standards. It should appear from the documentation that the prerequisites that underlie the specific key figure also apply to the concrete energy savings initiative. It should also appear from the documentation that utilising the key figure produces a reasonable result compared to the relevant energy consumption of the before situation.
- 10.4.10 If reductions of the production volume and production makeup occur, adjustments should be made to take this into account.
- 10.4.11 Energy savings achieved by reducing heat or electricity

consumption solely by lowering room temperature, degree of illumination (lux) or amount of ventilation cannot be included as an energy saving. This applies for cases where only a manual lowering of the room temperature, degree of illumination or amount of ventilation is implemented. For cases where a concrete step is taken based on an investment – for example the installation of extra equipment or the introduction of energy management – the energy saving can be included.

- 10.4.12 If the energy savings initiative encompasses savings within several types of energy, the reference and savings should be calculated for each type of energy.
- 10.4.13 In cases of integrated projects that cover several focus areas, such as, for example, reduction of consumption (insulation et cetera) and conversion of the utilities, any overlaps between the effect of the different focus areas should be taken into account.
- 10.4.14 All information in the statement of energy consumption and energy savings should be documented with reference to the utilised sources, allowing for retrieving of data.
- 10.4.15 The specific statement's degree of detail should be adapted to suit the concrete project's size and complexity. As stated above, there is no general requirement for the measurement of consumption before and after.
- 10.4.16 For specific calculations, the conversion and prioritisation factors are used, cf. appendix 2.
- 10.4.17 With regards to a specific statement calculation, energy labelling of a building, a BetterHousing (*BedreBolig*) report or an energy inspection report can only be used as a basis if the efficiency statement of such lives up to the requirements contained in this agreement.
- 10.4.18 For a specific calculation of the energy savings resulting from the energy companies' energy savings efforts, the heating values found in the Danish Energy Agency's annual energy

statistics should be used. These are the lower heating values.
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10.5 Specific statement calculation when utilising excess heat: When calculating the energy saving in relation to the utilisation of excess heat, there is a distinction between internal utilisation of excess heat, delivering excess heat out of the company – which can be exchanged to the district heating system directly – and delivering excess heat to a heat pump that is established outside of the company by a third party, for example a district heating company.

If the company, as part of delivering the heat, establishes a heat pump in order to raise the temperature of the delivered heat, the electricity consumption for the heat pump facility should be deducted after being multiplied by a conversion factor.

If the excess heat is delivered to a heat pump that is owned by a third party, for example a district heating company, it should be decided whether the energy saving should be included for the company or for the owner of the heat pump that receives the excess heat, ensuring that no double counting occurs.

10.5.1 Internal utilisation of excess heat

When utilising excess heat internally, the energy saving is calculated as a reduction of the company's net energy consumption as a result of utilising the excess heat. If in connection with the utilisation of excess heat there is an increase in consumption for pumps, heat pumps and the like, this should be included when calculating the net saving.

10.5.2 Excess heat delivered directly to the district heating network

If a company delivers excess heat with a high enough temperature for exchanging it directly to the district heating system, the energy saving belongs to the company delivering the excess heat. The energy saving should be calculated as the energy contents of the delivered amount of heat deducted any increase in electricity. If the company establishes a heat pump in order to raise the temperature of the excess heat, the energy consumption for the heat pump facility et cetera should be multiplied by the relevant conversion factor(s), cf. appendix 2.

The delivery of excess heat out of the company is calculated based on the difference between the inlet and outlet temperatures and the energy potential derived from that. This should be done in consideration of the piping loss for the *entire* stretch of piping between the company and delivery to the third party, for example the district heating network (both inlet and outlet). The temperature difference between the inlet and outlet is as such established based on the set of temperatures *at the point of billing*.

10.5.3 Excess heat delivered to a heat pump at a third party If the excess heat is delivered to a heat pump that is not owned by the company but by a third party, for example a district heating company, one of two options should be chosen:

a. The energy saving belongs to the owner of the heat

pump: In this case, no energy saving can be included for the company delivering the excess heat. The energy saving is the annual heat production from the heat pump calculated based on the expected number of full load hours deducted the energy consumption for the heat pump (including any consumption for pumps et cetera) multiplied by the relevant conversion factor(s), cf. appendix 2 on conversion factors. When calculating the energy saving, use the average annual number of full load hours based on the first 10 years of the facility's service life in relation to the project proposal, which constitutes the basis for the heat plan approval after the project announcement. b. *The energy saving belongs to the company:* The company and the recipient of the heat/the owner of the heat pump can agree on the energy saving belonging to the company. If this is the case, the energy saving is calculated in a similar manner as when the energy saving belongs to the owner of the heat pump, cf. section 10.5.3.a, and if the company itself owns a heat pump, cf. section 10.5.2.

10.6 Specific statement calculation when there is an increase in production volume: If in connection with the implementation of an energy savings initiative there is an increase in production capacity and volume in the concrete facility or the unit that is being made more energy efficient, this should be taken into account when the initiative's effect is being calculated.

In special areas where the technological development of components and solutions will, all things being equal, result in an expansion of capacity, increase in production and streamlining, no energy saving that results from the increase in production volume can be included.

- 10.6.1 For the part of the future production volume that corresponds to the production volume of the before situation, the saving is calculated as the difference between the energy consumption when using the original facility/equipment and the energy consumption when using the new facility/equipment.
- 10.6.2 The production volume should usually be calculated as the average over a representative period, for example the most recent year.
- 10.6.3 For the production volume that in the after situation is in excess of the production volume of the before situation, the saving is calculated in accordance with the provisions for new facilities, that is, a saving can only be included if the new facility's/equipment's energy efficiency exceeds the "standard of the day" for the new facility. The documentation should describe how the "standard of the day" is determined. The documentation should also describe the prerequisites for the increase in production volume.
- 10.6.4 The Technical Working Group will compile a guide on the principles for calculating energy savings in relation to an increase in production volume and/or new facilities as well as for determining the standard of the day.
- 10.6.5 The areas/technologies for which energy savings that result from an increase in production volume are not included appear from appendix 3, which is updated on an annual basis by the Technical Working Group. The current list in appendix 3 is available from the Danish Energy Agency's website [link].

The principle for designating an area or technology as being covered by appendix 3 is one or both of the following elements:

 Technological development does not directly enable a change to similar component/solution but will, all things being equal, increase the production per energy unit (for

	 example lumen, bits et cetera) and as such yield a growth in production volume. The development of the component's/solution's energy efficiency per produced unit is not dependent on the energy consumption of the component/solution (for example more horsepower, RAM et cetera of a component that increases the energy efficiency even though the energy consumption of the component/solution is, all in all, not reduced).
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- 10.7 Specific statement calculation in relation to new facility: In relation to establishing new buildings and new facilities, including brand new production locations, new production lines et cetera, an energy saving can only be included if the company's involvement means that solutions are chosen that are more energy efficient than the ones usually used in Denmark without a special energy savings effort.
- 10.7.1 The saving is calculated as the difference between the calculated energy consumption of the new facilities/equipment/buildings and the calculated energy consumption for the "standard of the day". The documentation should describe how the "standard of the day" has been determined.
- 10.7.2 When calculating the energy consumption after the initiative has been implemented, use either concrete measurements of the energy consumption in the first operational year after implementation or the expected energy consumption in the first operational year based on technical data from suppliers, independent experts or the like. All information in the energy consumption statement should be documented with references to the used sources, making it possible to retrieve the data.
- 10.7.3 With regards to establishing new buildings, an energy saving can only be included if the company's involvement means that the new building has a lower calculated energy consumption than the current minimum requirements of the Building Code or municipal minimum requirements determined in the district plan. The saving is calculated as the difference between the current energy framework and the energy framework calculated for the project. The calculation can only include the utilities solutions that can be added under the terms of this agreement, cf. appendix 1.

10.8	Specific statement calculation when consolidating production
	locations: An energy saving that results from the closure of an
	energy-consuming facility or the cessation of an energy-consuming
	activity can on its own not be included under the terms of this
	arrangement.

- 10.8.1 When consolidating production locations/units, an energy saving can only be included to the extent that there is at the same time implemented initiatives for energy efficiency in the company/unit to where the production is moved in addition to the actual change in production. The saving is calculated in accordance with the provisions for specific statement calculation when there is an increase in production volume. An energy saving from the company/unit from where the production is moved or that is closed cannot be included.
- 10.9 Specific statement calculation for energy optimisation of the district heating network: To the extent that the energy savings commitment plays a part in increasing the energy optimisation of the district heating pipe network, an energy company can include an energy saving in accordance with the guidelines described in section 10.9.1. The energy optimisation can encompass the optimisation/improvement of network and pipes, optimisation of pumps, valves and other equipment as well as the optimisation of pressure and temperature.
- 10.9.1 With regards to the calculation of energy savings in the pipe network, there is a distinction between the following two alternatives when it comes to the pipes:

Alternative 1. Technically worn out: When renovating the pipe network et cetera because the pipe network is "technically worn out" or other reasons for renovation or replacement, a saving can be included if a solution is chosen that is better than the "standard of the day" for new networks. The standard of the day is for district heating pipes defined in a document available from the websites of the Danish District Heating Association and the Danish Energy Agency [link].

When assessing whether or not a network is technically worn out, heat loss and the full range of parameters for what can be aged in a pipe system – in regards to mediapipes, insulation and casing pipes alike – should be assessed, also including installed joints systems and laying conditions. Pipe networks with pipes older than 40 years are always considered technically worn out, and the calculation should as such be done in accordance with this method (Alternative

1).

