

Overview of DHC Legislative Framework

Country

Germany

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
1	Combined Heat and Power Act (KWKModG)	Act	Parliament	Existing

Legislative Framework

Energy law

Heating is addressed in the form of a premium (paid for by electricity customers) for new and extended heating networks.

Purpose of the Legislation

Why was it introduced?

Taken directly from the Act (unofficial translation by AGFW):

“The purpose of the Combined Heat and Power Act is to contribute to the objective of increasing the share of electricity produced in combined heat and power plants in the Federal Republic of Germany to 25 % by protecting for a restricted period, modernising and constructing new combined heat and power plants (CHP plants), supporting the launch of fuel cells on the market as well as promoting the construction of new and expanding existing heat networks which supply heat from combined heat and power plants, in the interests of saving energy, environmental protection and achieving the government's climate protection targets.”

As a basic instrument the Combined Heat and Power Act obliges grid operators to connect CHP plants to their grid and give priority to buying electricity from cogeneration. A similar priority exists for electricity from renewable energy sources, therefore the Combined Heat and Power Act clarifies that both these obligations are equal before the law.

For electricity from cogeneration a premium is paid by the grid operator on top of the market price for electricity or the price the CHP plant operator achieved by marketing the electricity from cogeneration himself. By means of a management system the costs for this premium are shifted towards and divided upon all electricity customers. The premium is granted for a limited time only and serves to offset higher investment costs for CHP plants in comparison to condensing power plants.

In order to produce electricity from cogeneration sufficient heat sinks are needed. In order to reach the target of 25 % of electricity from cogeneration the government realised, that incentives had to be granted for opening up new heat sinks. Therefore the aforementioned premium now applies to new and extended heating networks as well, if they are supplied mainly by heat from cogeneration. The premium is one Euro per metre of route for each millimetre of the nominal diameter of the newly-build heating pipe. The premium may not exceed 20 % of the investment cost of the new or extended network, or five million Euros per project.

When was it introduced?

The amended Combined Heat and Power Act came into force on 1 January 2009.

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p><u>For which target groups?</u> The target groups are CHP plant operators and heating network operators.</p> <p><u>Which activities do you aim to stimulate?</u> In general the Act tries to stimulate the production of electricity from cogeneration. And in order to stimulate the production it also aims to stimulate the creation of additional heat sinks by incentivizing the building of new and the extension of existing heating grids.</p> <p><u>What results does it expect?</u> The result is 25 % of electricity from cogeneration by 2020. That translates to almost doubling the current share of electricity from cogeneration of 13 %.</p> <p><u>Are there any imminent changes or review expected?</u> Changes initiated by the association for DHC and CHP, AGFW and the DH industry were already put into effect during the course of 2009. The Act now clarifies that the premium for building new and extending existing heating grids also comprise the “consumer outlet”, meaning the part of the heating grid which connects the actual heating grid to the customer installation. This was questioned by the administration and was therefore clarified by the legislative bodies. An interim audit is foreseen for 2011, involving the Federal Ministry for the Economy and Technology, in conjunction with the Federal Ministry for the Environment, Nature Protection and Reactor Safety and the involvement of German industrial and energy industry associations. The interim audit will deal with the development of electricity from cogeneration in Germany, particularly in respect of the achievement of the energy and climate policy objectives of the federal government, the conditions for cost-effective operation of CHP plants and the annual premium payments, taking past and emergent developments into consideration.</p> <p><u>Are there aspects which the DHC industry believes need review?</u> In general the DH industry is satisfied with what has been achieved with the amendment of the Act.</p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
2	Act on the promotion of renewable energies in the heat sector (EEWärmeG)	Act	Parliament	Existing

Legislative Framework

Heat law

III. SUPPORT MEASURES FOR DHC

Country

Germany

Purpose of the Legislation

Why was it introduced?