The documentation for projects calculated according to Alternative 1 should include information about physical placement, pipe lengths, pipe dimensions, and should describe how the chosen solution deviates from and is better than the standard of the day.

Alternative 2. Not technically worn out: When energy optimising a pipe network that should be expected to last for several more years without any extraordinary expenses for maintenance, network loss et cetera — that is, the network is not technically worn out — the full saving can be included in relation to the optimisation. The saving should be calculated based on the existing pipe's insulation capability upon deployment and data for the new network.

Pipe networks with pipes older than 40 years are always considered technically worn out, and the savings calculation should as such be done in accordance with Alternative 1.

The documentation for projects calculated in accordance with Alternative 2 should include a description of the "before" situation, including physical placement, pipe lengths, pipe dimensions, insulation capability upon deployment and an assessment of whether or not the network is technically worn out as well as of the "after" situation.

- 10.9.2 The reasons for choosing Alternative 1 or Alternative 2 should appear from the documentation. The documentation should also describe how the energy savings effort has contributed to the project's realisation.
- 10.9.3 The savings from a project should both in case of Alternative 1 and Alternative 2 be determined by calculation. No measured data can be used. The savings are

 10.10 Specific statement calculation for maintenance and broken down facilities: Savings achieved by ordinary maintenance cannot be included. With regards to ongoing maintenance of existing facilities and equipment, a saving can only be included if the maintenance results in an improvement of the facility's energy efficiency beyond the level that is to be expected from ordinary maintenance. An energy saving that results from replacing broken down facilities can be included under the terms of this arrangement if the energy saving is calculated in accordance with the principles for broken down facilities as described in section 10.10.2. 	determined per project. This means that an overall annual statement that shows the total energy savings achieved by work on the pipe network cannot be approved as an energy saving under the terms of this agreement. 10.10.1 A list of ordinary maintenance that cannot be included under the terms of this arrangement appears from appendix 4. 10.10.2 The Technical Working Group establishes the principles for when a facility is broken down. The underlying basis is that a facility is considered broken down if the total expenses for repairing the facility are in excess of 25% of the total expenses for a new facility. The note on these principles is available from the Danish Energy Agency's website [link].
10.11 Standard solutions: The Technical Working Group can compile standard solutions and decide that they should be used for a specific statement calculation in relation to the solution/technology in question.	 10.11.1 The Technical Working Group approves standard solutions that must be used. 10.11.2 In addition to this, the Technical Working Group compiles an overview of standard solutions that may be used. 10.11.3 The standard solutions are available from the Danish Energy Agency's website [link].

11	Documentation requirements for realised energy savings		
11.1	The network and distribution companies are responsible for there being unequivocal and full documentation for all realised energy savings that are reported as part of the companies' goal attainment. The documentation should be comprehensible and understandable to a third party. It should include sufficient data for verifying the calculations.	11.1.1	The provisions for documentation should be fulfilled for all types of activities that result in the reporting of energy savings. In collaboration with the Technical Working Group, the Danish Energy Agency compiles guiding standard templates for the documentation requirements for energy savings for the following types of energy savings cases:
			 Cases in which the network or distribution company has used an operator (standard value and specific statement calculation), cf. section 11.5.1
			 Cases in which the network or distribution company is in direct contact with an end user, cf. section 11.5.2 Cases in which the company realises savings under its own auspices, cf. section 11.5.3
			The standard templates will contain all the elements that should as a minimum be part of the documentation.
		11.1.3	An operator or a network or distribution company can, however, at any time enter into an agreement about other similar forms of documentation, including additional requirements, as long as the minimum requirements, cf. the templates, are met.
11.2	If no comprehensive documentation material exists for a concrete energy savings case or the documentation does not meet the minimum requirements, the saving cannot be reported. An energy saving can as such not be reported before it is realised and documented.		

11.3	The documentation should be in writing (possibly electronic) and should be available for 5 years following reporting of the energy savings case. If documentation for energy savings that have already been reported is no longer available, for example because the documentation was held by an operator that has gone bankrupt, the energy saving should be adjusted (deducted) in the next reporting.	11.3.1 11.3.2 11.3.3	The documentation for realised energy savings should be in writing (possibly electronic) and should be kept by the network or distribution company for 5 years. If the network or distribution company has entered into an agreement with an operator over the handling of the energy savings commitment, a concrete agreement on the handling and storing of the documentation should exist with the operator. The documentation should at any time be available to the network or distribution company that has reported the concrete saving and for the company's quality assurance, quality control and audits as well as for impartial inspection and spot checking.
11.4	Network and distribution companies that use operators for the implementation of energy savings cases should be able to document the agreement chain from the network or distribution company to the end users in the concrete energy savings cases.	11.4.1	If the network or distribution company uses operators for the implementation of energy savings cases, there should exist a written agreement between the network or distribution company and the operator prior to an agreement being entered into between the operator and an end user. The agreement between the network or distribution company and the operator can be general, for example in the form of a framework agreement, or it can specifically apply to a concrete energy savings case. The agreement should as a minimum include: Date of entering into the agreement. Name and contact information of the concrete network or distribution company entering into the agreement. Name and contact information of the operator. The statement "The operator is aware of and complies with the provisions stating that the saving from a concrete energy savings case can only be transferred to one network or distribution company", cf. the phrasing in the standard template (see section 11.1.2).

- marketing of the effort should refer to the arrangement as "The energy companies' energy savings effort".
- Information about how it is a prerequisite for including the energy saving that prior to initiation of the realisation there exists a written agreement about transference of the energy saving to a named network or distribution company, cf. section 7.2.2.
- Guidelines for how and when the documentation is delivered to the company.
- Information stating that the operator if the operator pays out subsidies to the end user or the service is in the form of consultancy – complies with the rule that an invoice should include wording about transference of the energy saving, cf. section 11.6.1.
- Information stating that the Danish Energy Agency in connection with a spot check or the like has access to verify with the end user that the energy saving has actually been implemented as appears from the documentation.
- 11.4.2 If there are more intermediaries between the network or distribution company and the operator that is in contact with the end user, there should be agreements in place between all links of the agreement chain. These agreements should carry forward the conditions, cf. section 11.4.1, that have been agreed upon between the network or distribution company and the operator.

- 11.5 Network and distribution companies should ensure that for all reported energy savings cases, there exists documentation of the network or distribution company's prior involvement, including an agreement that contains information about the concrete project. The documentation for each individual energy savings case should include the following:
 - Unequivocal identification of the energy saving and the involved parties, including an accurate project title or description of the concrete initiatives that have resulted in the reported energy saving, ensuring that the individual energy savings initiative can be unequivocally identified.
 - Information that shows that the agreement about involvement has been entered into before the initiation of realisation.
 Entering into a binding agreement on the purchasing of equipment et cetera or a binding agreement on commencement of implementation of the project is considered initiation of the realisation.

An elaboration of the above information appears from sections 11.5.1, 11.5.2 and 11.5.3.

- 11.5.1 For cases where the network or distribution company has used an operator, the written and dated agreement between the end user and operator that is entered into prior to commencement of a concrete energy savings project at an end user should as a **minimum** include:
 - A description of the agreement pertaining to "The energy companies' energy savings effort". The Technical Working Group can supplement this standard wording, including possibly approving of a logo for use.
 - The date of entering into and signing the agreement on transference of the energy saving, cf. section 7.2.
 - Information about how the operator is involved in the realisation of the concrete energy savings project (consultancy and/or subsidies, including the subsidy's size in DKK/kWh or the total amount).
 - Possibly information with an estimate of the size of the saving in kWh or MWh.
 - Description of the concrete project, including the initiatives that lead to the realisation of the saving.
 - Unequivocal identification of the end user. This should as a minimum include name and address, but where relevant, it should be supplemented with a BBR and/or CVR number.
 - Information about the installation address.
 - Confirmation from the end user that the saving is transferred to a network or distribution company – with the company's name being mentioned. If the operator has agreements with several companies, the agreement between the end user should include contact information of the operator (phone number and email address) as well as a link to the operator's website where information about the names of all the companies that the saving can be transferred to should be immediately

available.

- The end user's confirmation that the project has not been initiated when entering into the agreement, that is, no binding agreement has been entered into, cf. sections 7.2.1 and 7.2.2.

These requirements can be met by using the standard templates, cf. section 11.1.2.

- 11.5.2 For cases where the network or distribution company has a direct agreement with an end user, the dated and written agreement between the end user and the network or distribution company that is entered into prior to commencement of a concrete energy savings project at an end user, should as a minimum include:
 - A description of the agreement pertaining to "The energy companies' energy savings effort". The Technical Working Group can supplement this standard wording, including possibly approving of a logo for use.
 - The date of entering into and signing the agreement on transference of the energy saving, cf. section 7.2.
 - Information about how the company is involved in the realisation of the concrete energy savings project (consultancy and/or subsidies, including the subsidy's size in DKK/kWh).
 - Description of the concrete project, including the initiatives that lead to the realisation of the saving.
 - Unequivocal identification of the end user. This should as a minimum include name and address, but where relevant, it should be supplemented with a BBR and/or CVR number.
 - Information about the installation address.
 - Confirmation from the end user that the saving is

transferred to the network or distribution company.