Taken directly from the Act (unofficial translation by the Federal Ministry for the Environment, Nature Protection and Reactor Safety):

“The purpose of the Act is to facilitate sustainable development of the energy supply and promote the further development of technologies for the generation of heat from renewable energies, especially with a view to climate protection, efficient use of fossil resources and the reduction of import dependence. In order to fulfil this purpose while maintaining economic feasibility, the aim of this Act is to contribute to increasing the renewable energies' share in final energy consumption for heat (space heat, cooling and process heat and hot water) to 14 percent by 2020.”

The basic instrument is an obligation to use energy from renewable sources to a certain extent in newly built buildings (or existing buildings if the federal states so desire, see below). District Heating is not considered a renewable energy source per se but if the heat is produced by a substantial share of renewable energy sources, by a share of at least 50 % of CHP or a combination of both District Heating is considered an alternative measure and the obligations to use renewable energy sources deemed to be met.

When was it introduced?

The amended Act came into force on 1 January 2009.

For which target groups?

The Act targets owners of newly built buildings. The federal states are empowered to extend the scope of the Act to cover existing buildings as well.

Which activities do you aim to stimulate?

Saving fossil fuels and substantially reduce emissions of harmful greenhouse gases by significantly increasing the share of renewable energy sources or alternative measures used for meeting the heat demand of buildings.

What results does it expect?

Increasing the share of renewable energy sources in the final energy consumption for heat to 14 %.

Are there any imminent changes or review expected?

A review could incorporate potential changes that might be involved with the transformation the Directive 2009/28/EC into national law. An expert report on the subject deemed the system as an appropriate measure in terms of the transformation of the RES Directive. From this legal perspective, the system of acknowledging District Heating based on fossil CHP as an alternative measure for the obligatory use of renewable energy sources does not collide with the regulations required in the RES Directive. Certain other regulations of the RES Directive may need to be transformed into national law though and therefore may prompt a review.

Are there aspects which the DHC industry believes need review?

The DH industry is in general satisfied with what has been achieved, DH based on renewable energy sources and/or CHP as an alternative measure demonstrate that DH and renewable energy sources complement each other. The DH industry would welcome a clarification that District Heating must not necessarily cover the total thermal energy demand, consisting of heat and cold demand. This would leave room for district cooling solutions with central absorption chillers and on-site district cooling solutions based on a combination of absorption and compression chillers for peak demands.

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
3	Ordinance on general conditions for the supply of District Heating (AVBFernwärmeV)	Ordinance	Federal Ministry of Economics and Technology	Existing

Legislative Framework

Customer rights law

Purpose of the Legislation

Why was it introduced?

The “normal” framework for the relation between customers and companies was deemed inappropriate to handle the specific technical and economical features of District Heating supply on the one hand and customers’ needs on the other.

Therefore the ordinance sets a general framework for standard business conditions for the supply of District Heating to consumers. The supply of industrial customers with District Heating does not fall under the scope of the ordinance.

Customers which are connected to the District Heating grid have the right to be supplied according to the general conditions laid out in the ordinance if standard business conditions are being used. The District Heating utilities on the other hand can only deviate from these conditions with the explicit consent of the customer.

When was it introduced?

The ordinance was last amended on 9 December 2004.

For which target groups?

The ordinance targets both customers and companies.

Which activities do you aim to stimulate?

There is no certain activity that is supposed to be achieved. The ordinance aims to set a contractual framework to the benefit of both the customer and the development of District Heating.

What results does it expect?

Legal certainty and customer protection.

Are there any imminent changes or review expected?

A review is not expected at this point. However depending on how the negotiations on the proposed Directive on consumer rights turn out certain aspects may need to be revised or the ordinance as such be disestablished.

Are there aspects which the DHC industry believes need review?

The DH industry sees the ordinance as an important part of the legal framework; therefore no review is needed from their perspective. On the contrary, according to the DH industry preserving the ordinance and its regulations is important for the envisioned development of District Heating in Germany.