The end user's confirmation that the project has not been initiated when entering into the agreement, cf. sections 7.2.1 and 7.2.2.

These requirements can be met by using the standard templates, cf. section 11.1.2.

- 11.5.3 For cases where the energy saving is achieved by means of internal projects within a committed network or distribution company for example optimisations of the pipe network, of own buildings, establishing solar heat facility and heat pumps in the district heating network et cetera there should prior to commencement of a concrete energy savings project exist a document that as a **minimum** includes:
 - A description of how the company is involved in the realisation of the concrete energy savings project as well as justification for the project being part of the company's energy savings effort.
 - Description of the concrete project, including the initiatives that lead to the realisation of the saving.
 - Written transference of the energy savings, that is, a confirmation that the project is part of the company's energy savings effort. This transference should be dated before a binding decision has been made about the realisation of the concrete project.

These requirements can, for example, be met in the project proposal for a concrete project or via board material and minutes.

- 11.6 The companies should for all reported energy savings cases have documentation that shows that the savings have actually been implemented, and the documentation should allow for in relation to spot checks et cetera verifying that this is the case. There should exist documentation for the concrete project having been realised in accordance with the conditions of the documentation.
- 11.6.1 Documentation for realisation of the concrete energy savings projects should as a **minimum** include:
 - Dated invoice or other documentation for the project having been implemented and completed.
 - If invoices only exist for purchased materials for example in cases of DIY work an invoice is not sufficient documentation for the realisation of the project. It should be supplemented with written documentation that shows that the project has been realised, for example by means of photographic documentation.
 - When subsidies are paid out via an operator or when the operator's service is consultancy, the invoice should include:
 - The wording "The saving has been transferred to [the network and distribution company/companies name/names]" alternatively "The saving has been transferred to one of the network or distribution companies that appear from the operator's website (link)".
 - o Date of completion of the realisation.
 - Information about address where the saving has been realised.
- 11.6.2 The time of realisation should be after the time of entering into an agreement. For energy savings projects that can be implemented in a single work day, the prior agreement and documentation for realisation can have coinciding dates.
- 11.6.3 In cases where network and distribution companies and/or operators realise savings upwards of 5 MWh by handing out or offering discounts on purchases of smaller energy saving equipment such as pipe insulation, LED lightbulbs et cetera the realisation should be documented by a combination of the following two elements:

Written confirmation from the concrete end users (with name and address indicated) that the end user within a
maximum of 2 months will install the purchased
equipment/material.
2) The network or distribution company should conduct spot
checks to ensure that the equipment, including the number
of units, has been installed as required by the written
confirmation. The Technical Working Group compiles
guidelines for the spot checking of energy savings following

handing out or discounts. The guidelines are available from

the Danish Energy Agency's website [link].

- 11.7 For energy savings with a *specific statement calculation*, the documentation should in addition to the requirements of sections 11.1-11.6 include a description of the technical elements of the project and of the statement calculation, including the energy consumption for the before and after situations.
 - For all projects that use a specific statement calculation of the energy saving also including energy savings from pipe network, solar panels and heat pumps et cetera the documentation should include information about the project's simple payback time.
- 11.7.1 It should appear from the documentation that the saving for the specifically calculated energy saving has been determined in accordance with the applicable regulations, cf. paragraph 10 on statement calculation methods.
- 11.7.2 The documentation for the specific statement calculation should include concrete assessments of whether or not the applied method renders reasonable results. This can, for example, be the listing of an energy balance or a comparison of the energy saving to the total consumption of the before situation.
- 11.7.3 The network or distribution company should be able to document all calculations, measurements and other circumstances in relation to the calculation of the concrete energy saving, cf. paragraph 10. The documentation should as a minimum include:
 - A description of the before situation and the relevant technical elements of the initiative. The description should in a manner that is understandable and comprehensible to an outside third party account for the activities that lead to the energy saving, including which changes, replacements and/or installations that are implemented.
 - Calculation of the energy consumption before implementation of the initiative – the reference. The before consumption should be documented by the calculated consumption, invoice, printout from energy company or documented measurement. In case of calculated consumption, the applied preconditions et cetera should be evident. A written declaration from the end user or operator on the size of the before consumption is not sufficient for meeting the documentation requirement for the before consumption.
 - Calculation of the energy consumption after implementation of the initiative. In case of calculated

- consumption, the applied preconditions et cetera should be evident.
- Calculation of the initiative's expected or actual effect as expressed by the total energy saving from the initiative's first operational year after implementation, including:
 - Applied conditions (working time, production changes, power rating, key figures et cetera) as well as documentation if these divert from normal conditions.
 - b) Applied documented key figures.
 - Applied conditions for new facilities and expansion of capacity, including documentation for determining the "standard of the day" and the need for expanded capacity.
- The project's simple payback time if there is any financial involvement in the project, cf. section 7.4.
- Information about the type(s) of energy that the saving involves. When converting, state both the energy type that is converted from and to.
- Information about applied prioritisation/conversion factors.

11.8	When using standard values, the documentation should – in addition to the requirements of sections 11.1-11.6 – feature an identification of the used standard value(s), including documentation of the actual "before" situation of the individual premises.	11.8.1	 The documentation for use of standard values should – in addition to the requirements of sections 11.1-11.6 – feature the following: Documentation that the before situation corresponds to the conditions of the applied standard value. This can, for example, be a brief written assessment from the operator combined with photographic documentation, printout from OIS, BBR, energy labelling or energy inspection report, floor plans or – if relevant – copy of the energy bill et cetera. Identification of applied standard value(s). Calculation of the saving – number of units multiplied by the applied standard value, (standard value reference). This should be the actual number of units, for example the measured window area or measured pipe section. Information about the energy type(s) that the saving involves. Information about the applied prioritisation factor. The before situation should be documented for each individual project and facility, cf. sections 10.3.3, 10.3.4 and 10.3.5.
11.9	The network and distribution companies should be able to document their expenses for acquiring the right to report the energy savings of the different agreements with operators and end users as well as expenses for quality assurance et cetera.	11.9.1	The documentation should be put at the authorities' disposal in relation to evaluations, cost analyses, spot checks, other inspections et cetera. The documentation of expenses should not be available in relation to the individual cases.

12 Quality assurance and double counting

- 12.1 All network and distribution companies are responsible for the reported energy savings being accurate and in accordance with the established requirements. With regards to ensuring this, the individual network and distribution companies should:
 - a) Establish quality assurance systems/procedures for the handling of energy savings cases.
 - b) Conduct quality assurance that entails employment of the procedures of the quality assurance system in relation to the individual energy savings cases.
 - Conduct quality control of selected energy savings cases prior to reporting.
 - d) Conduct audits of the quality assurance system.
 - e) Be at the disposal in relation to the Danish Energy Agency's implementation of impartial spot checking, other inspections and evaluations.

Network and distribution companies that have entered into an agreement with an operator about handling *all* of the energy savings commitment should ensure that the operator meets the requirements of paragraph 12.

12.2 Quality assurance system

The companies should establish procedures for conducting the energy savings effort, including the signing of agreements with operators, administration and archiving of the individual energy savings cases, reporting of savings, calculating and reporting expenses, completing quality control, completing audits, follow-up on spots checks et cetera.

- 12.2.1 A quality assurance system should ensure that the conducting of energy savings cases at the individual companies is done according to systematic and consistent procedures among the employees. The quality assurance system should as such establish procedures for all parts of the conducting of the energy savings effort, including:
 - Entering into agreements with operators, for example consolidated companies handling the network or

As long as the quality assurance system meets the requirements of this agreement, the network and distribution companies are free to choose the design of the system.

The quality assurance system should be documented in writing. The companies' quality assurance systems should be updated to the extent that ongoing quality assurance, quality control (internally as well as externally) or audits give rise to updates/adjustments.

distribution company's energy savings effort in accordance with the principles of section 6.4, including the rules that agreements should be entered into on a marketappropriate basis

- Entering into agreements with end users
- Administration and archiving of the individual energy savings cases, including the registering of information used for double counting
- Submitting information used for coordination as well as follow-up on the results from this
- Calculating and documenting savings
- Reporting of savings
- Calculating and reporting expenses
- Conducting quality control, including spot checks
- Conducting audits
- Follow-up on quality control, audits and spot checks
- Reporting to the Danish Energy Agency

The Technical Working Group compiles a guide with examples of quality assurance systems. The guide is available from the Danish Energy Agency's website [link].

12.3 Quality assurance

The companies should by means of the procedures established in the quality assurance system, cf. section 12.2.1, ensure that documentation and reporting – also including documentation of savings implemented by operators acting on behalf of the company – is accurate and meets the requirements of this agreement.

The procedures of the quality assurance systems should be used on an ongoing basis in relation to all cases.

12.3.1 The quality assurance should encompass:

- Ensuring that the project meets the requirements of this agreement, including that there is a proper chain of agreement prior to commencement of realisation and that the agreements are in accordance with the documentation requirements, cf. paragraph 11.
- Ensuring that the saving has been calculated using the correct method, cf. paragraph 10, and documented in accordance with the provisions of paragraph 11.
- An assessment that the calculated energy saving is reasonable under the given conditions, for example by comparing the energy saving to the before consumption.
- Ensuring that documentation exists for the realisation of the saving and that the documentation is in accordance with the requirements in paragraph 11.
- Ensuring that the energy savings are registered properly, cf. section 12.10 and paragraph 13.