III. SUPPORT MEASURES FOR DHC				
Country			Germany	
#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
4	Act on granting priority to renewable energy sources (EEG)	Act	Parliament	Existing

Legislative Framework

Energy law

Purpose of the Legislation

Why was it introduced?

Taken directly from the Act (unofficial translation of the Federal Ministry for the Environment, Nature Protection and Reactor Safety):

“The purpose of this Act is to facilitate a sustainable development of energy supply, particularly for the sake of protecting our climate and the environment, to reduce the costs of energy supply to the national economy, also by incorporating external long-term effects, to conserve fossil fuels and to promote the further development of technologies for the generation of electricity from renewable energy sources. To achieve this purpose, this Act aims to increase the share of renewable energy sources in electricity supply to at least 30 percent by the year 2020 and to continuously increase that share thereafter.”

As a basic instrument the Act obliges grid operators to connect power plants producing electricity from renewable energy sources to their grid and give priority to buying their electricity.

For electricity from energy sources a feed-in tariff system is introduced by the Act. Grid operators are obliged to buy the electricity from renewable energy sources at this fixed tariff. Alternatively the power plant operator can sell his electricity directly on a month-to-month basis. By means of a management system the costs for these feed-in tariffs are shifted towards and divided upon all electricity customers. The tariff depends on the type of renewable energy source and is by far the highest for electricity from photovoltaic, although it only provides a very low amount of electricity overall.

When was it introduced?

The amended Act came into force on 1 January 2009.

For which target groups?

The Act targets power plant and grid operators.

Which activities do you aim to stimulate?

The use of more renewable energy sources in electricity production.

What results does it expect?

A share of 30 % of electricity from renewable energy sources by 2020.

Are there any imminent changes or review expected?

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p>A review on the feed-in tariff is debated especially because of the tariff for electricity from photovoltaic. The costs for the feed-in tariff have been climbing steadily and the very high tariffs for photovoltaic play a very big role in this. Both industry and consumer groups have been complaining about rising costs for electricity.</p> <p><u>Are there aspects which the DHC industry believes need review?</u></p> <p>There are two major flaws which put District Heating based on CHP at a disadvantage. The first is the so called “exclusivity-criterion”. Only installations that use renewable energy sources exclusively benefit from feed-in tariffs. That is a barrier to the most efficient use of biomass in bigger CHP plants.</p> <p>Another criterion that proves to be a barrier for the use of biomass in bigger CHP plants and therefore in District Heating as well is the limitation of the feed-in tariff system for the use of biomass to 20 MW.</p> <p>Therefore both the exclusivity criterion as well as the limitation for the system to 20 MW should be revised to encourage the efficient use of biomass in large scale CHP plants.</p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
5	Energy saving ordinance (EnEV)	Ordinance	Government	Existing

Legislative Framework

Building law

Purpose of the Legislation

Why was it introduced?

Buildings play a big role in combating climate change. In order to lift the potential the ordinance aims to reduce the primary energy demand of buildings to reduce use of resources and greenhouse gas emissions. The target is to reduce the primary energy demand for heating and warm water consumption by 30 % in the building sector.

The ordinance has a holistic approach on the building envelope, the systems engineering and the primary energy sources which are being utilised. Balancing the different measures is possible. For instance the obligations can be fulfilled by either using more insulation or more efficient systems engineering or primary energy sources. The system in general therefore reflects the efficiency benefits of District Heating based on CHP.

When was it introduced?

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p>The amended ordinance came into force on 1 October 2009</p> <p><u>For which target groups?</u> The ordinance targets building owners.</p> <p><u>Which activities do you aim to stimulate?</u> Further reduction of the primary energy demand of buildings.</p> <p><u>What results does it expect?</u> A reduction of the primary energy demand of buildings by 30 %.</p> <p><u>Are there any imminent changes or review expected?</u> In 2012 another review is planned, which aims to reduce the primary energy demand by another 30 %.</p> <p><u>Are there aspects which the DHC industry believes need review?</u> An analysis involving abatement costs for CO₂ would prove beneficial in this regard in order to maximize economic efficiency.</p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
6	Town and country planning act (BauGB)	Act	Parliament	Existing

Legislative Framework

Building law

Purpose of the Legislation

Why was it introduced?