12.4 Quality control

All network and distribution companies should as part of their quality assurance once a year conduct a quality control of select energy savings cases prior to reporting with an eye to ensuring that the energy savings cases meet the provisions of the agreement concerning the calculation of savings and documentation.

The quality control should ensure that the provisions concerning the calculation of savings and all documentation requirements are fulfilled and should as such have a special focus on technical and calculation-related elements.

The quality control should cover a representative cross section of the company's cases, including from different operators, cases that the company is conducting on its own, cases of various sizes et

- 12.4.1 Internal quality control should for all companies except for companies with an annual energy savings goal below 2 TJ be conducted by one or more people that are independent of the concrete cases that are to be inspected and possess sufficient knowledge of the agreement's provisions and technical expertise for assessing the concrete projects as well as the used statement calculation method and the prerequisites for calculations. It is the company's responsibility that the internal quality control is conducted by one or several people that comply with these requirements.
- 12.4.2 The company can choose to let the quality control be conducted by external inspection every time.
- 12.4.3 For *external* quality control, the inspection should be conducted by an independent third party with sufficient knowledge of the agreement's provisions and technical

cetera.

This requirement applies for all companies that report savings for a given year. In case a company does not report energy savings, there is as such no need for conducting quality control for that year.

At least every second quality control should be conducted by an independent third party.

If the quality control finds that a concrete energy savings case does not comply with the provisions of this agreement, the network or distribution company should address the quality control's assessment and decide whether or not to report the saving before the documentation has been changed to comply with the requirements of the agreement, including that any missing documentation is provided or that the calculation of the saving has been adjusted.

The company/inspector compiles a report of the conducted quality control, including how many cases and which cases have been selected for inspection, the results of the inspection and recommendations to the company about any possible corrective actions. The report should be kept for at least 5 years and should be made available for internal and external audits in connection with the Danish Energy Agency's spot checks.

The quality control can be conducted in connection with an audit, cf. section 12.5.

Any mistakes found by the quality control, the company's assessment of these as well as follow-up should be reported on an annual basis to the Danish Energy Agency, cf. section 12.6.

- expertise for assessing the concrete projects, including the used statement calculation method and the prerequisites for calculations.
- 12.4.4 The inspector cannot invalidate concrete energy savings cases but instead make the company aware of inexpediencies and present recommendations for corrective actions in case the documentation and calculation of the saving is not considered by the inspector to meet the requirements of the agreement.
- 12.4.5 The Technical Working Group establishes principles for the size and selection of cases for spot checks. Principles for the spot check for the annual quality control (external as well as internal) are compiled. These notes are available from the Danish Energy Agency's website [link].

12.5 Audit

As part of the quality assurance, all network and distribution companies should once a year conduct an audit with an eye to ensuring that:

- a) The company has implemented a quality assurance system that meets the requirements of this agreement.
- b) The quality assurance system is complied with by conducting spot checks of reported savings.

An audit encompasses inspection of the above through spot checking of select energy savings cases.

At least every second audit should be conducted by an independent third party. This can, for example, happen as part of a certified quality assurance system. The years when an external audit is not conducted, an internal audit should be conducted by the company itself.

This requirement applies for all companies that report savings in a given year. If the company does not report any energy savings, an audit is as such not required for that year.

For both internal and external audits, the auditor will produce a written audit report. The network and distribution companies should keep the audit reports from conducted audits for at least 5 years, and these should be able to be made available in connection with the Danish Energy Agency's annual spot checking and in connection with a possible evaluation of the energy savings agreement.

An audit can be conducted in connection with the quality control, cf. section 12.4.

There should be annual reporting of audits to the Danish Energy

- 12.5.1 Internal audit should for all companies except for companies with an annual energy savings goal below 2 TJ be conducted by one or more people that are not involved in the energy savings effort and who are independent of the concrete cases that are to be audited and possess sufficient knowledge of the agreement's provisions and expertise for auditing, including having participated in at least 2 previous audits. It is the company's responsibility that the internal audit is conducted by people that comply with these requirements.
- 12.5.2 The company can choose to let the audit be conducted by an external auditor.
- 12.5.3 External audit should be conducted by one or more people that are independent of the concrete cases that are to be audited and possess sufficient knowledge of the agreement's provisions and expertise for auditing, including having conducted at least 2 previous audits.
- 12.5.4 Based on an audit, the auditor will produce a written report that features an overall assessment of the company's handling of the energy savings effort and the quality assurance of this effort. If the auditor finds inexpediencies in the company's procedures or conducting of quality assurance, the report should include recommendations for corrective actions moving forward.
- 12.5.5 The annual audit report for the company is completed in accordance with an established template. The template has been produced by the Technical Working Group and is available from the Danish Energy Agency's website [link].
- 12.5.6 An auditor/audit cannot invalidate concrete energy savings cases but instead make the company aware of inexpediencies and present recommendations for corrective actions in case there are elements in the quality system itself, the ongoing quality assurance and/or control that do not meet the requirements of the agreement or are not complied with in

	Agency, cf. section 12.6.	12.5.7	 the handling of the energy savings effort. The auditor should in relation to audits also check that: The network or distribution company has actively addressed the conclusions of the conducted quality control and carried out the corrective actions that the company has found necessary. The company has handled the result of the previous year's double counting control, cf. section 12.10.
		12.5.8	If the network and distribution companies have entered into an agreement with an operator about handling the <i>entirety</i> of the company's energy savings commitment, the requirements in section 12.5 should be met by the operator. There should as such also exist similar documentation for the operator having conducted an audit.
12.6	Reporting of results from quality control and audit The network and distribution companies should every year no later than July 1 st submit a summary of the results from the quality control and audit to the Danish Energy Agency in connection with the reporting of savings. The reporting is submitted to the Danish Energy Agency via the collaborating body.	12.6.1 12.6.2 12.6.3	The summary should be in the form of one separate document and should adhere to an established template. The summary contains the results of the quality control and audit as well as the company's assessment of the results and description of the corrective actions that are implemented based on this. The template has been produced by the Technical Working Group and is available from the Danish Energy Agency's website [link]. If the network and distribution companies have entered into an agreement with an operator about handling the entirety of the company's energy savings commitment, the operator should comply with the requirements of section 12.6. The summary can potentially form the basis for subsequent inspection by an authority if it is deemed that more consistent or repeated mistakes happen in a company.
12.7	Spot checking	12.7.1	During a spot check, a number of cases are checked to make sure that the documentation and statement calculation is
	Once a year, the Danish Energy Agency will conduct independent		accurate in relation to the concrete savings cases that have

spot checking across all of the involved network and distribution companies. These spot checks will be focused on verifying that the companies' reported savings and documentation adhere to the requirements and commitments in relation to this agreement and whether or not the companies conduct annual quality control and audits and have established relevant quality assurance systems. When considered for the entirety of the agreement period, the spot checking should encompass a representative and significant percentage of the companies and cases.

Upon the Danish Energy Agency's follow-up on spot checking with the checked companies, the companies have an obligation to correct any mistakes found and conduct additional follow-up activities.

If the Danish Energy Agency in relation to the spot checking requests that a network or distribution company conducts corrections of concrete energy savings or adjusts procedures in relation to the handling of the energy savings effort, the company should comply with this. The company should subsequently document to the Danish Energy Agency that the correction has been conducted.

If an electricity network, natural gas distribution or district heating company disagrees with the Danish Energy Agency's final decision, it can be appealed with the Energy Appeals Committee, cf. the rules concerning this in the declaration on energy savings benefits in network and distribution companies. If the oil companies disagree with the Danish Energy Agency's final decision, it can be appealed with the minister.

been implemented at end users and in internal projects at a committed network or distribution company. In addition to this, it is checked that the individual companies adhere to the general guidelines, including the provisions for agreements and involvement, that the companies have established relevant quality assurance systems and conduct the annual quality control checks and audits.

- 12.7.2 Spot checking will encompass all intermediaries from the reporting company to the end user where the saving has been accomplished.
- 12.7.3 Spot checking is conducted on a representative percentage of the reported energy savings for the given year. The Danish Energy Agency devises methods for the selection of companies and concrete cases. The method can vary from year to year with an eye to focusing on different segments and types of projects. The method is discussed with the Technical Working Group prior to conducting the spot checking.
- 12.7.4 The network and distribution companies should when requested by the Danish Energy Agency hand over information to be used for the spot checking, including documentation and agreement terms in relation to reported savings.
- 12.7.5 When the Danish Energy Agency selects a company for spot checking, the relevant contracting party/collaborating body should be informed of this.
- 12.7.6 The Danish Energy Agency discloses the results of the spot checking on the agency's website, including information about any general mistakes and how the subsequent follow-up with the companies is to be conducted.

12.8	The Danish Energy Agency has the right to select a network or distribution company for checking at any time.	12.8.1	The network and distribution companies should when requested by the Danish Energy Agency hand over information to be used for the checking, including documentation and agreement terms in relation to reported savings. If the Danish Energy Agency selects a company for checking, the relevant contracting party/collaborating body should be informed of this.
12.9	The Technical Working Group clarifies whether there should still exist a verification unit with an eye to giving network and distribution companies and any operators and end users a possibility for having calculation methods et cetera pre-approved for concrete projects.	12.9.1	
		12.9.2	In relation to a possible future verification unit, it should be clarified whether the verification in addition to the calculation method et cetera should also encompass all other circumstances in relation to the concrete project, including agreement chain et cetera.
		12.9.3	Clarification on whether there should continue to be a verification unit and the possible framework for this should be concluded no later than 3 months after signing of the agreement.

12.10 In order to prevent double counting, the collaborating bodies
conduct a cross-referencing of all cases across all industries on an
annual basis.

- 12.10.1 The cross-referencing is conducted after the reporting of savings on April 1st of each year. For the use of this, the individual companies submit in connection with the annual reporting to the collaborating body a file with a range of specific information per case. The Technical Working Group establishes the specific information that should be provided, draws up a timetable and appoints a person in charge of the coordination. The costs for cross-referencing will be covered by the collaborating bodies.
- 12.10.2 The checks will be completed no later than July 1st of the year in question. The results of the cross-referencing will be in the form of a list of the cases that have been reported by one or more companies. The companies affected will be informed about which cases are an issue and which other companies have reported the same savings.

It is the responsibility of the companies to decide who has the right to report the savings. The companies that do not have a right to report the savings in question should correct the reporting for the year in question at the next reporting. Any compensation in relation to operator and end user is handled by the affected companies.

If disputes arise as to who has the right to report the saving, the arbitrator is brought in, cf. section 12.11.

12.10.3 The collaborating bodies should ensure that the cross-referencing is in accordance with the current rules, for example the personal data protection act, including obtaining any required permissions.

- 12.11 In case of a dispute, the cases can be presented to an arbitrator who will decide the ownership/allocation. The arbitrator can in his decision emphasise how the realisation of the savings have been set in motion, who it was that prompted the implementation, weighing with relation to applied resources, dates of documentation of the implementation et cetera.
 - The arbitrator function is managed jointly by the collaborating bodies/companies. Expenses for making decisions in the concrete cases/disputes are covered by the companies involved.

- 12.11.1 The Technical Working Group compiles more detailed guidelines for the arbitrator's work.
- 12.11.2 The Technical Working Group determines the guidelines for distribution of expenses in relation to the arbitrator function, including guidelines for payment for concrete cases. The basic rule is that the party that is not ruled in favour of must pay for the handling of the case. A fee for presenting a case to the arbitrator can potentially be established.

- 12.12 In cases where network or distribution companies become aware of circumvention of the regulations by other companies or operators, the network or distribution companies can report this to the arbitrator, who can look into the case in more detail, including assessing whether or not it is truly circumvention of the agreement's guidelines as well as deciding on how to further handle the case. Other parties, including operators and end users, cannot report cases to the arbitrator.
 - Expenses in relation to employing the arbitrator for decisions about circumvention of provisions are covered by the collaborating bodies jointly. However, a start-up fee can potentially be established.

- 12.12.1 The Technical Working Group compiles more detailed guidelines for the arbitrator's work as well as guidelines for the financial conditions, start-up fees, reimbursement of expenses et cetera.
- 12.12.2 The company that wishes to present a case to the arbitrator should substantiate presenting the case with relevant documentation. The Technical Working Group can compile guidelines for the contents of the case.

13 Reporting					
13.1	Based on the documentation, the collaborating bodies annually report the individual industries' total annual realised energy savings to the Danish Energy Agency. The reporting to the Danish Energy Agency should be no later than April 1 st for energy savings for fulfilment of the preceding year's savings commitment.				
13.2	When reporting energy savings, each industry or party with its own savings goal, cf. section 4.2, should use the reporting forms that appear from appendix 5.				
13.3	An energy saving cannot be reported before it is realised and the documentation has been finalised. The guiding principle is that the reporting of an energy saving should be done for the year in which the realisation and documentation of the concrete energy saving has been completed, but cf. section 13.3.2.	13.3.1 13.3.2 13.3.3	As a rule, the savings should be reported the year that the realisation and documentation of the concrete energy savings have been competed, cf. paragraph 11. When an energy saving is calculated based on the measurement method, the saving is realised and completed when the documentation with measurements and calculation has been finalised. A project that consists of one or more sub-projects – even if the sub-projects are completed in different years – should be reported in the year that the overall project has been realised and documented, cf. section 7.1.3. A network or distribution company can, however, make arrangements with one or more operators – that they have agreements with – about the transference of realised and documented savings to the network or distribution company being deferred to the following years under the following conditions: a) The transference for the following year can – as is the		

agreement with prior to the realisation of the saving.
b) The network and distribution companies should at the
end of the year establish how many savings that the
operators they have agreements with have completed
but not transferred. The individual collaborating bodies
report to the Danish Energy Agency how many savings
have been completed but not transferred no later than
April 1 st in connection with reporting, cf. section 13.1.

13.4	Savings that have been realised and documented in accordance with the provisions can be transferred from one network or distribution company to another, possibly via an intermediary with a letter of attorney from the selling network or distribution company. Such a transference can only be conducted after the saving has been realised, but the transference between the companies should be done before the saving is reported to the Danish Energy Agency. The documentation should at any time be available to the company reporting the saving to the Danish Energy Agency.	13.4.1	The transference should be documented with both the selling and buying network or distribution company.
13.5	In cases where the quality control, audit or the Danish Energy Agency's spot checking or inspecting, cf. paragraph 12, gives rise to corrections of reported energy savings, these corrections should be conducted in connection with the next reporting. Corrections of reported energy savings for a given year should appear distinctly from the filings for the following year, cf. the reporting forms as established in appendix 5.		
13.6	For the purpose of a joint reporting, the collaborating bodies receive statements from the respective companies that are encompassed by agreed upon savings goals, cf. section 4.2. Companies that have been imposed individual savings goals by the minister should report statements to the Danish Energy Agency via the relevant collaborating body.		

13.7	In connection with the collaborating bodies reporting the industry's total energy saving for the preceding year, cf. section 13.1, they will report a statement that contains information about the individual companies' accumulated goals, cf. sections 4.3-4.6, the individual companies' realised and reported energy savings for the preceding year as well as the individual companies' accumulated reported energy savings since 2006.	13.7.1	The realised energy savings that appear from this statement are used when compiling the annual benchmark analysis. Any subsequent adjustments to this energy saving will be included in the following year's benchmark analysis.
13.8	The individual network and distribution companies will via the collaborating body on an annual basis report the results of their quality control and audit to the Danish Energy Agency, cf. section 12.6.		
13.9	The network and distribution companies will annually report their expenses for fulfilling the energy savings commitments in the preceding year. For the electricity network, gas distribution and district heating companies, this reporting is done to the Danish Energy Regulatory Authority. The electricity network and gas distribution companies report their expenses as part of their annual adjustment statements no later than May 31 st . The district heating companies report their expenses collectively and no later than April 1 st . For the oil industry, the reporting to the Danish Energy Regulatory Authority should be done no later than April 1 st .	13.9.1	The Danish Energy Agency in the declaration on energy savings benefits in network and distribution companies establishes the rules for calculating the companies' expenses in relation to the energy savings effort.

13.10 The individual collaborating bodies will no later than July 1 st report their distribution of the preceding year's expenses across different agreement types et cetera, cf. form 5 of appendix 5, to the Danish Energy Agency.	13.10.1 With regards to evaluations, cost analyses et cetera, the information in form 5 of appendix 5, including the percentage that is used for administration, for the individual network and distribution companies should be made available if requested by the Danish Energy Agency. This is done on the condition that the information is not used and made public in a manner that allows for identifying the individual companies.
13.11 No later than 2 months after entering into the agreement, the collaborating bodies will report an overview of the companies that have reported energy savings that exceed their goal up until December 31 st , 2018, cf. section 15.8.1 on transitional provisions.	
13.12 Network and distribution companies that sell an already reported energy saving should report the amount sold in connection with the industry's reporting of the realised energy savings, that is, no later than April 1 st .	

14 Determination and regulation of the network and distribution companies' expenses

- 14.1 In accordance with the overall framework for this agreement, the electricity network, natural gas distribution and district heating companies can include expenses in relation to activities that are part of a cost-effective fulfilment of the energy savings commitment with reference to this agreement.
- 14.1.1 In addition to expenses for realisation of verifiable energy savings, these include:
 - Expenses for administration, including staff charges.
 - Expenses for participation in the collaborating body et cetera.
 - Expenses for quality assurance and double counting.
 - Expenses for marketing of the arrangement.
 - Expenses for involvement in energy savings projects that are not completed/do not result in energy savings and cannot be included.
 - Expenses for the implementation of energy savings projects that the Danish Energy Agency in connection with a spot check informs the company cannot be included for calculating whether or not the company achieves its energy savings goal.
- 14.1.2 Rules describing which expenses can be included as well as the calculation of expenses will be finalised in the declaration on energy savings benefits in network and distribution companies.
- 14.1.3 Until the declaration on energy savings benefits in network and distribution companies applies, the expenses should be calculated in accordance with the Guide for network and distribution companies in relation to calculating and reporting expenses related to energy savings activities (Vejledning til net- og distributionsselskaberne i forbindelse med opgørelse og indberetning af omkostninger forbundet med energibesparende aktiviteter).

14.2	The expenses that the electricity network, natural gas distribution and district heating companies have in relation to fulfilling their savings commitments should be borne by the end users, excluding transportation (that is, households, the public sector, retail and services as well as production industries), and the energy consumption of the production facilities where energy savings can be included, cf. section 3.6.2 (that is, consumption for ventilation, lighting, pumps, heating facilities as well as consumption in administration buildings).	14.2.1	The energy consumption at collective production facilities that is not used as fuel for the production of electricity or heat – and where no energy savings are included, cf. section 3.6 – can be imposed an energy savings contribution, under the condition that this consumption is settled via a separate consumption gauge.
14.3	The individual electricity network and natural gas distribution companies will be covered for the actual expenses that have been borne in order to achieve the savings that are reported for a given year, deducted any income achieved within the scope of this agreement. These expenses are covered via a supplement to the revenue cap.		
	The Danish Energy Agency determines the supplement to the revenue cap for covering of net costs in the energy savings effort. The supplement is determined in advance as a temporary increase of the revenue caps based on the average actual expenses for the industry in question in the preceding year.		
	Based on the accounts information about the individual companies' expenses in fulfilling the savings commitment, an adjustment is conducted on a company level, ensuring that the companies have their actual expenses covered. This adjustment implies that if a company in a financial year have had greater expenses than presupposed when determining the increase of the revenue cap for the year in question, it is adjusted in the most immediately following financial years through a supplementing increase of the revenue cap for that year. If a company in a financial year has had fewer expenses than presupposed when determining the increase		

	of the revenue cap, the amount is reimbursed to the consumers through a temporary lowering of consumer prices in the immediately following financial years. Expenses in relation to the fulfilment of the savings commitment is kept separate of the revenue cap regulations' general rules on benchmarking and implementation of efficiency requirements.		
14.4	District heating companies' actual expenses that have been borne in order to achieve the savings that are reported for a given year, deducted any income achieved within the scope of this agreement, can be included in the tariffs as a necessary expense in accordance with the provisions of the heat supply act.	14.4.1	With regards to internal projects within a committed company, the expenses for the project can be based on the previous year's average benchmark for all contracting parties.
14.5	The expenses and revenue of the electricity network, natural gas distribution and district heating companies in relation to the fulfilment of the savings commitment is with regards to accounting kept separate from the companies' other expenses and revenue.		
14.6	No legislation exists that allows for the oil companies to charge specific contributions from their customers for covering the oil companies' expenses in realising energy savings.		

14.7	Based on the network and distribution companies' reported expenses and the individual companies' realised energy savings — which are reported to the Danish Energy Agency, cf. section 13.7 — the Danish Energy Regulatory Authority compiles a comprehensive benchmark for the electricity network, gas distribution and district heating companies. The date of publication of benchmarks is established in the declaration on energy savings benefits in network and distribution companies.	14.7.1	Benchmarks for all collaborating bodies are made public on the Danish Energy Agency's website [link].
14.8	Based on the annual benchmark analysis of the companies' expenses, the Danish Energy Agency will annually conduct a cost analysis. The analysis is conducted across the network and distribution companies with the 5% highest expenses per reported kWh, but always up to 35 companies. Companies with some of the lowest expenses may also be selected. The analysis is to identify how the companies have ensured their cost-effectiveness in the energy savings effort, including shedding a light on focus areas, methods and expenses as distributed across the focus areas.	14.8.1	 The selected companies will be asked to submit a report to the Danish Energy Agency that includes: Documentation of the company's expenses, including a distribution across the various expense types, cf. form 5 of appendix 5. Accounting for their focus areas, methods and the general background for the expenses for the achieved results.
14.9	Based on the above analysis, the Danish Energy Agency can – if mistakes or inexpediencies are identified – enter into an agreement with the companies in question about how to ensure cost-effectiveness in the future. If no agreement can be reached about ensuring this, the Danish Energy Agency will take steps in accordance with the declaration on energy savings benefits in network and distribution companies.	14.9.1	Based on the report, the Danish Energy Agency will conduct an overall assessment of the given company's costeffectiveness. The Danish Energy Agency can subsequently enter into concrete agreements with each individual affected company about changing the effort going forward. The decision should be complied with no later than January 1 st of the following year.

15	Fransitional provisions		
15.1	The fundamental idea is that the industries and the individual electricity network, natural gas distribution, district heating and oil companies at the termination of the agreement fulfil the energy savings goals that are established in paragraph 4.	15.1.1	If an electricity or district heating company violates the commitments of the agreement, the company can be excluded by the collaborating body, cf. section 5.2, that they are part of and instead be encompassed and regulated by the energy savings declaration, cf. section 2.4.
		15.1.2	An excluded company will subsequently be assigned an individual savings goal in accordance with the rules of the declaration.
15.2	The maximum shortfalls at the end of the different years appear from section 4.7.		
	If the shortfall at the end of a year is greater than established in section 4.7, the contracting party must outline a plan for fulfilment of the commitment. This plan should be submitted to the Danish Energy Agency.		
15.3	Network and distribution companies that have realised too many energy savings can – before they report energy savings for the preceding year – sell the excess at market prices to network and distribution companies that have realised too few energy savings, cf. the provisions of section 13.4.		
	This equalisation can be done across the industries. The network and distribution companies should by means of this option strive towards the greatest possible equalisation.		

15.4	When the agreement has been terminated for one or more contracting parties, that is, no later than 12 months before the agreement expires, and up until the new committed companies can enter into agreements about the realisation of energy savings, the network and distribution companies can enter into agreements for which the realisation of savings will be completed no later than 12 months after entering into the agreement. In this period, agreements cannot be entered into that will end after the period. From the time when the new committed companies can enter into agreements, no network and distribution companies can enter into agreements for which the realisation of savings will not be completed until after the agreement has expired.	15.4.1	The network and distribution companies can right up until the agreement expires enter into agreements for which the realisation is completed before the expiration of the agreement. These provisions apply for all network and distribution companies, that is, also companies for which the agreement has not been terminated.
15.5	The network and distribution companies can themselves complete agreements that are entered into before the agreement expires but where the completion is after expiration of the agreement, cf. section 15.4. The expected effect of such agreements is calculated upon expiration of the agreement, and the concrete savings are reported once the projects have completed. The savings are included in the statement of goal attainment.	15.5.1	When the agreement expires before the end of 2020, the individual companies report to the Danish Energy Agency the number and extent of agreements that were entered into before the agreement was terminated and that are not completed until after expiration of the agreement. This should be reported via the collaborating bodies. Guidelines for reporting will be compiled by the Danish Energy Agency at the time of agreement termination.
15.6	The network and distribution companies can to some extent – if the rules for the new committed companies allow it – sell non-completed agreements to the new committed companies, cf. section 15.7.	15.6.1	The rules for the new companies' effort, including the option for purchasing such agreements and savings, should be established in continuation of amendments and as such require that the Danish Parliament passes the necessary frameworks.

15.7 Network and distribution companies that at the expiration of the agreement and following transactions amongst themselves, cf. section 15.3, have exceeded their commitments, can to some extent sell this excess to the new committed companies on market-appropriate terms, cf. section 6.4, if the rules for the new committed companies allow it.

The amounts that the individual companies can sell to the new committed companies can as a maximum constitute the following percentages of their preceding year's goal:

At the end of 2016: Max 50%
At the end of 2017: Max 50%
At the end of 2018: Max 50%
At the end of 2019: Max 20%
At the end of 2020: Max 5%

The expected effect of long-term agreements that are not realised until after expiration of the agreement, cf. section 15.5, and that are sold, cf. section 15.6, are included in the calculation of the maximum amounts that can be sold.

- 15.7.1 The rules for the new companies' effort, including the option for buying such agreements and savings, should be established in continuation of amendments and as such require that the Danish Parliament passes the necessary frameworks.
- 15.7.2 The selling companies are the ones that should ensure that the sale happens on market-appropriate terms, for example that own consolidated companies are not favoured, cf. section 6.4.

15.8	The network and distribution companies that at the end of 2015 have reported energy savings accounting for more than their goal up until the expiration of the agreement by termination, are presented with the option of selling these energy savings on market-appropriate terms if the agreement is terminated with an expiration date that is at the latest December 31 st , 2019. The energy savings that have already been reported cannot be sold until after notice of termination has been given, that is, at least 12 months before expiration of the agreement.	15.8.1 15.8.2 15.8.3	The industries/collaborating bodies will no later than 2 months after signing of the agreement deliver an overview of the companies that at the end of December 2015 have reported to the Danish Energy Agency energy savings that exceed their goals up until December 31 st , 2018. This overview should, in addition to the names of the companies, include information about the size of the companies' already reported energy savings (kWh) as well as the companies' goals for 2016 and 2017, cf. form 7 of appendix 5. The network and distribution companies' opportunity for trading already reported energy savings does not become effective until notice of termination has been given and only if the agreement expires no later than December 31 st , 2019. The network or distribution company that is selling an already reported energy saving should report the sold amount in connection with filing of the statement, cf. form 8 of appendix 5.
15.9	The network and distribution companies' expenses and revenue from fulfilling their energy savings commitments, including from equalisation of energy savings, cf. section 15.3, and from the completion of agreements, cf. section 15.5, are included in the companies' calculation of their costs and as such in the non-profit calculation of costs and revenue from the supplements to the tariffs.	15.9.1	The network and distribution companies can likewise recoup expenses in relation to the completion of agreements about energy savings after expiration of the agreement.

15.10 At the end of the agreement, the individual companies can, however, recoup their expenses for the following excesses in relation to their goal for the preceding year:

At the end of:	If there can be sold to new committed companies, cf. section 15.7	If there cannot be sold, cf. section 15.7
2017	25%	40%
2018	20%	30%
2019	10%	20%
2020	5%	10%

15.10.1 The maximum excess that can be included for the expenses is calculated after any trading of savings and agreements, cf. section 15.3.

16 The parties' acceptance Copenhagen, **Energy, Utilities and Climate Minister Lars Chr. Lilleholt** For the Danish Energy Association For the Danish District Heating Association For the Association of Danish CHP Plants For HMN GasNet For Danish Gas Distribution For NGF Nature Energy For the Danish Oil Industry Association

Appendix 1:

List of activities that cannot be included as an energy saving

(Subject to the list being revised on an ongoing basis and therefore not being exhaustive.)

- Energy savings that are realised on the Faroe Islands and in Greenland, cf. section 3.1.
- Energy consumption for bunkering (international shipping), cf. section 3.1.
- Energy savings in relation to domestic and international air traffic, cf. section 3.1.
- Energy savings from installing a new oil-fired boiler in areas where it is possible to be connected to either district heating or natural gas utilities, cf. section 3.1.
- If a production company or a wastewater treatment plant establishes an energy facility for utilising own production of waste et cetera, no energy saving can be included if the facility exports electricity or gas to the network or to other companies, cf. section 3.2.3.
- Solar heat facilities on buildings that are connected to district heating, unless the facilities are part of the district heating plant's utilities strategy, cf. section 3.4.
- Solar cells, cf. section 3.4.
- Wind turbines, including household turbines, cf. section 3.4.
- Hydroelectric facility, cf. section 3.4.
- Farm biogas facility, cf. section 3.4.
- Collective biogas facility, cf. section 3.4.
- The energy consumption of refineries as well as the energy consumption in the extraction of oil and natural gas, cf. section 3.5.
- Excess heat that is delivered from refineries, cf. section 3.5.2.
- The energy consumption of existing collective production facilities at the production facilities themselves with associated equipment, cf. sections 3.6-3.6.2:
 - Collective electricity and heat production facilities (power and heating plants et cetera)
 - Collective waste incineration plants regardless of size
 - Energy production facilities at end users (boilers, heat pumps, solar heat facilities, CHP facilities, flue gas coolers et cetera) from where heat is delivered to public networks (district heating et cetera) in an amount in excess of 10 TJ annually or that has an installed electricity effect of at least 5 MW
- The utilisation of excess heat from facilities that prior to the utilisation of the excess heat are defined as being collective production facilities, cf. section 3.6.3.

- With regards to projects where the energy saving is calculated specifically, cf. paragraph 10, a network or distribution company cannot participate financially including with subsidies if the simple payback time is less than 1 year, but the companies can participate with consultancy et cetera and through that gain the right to report the energy saving, cf. section 7.3.7.
- If the standard value is zero, no energy saving can be included for the area in question, and a specific statement calculation cannot be used either, cf. section 10.3.
- In special areas where the technological development of components and solutions will, all things being equal, result in an expanded capacity, increased production and energy efficiency, no energy saving can be included that follows from an increased production volume, cf. section 10.6.4 and appendix 3.
- An energy saving that follows from the closing of an energy-consuming facility or the cessation of an energy-consuming activity cannot by itself be included under the terms of this arrangement, cf. section 10.8.
- No energy saving can be included in the company/unit from where production is moved or closed down, cf. section 10.8.1.
- Savings arising from ordinary maintenance cannot be included, cf. section 10.10.

Appendix 2:

Prioritisation and conversion factors

With regards to steering the effort towards savings that have a considerable longevity and will to a great extent contribute towards reducing the gross energy consumption, simple prioritisation and conversion factors should be applied when calculating savings, cf. the provisions of paragraph 9.

1. Prioritisation factors in relation to savings

The prioritisation factors that are used to weigh the first year's savings should be included in the companies' documentation of the savings, cf. paragraph 11, and they should be applied when reporting the savings to the Danish Energy Agency, cf. paragraph 13.

Based on the principles in section 9.3.1, table 1 establishes for which savings initiatives in the end consumption with a longevity of more than 4 years there should be used a factor of 0.5 and for which savings initiatives in the end consumption with a longevity of more than 15 years there should be used a factor of 1.5.

Table 1 is **exhaustive**, and for all other initiatives than those indicated in table 1, a factor of 1.0 should be used.

The Technical Working Group can supplement the overview in table 1 based on the principles of longevity et cetera. Any changes apply from a new calendar year. Changes are announced at least 3 months before they become effective.

Table 1: Overview of initiatives at the end user where a prioritisation factor of 0.5 or 1.5 should be used

Prioritisation factor 0.5

Increased energy efficiency in boilers and heat facilities based on maintenance checks (if the longevity of the saving is less than 1 year, the saving cannot be included).

- Increased energy efficiency in ventilation facilities based on maintenance checks (if the longevity of the saving is less than 1 year, the saving cannot be included).
- Adjustment of heat facilities (if the longevity of the saving is less than 1 year, the saving cannot be included)
- Systematic maintenance checks in excess of normal maintenance for motors, pumps and processing facilities.
- Energy management/handling.
- Feedback on electricity consumption to households with remote reading of gauges.

Prioritisation factor 1.5

- Increased insulation of floors, walls and attic/roof that reduces the heating consumption in buildings that are heated with oil, natural gas, district heating or coal.
- New windows and doors with an A energy rating that reduce the heating consumption in buildings that are heated with oil, natural gas, district heating or coal.
- Replacement of double- or triple-glazed window panes with no coating and gas filling in existing windows to energy window panes with a warm edge and an energy balance glass value (Egref) of at least 50 kWh that reduce the heating consumption in buildings that are heated with oil, natural gas, district heating or coal.
- New doors with window panes where the panes in the after situation are triple-glazed energy window panes and the rest is plate door that reduce the heating consumption in buildings that are heated with oil, natural gas, district heating or coal.
- Establishing heat recycling for heating in relation to mechanical ventilation of buildings that are heated with oil, natural gas, district heating or coal.
- New hot-water tank in buildings that are heated with oil, natural gas, district heating

or coal.

- Insulation of pipe installations connected to facilities for heat in buildings that are heated with oil, natural gas, district heating or coal.
- New oil, gas and bio boilers to the extent that the before situation has a consumption of oil, gas or coal that is not subject to a quota.
- Connecting to district heating to the extent that it is buildings that in the before situation are heated with oil, gas or coal that is not subject to a quota.
- Installation of heat pumps at an end user that supersedes a consumption of oil, gas or coal that is not subject to a quota. This does not apply for heat pumps where the energy saving is achieved by utilisation of excess heat from a company.
- Solar panels on buildings that are heated with oil, natural gas or coal that is not subject to a quota.

For integrated projects that include different energy types and/or sub-projects with different longevities, the savings should be calculated for each type of energy (for example electricity and natural gas). For each type of energy, it should be estimated how large a percentage of the energy saving should have applied a prioritisation factor of 0.5, 1 and 1.5, cf. table 1. The savings should be documented according to this allocation.

When using standard values, the prioritisation factor appears from the catalogue of standard values. The prioritisation factor is not included in the values in the standard values catalogue.

2. Conversion factors

When converting from one type of energy to another, the conversion factors indicated in table 2 should be applied.

Table 2: Conversion factors when converting between energy types in the end consumption

Conv	Factors for m	nultiplication	
From	То	The energy amount that is converted from	The energy amount that is converted to
- Electricity	District heatingFuels subject to a quota (oil, natural gas, coal)	1.8	1.0
- Electricity	Fuels not subject to a quota (oil, natural gas, coal)Biomass	1.0	1.0
District heatingFuels subject to a quota(oil, natural gas, coal)	- Electricity	1.0	1.8
- Biomass	- Electricity	1.0	1.0
- District heating	- Fuels subject to a quota	1.0	1.0
- District heating	- Fuels not subject to a quota - Biomass	0.8	1.0
- Fuels not subject to a quota (oil, natural gas, coal)	- Electricity	1.0	1.0
Fuels not subject to a quotaBiomass	- District heating	1.0	0.8
- Fuels subject to a quota	- District heating	1.0	1.0

- Fuels subject to a quota	- Fuels subject to a quota	1.0	1.0
- Fuels not subject to a	- Fuels not subject to a		
quota	quota		
- Biomass	- Biomass		

Note: Biomass encompasses the utilisation of biomass at the individual end user, not consumption of biomass in the production of district heating and electricity.

When converting from fuels that are not subject to a quota (oil, natural gas and coal) to other types of utilities, including also another fuel that is not subject to a quota, that have a longevity of more than 15 years, both the factors in table 2 and table 1 should be used in relation to conversion projects. In case of such conversions, the direct effect should as such be multiplied by a factor of 1.5 in accordance with table 1. All other conversions should in accordance with table 1 be multiplied by a factor of 1.0. The conversion factors are included in the standard values.

When installing electric-powered heat pumps for district heating production, the electricity consumption is multiplied by a factor of 1.0.

When installing gas-powered heat pumps for district heating production, the gas consumption is multiplied by a factor of 0.8.

Appendix 3:

Areas where an increase in production volume cannot be included

- IT projects (server, storage, wifi technology et cetera)
- Lighting projects (LED et cetera)

Appendix 4:

Maintenance activities resulting in energy savings that cannot be reported

- Acid cleaning of water side of boilers > 135 KW
- Cleaning of flue gas side of boilers > 135 KW
- Optimisation of incineration (adjustment) for boilers
 Applies to optimisation that are conducted with no investment in new components/equipment.
- · Acid cleaning of condenser on compressor facility
- Repairing of leaks (compressed air facility)
- Repairing of steam traps
- Optimisation of operation by adjusting existing equipment

Applies to optimisations that are conducted with no investments in new components/equipment and with no systematic follow-up that a network or distribution company is involved in.

Maintenance check arrangement for boilers and heating facilities

Applies to maintenance checks that do not include corrective actions that result in energy optimisations of the facility in question.

• Maintenance check arrangement for ventilation facilities

Applies to maintenance checks that do not include corrective actions that result in energy optimisations of the facility in question.

Appendix 5:

Reporting in accordance with the agreement

1. Reporting of realised energy savings

The collaborating bodies should, cf. paragraph 13 of the agreement, on an annual basis report to the Danish Energy Agency the data for the realised energy savings et cetera that appear from forms 1-4.

Form 1 should include all the reported realised energy savings, and the number in the lower right field is as such the total number that is used in relation to goal attainment et cetera.

- Lines 1-4 should include the savings that appear from forms 2 and 3.
- Savings in relation to internal projects, including collective solar, energy optimisation of the pipe network (network optimisation), compressors in the gas network and electric- or gas-powered heat pumps in the district heating production et cetera should appear from lines 5, 6 and 7 respectively.
- All savings within the area of transportation should be stated on line 8, and only there. When converting within the area of transportation, the saving is stated under the type of energy that was used before conversion.
- All savings in relation to conversion outside of the transportation area, cf. form 4, should be stated on line 9, and only there, and the saving is stated under the superseded type of energy. For example in case of an "oil to gas" conversion, the saving is stated on line 9 and for the energy type "oil".
- On line 10, corrections in relation to previous filings are reported. If there has previously been reported too much, it should be added as negative corrections.

The industry organisations should along with the reporting of energy savings provide an unbundling of the corrections stated on line 10 of form 1. The corrections should be split up across the individual network and distribution companies as well as for corrections that follow from mistakes found during spot checks and other corrections.

Fo	rm 1: Realised savin	igs across s	ectors and	d energ	y types				
		District	Natural			Coal et			
	TJ	heating	gas	Oil	Electricity	cetera	Biomass	Other	Total
1	Households								
	Specific calculation								
	Standard values								
	Market impact								
2	Public sector								
	Specific calculation								
	Standard values								
	Market impact								
3	Production industry								
	Specific calculation								
	Standard values								
	Market impact								
4	Retail and service								
	Specific calculation								
	Standard values								
	Market impact								
5	Collective solar								
6	Network optimisation								
7	Heat pumps for								
	district heating								
8	Transportation								
9	Conversions								
	Households								
	Public sector								
	Production industry								
	Retail and service								

Form 2: Realise	ed ener	gy savin	gs acro	ss ted	hnolog	ies/area	s and s	tateme	nt calcu	ılation ı	 method	l s					
End-use/TJ	Households Public sector					Production industry				Retail and service				Total			
	Standard value	Specific calculatio	Market impact	Total	Standard value	Specific calculatio n	Market impact	Total	Standard value	Specific calculatio n	Market impact	Total	Standard value	Specific calculatio n	Market impact	Total	
Envelope																	
Windows																	
Replacement of boilers																	
Service check																	
Electric heating																	
Heat facility																	
Ventilation																	
Lighting																	
Processing equipment																	
Cooling																	
Compressed air																	
Pumps																	
Electric motors and transmission for internal transportation																	
Less energy- consuming devices																	

Form 2 should contain a distribution of all the savings that appear from lines 1-4 of form 1.

TJ TJ		ritisation fact	
1	0.5	1	1.
District heating			
Electricity and individual biomass			
Fuels subject to a quota (oil, natural gas, coal)			
Fuels not subject to a quota (oil, natural gas, coal)			

Form 3 should contain all the savings that appear from lines 1-4 of form 1.

Form 4: Realised savings from co	onversion	
From	То	TJ
Electricity	District heating,	
	Fuels subject to a quota (oil, natural gas,	
Electricity	Fuels not subject to a quota (oil, natural	
	gas, coal)	
	Biomass	
District heating	Electricity	
Fuels subject to a quota (oil, natural gas,		
Biomass	Electricity	
District heating	Fuels subject to a quota (oil, natural gas,	
District heating	Fuels not subject to a quota (oil, natural	
	Biomass	
Fuels not subject to a quota (oil, natural	Electricity	
gas, coal)		
Fuels not subject to a quota (oil, natural	District heating,	
gas, coal)		
Biomass		
Fuels subject to a quota (oil, natural gas,	District heating	
Fuels subject to a quota (oil, natural gas,	Fuels subject to a quota (oil, natural gas,	
Fuels not subject to a quota (oil, natural	Fuels not subject to a quota (oil, natural	
gas, coal)	gas, coal)	
Biomass	Biomass	

Form 4 should contain all savings in relation to conversions from one type of energy to another, and the total should correspond to the total on line 8 in form 1.

The forms are available from the Danish Energy Agency's website as Excel files [link].

2. Reporting of expenses

The collaborating bodies should in accordance with paragraph 14 on an annual basis report to the Danish Energy Agency the distribution of the industry's expenses in relation to form 5.

Form 5: Distribution of the industry's expenses

		%
1.	Network or distribution companies' total expenses	100%
2.	Percentage for administration	
3.	Percentage for external operators via direct agreements between a network or distribution company and/or its consolidated companies	
4.	Percentage for subsidies directly to the end user from a network or distribution company and/or its consolidated companies	
5.	Percentage for purchasing of realised energy savings from another network or distribution company	
6.	Percentage for realisation in a network or distribution company and for agreements with consolidated companies (section 1 minus sections 2, 3, 4 and 5)	

In connection with evaluations, cost analyses et cetera, the information in the form should be made available for the individual companies, cf. section 13.11.1.

3. Reporting of completed but not transferred energy savings

In accordance with section 13.3.3 of the agreement, the individual collaborating bodies should report to the Danish Energy Agency how many savings are completed but not transferred. This reporting should occur in connection with with the filing of the industry's reporting of the realised energy savings, that is, no later than April 1st.

Form 6: Completed but not transferred energy savings

Collaborating body	Non-transferred savings
	TJ

4. Reporting of reported savings that meet the savings goal after December 31st, 2018

In accordance with section 15.8.1 of the agreement, the collaborating body reports an overview of the companies that have reported energy savings amounting to more than their goal up until December 31st, 2018 as well as these companies' goals for 2016 and 2017.

This reporting should be done to the Danish Energy Agency 2 months after having entered into the agreement, that is, no later than March $1^{\rm st}$, 2017.

Form 7: Overview of companies, their reporting and their goals in 2016 and 2017

Company	Reported savings in excess of the company's goal as of December 31st, 2018	The company's total goals in 2016 and 2017 TJ

5. Reporting of sold reported savings

In accordance with section 15.8.3 of the agreement, network or distribution companies that sell an already reported energy saving should report the sold amount.

This reporting should be done in connection with the industry's reporting of the realised energy savings, that is, no later than April 1^{st} .

Form 8: Overview of companies' sales of reported savings

Company	Sales of reported savings
	TJ

Appendix 6:

Overview of dates of commencement for the individual paragraphs of the agreement $% \left(1\right) =\left(1\right) \left(1\right)$

The Technical Working Group has unanimously adopted the following concerning the commencement for the individual paragraphs of the agreement. Up until the dates of commencement below, the guidelines in the energy saving agreement of November 13^{th} 2012 will apply.

Paragraph	Commencement date
1	January 1st, 2017
2	January 1st, 2017
3	January 1st, 2017
4	January 1st, 2016
	The guidelines for the indexing of the oil companies' energy savings goals are to be agreed no later than May 1^{st} , 2017
5	January 1st, 2017
6	January 1st, 2017
7	January 1^{st} , 2017, but the requirement for there also being a written prior agreement for projects under 20 MWh does not apply until April 1^{st} , 2017
	Agreements between network and distribution companies and operators must be updated in accordance with the new guidelines not later than April 1st, 2017.
8	January 1^{st} , 2017, but sections 8.3.1, 8.5.1 and 8.6.1 do not apply until April 1^{st} , 2017.
9	January 1st, 2017
	When calculating the statement based on standard values, the prioritisation and conversion factors in the agreement of November 13th should be used until the publication of a version of the standard values catalogue in which the new factors are incorporated.
10	January 1st, 2017
	However, section 10.3.3, which is related to section 11.8.1, does not apply until April 1^{st} , 2017.
	Agreements between network and distribution companies and operators must be updated in accordance with the new guidelines not later April 1st, 2017.

11	April 1st, 2017
12	The total quality assurance system, cf. section 12.1, must be implemented and must be applied no later than July 1st, 2017. Quality controls, cf. section 12.4, and audits, cf. section 12.5, for 2017, should include the effort throughout 2017. By July 1st 2017, companies must report the results of audits of the effort in 2016 to the Danish Energy Agency via the collaborating bodies in a special template, which will reflect the guidelines of the Energy Conservation Agreement of November 13th 2012. The cross-referencing of cases, cf. section. 12.10, must as a minimum include cases that are agreed on after April 1st, 2017.
13	January 1 st , 2017 For savings, which are finalised up until April 1 st , 2017, it is accepted that the new divisions in reporting form 2 cannot be fully complied with.
14	January 1st, 2017
15	January 1st, 2017