To regulate building procedures.

In the development plan set by the local authorities so called environmental areas can be allocated and a ban on the incineration of certain materials can be issued. This includes fuels such as coal or wood.

When was it introduced?

Last amended on 31 July 2009.

For which target groups?

The Act targets property owners.

Which activities do you aim to stimulate?

No specific stimulation intended.

What results does it expect?

No specific results expected.

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p><u>Are there any imminent changes or review expected?</u> No significant changes are being expected at this moment</p> <p><u>Are there aspects which the DHC industry believes need review?</u></p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
7	Heating cost ordinance (HeizkostenV)	Ordinance	Federal Ministry for Economics and Technology; Federal Ministry of Transport, Building and Urban Development	Existing

Legislative Framework

Heat law

Purpose of the Legislation

Why was it introduced?

The ordinance was introduced to incentivize end-use energy savings.

It introduces obligatory metering of energy use of collective installations used for heating and warm water. In Germany a large share of people live in rented apartments. Usually the contractual relationship in regards to heat providers is between the landlord and the heat provider, not the individual users. Therefore the landlord pays the bills and has to pass on the costs for heating and warm water onto the individual owners.

In order to give an incentive to energy savings for each individual user the costs have to be split in such a way that it reflects their personal energy use. In general 70 % of the costs allocated towards the individual users have to be based on the actual energy consumption of said user. The remaining 30 % are to be allocated on certain criteria in order to reflect conditions the user has no influence on. These conditions include the position of the apartment. If the apartment is located on top of an apartment building, energy use will be higher due to the exposed nature of the apartment. The same holds true for apartments which have a lot of walls facing outside.

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p><u>When was it introduced?</u> The ordinance was last amended on 5 October 2009.</p> <p><u>For which target groups?</u> The ordinance targets building owners/landlords, contractors and to a certain extent District Heating utilities, if they bill the individual user in apartment buildings.</p> <p><u>Which activities do you aim to stimulate?</u> End-users should become more aware of the energy they are using and adapt their behaviour accordingly. This would then lead to a reduction in energy consumption.</p> <p><u>What results does it expect?</u> A reduction in energy consumption</p> <p><u>Are there any imminent changes or review expected?</u> No significant changes are planned for the immediate future.</p> <p><u>Are there aspects which the DHC industry believes need review?</u> The obligation to use a certain type of metering for warm water production for District Heating involves high costs for the landlords without providing any benefit in terms of the ordinance. The "AVBFernwärmeV" already contains an obligatory metering for heating and warm water consumption. Due to the technical framework for District Heating installations the specific type of metering were not foreseen in the past and thus provide technical problems as well. Although District Heating utilities are in most cases legally not obliged to pay these costs landlords still use their market power in order to force these costs upon the utilities.</p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
8	Energy taxation act (EnergieStG)	Act	Parliament	Existing

Legislative Framework

Taxation law

Purpose of the Legislation

Why was it introduced?

To tax different fuels.

Only energy products such as different fuels are covered by the scope of the Act. Electricity is taxed under a different law, the Electricity taxation act, which has no influence on District Heating directly. District

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p>Heating as such does not fall under the scope of the Act as well; it is only indirectly affected by the potential taxation on the fuels being used to produce the heat. There is the possibility of a tax refund for fuel being used in CHP (and in power plants in general). CHP plants are eligible for such a refund if their annual or monthly use efficiency is at least 70 %.</p> <p><u>When was it introduced?</u> Last amended on 17 July 2009.</p> <p><u>For which target groups?</u> The Act targets users of energy products.</p> <p><u>Which activities do you aim to stimulate?</u></p> <p><u>What results does it expect?</u></p> <p><u>Are there any imminent changes or review expected?</u> There is a discussion on the energy taxation at the moment. Certain loopholes in the energy taxation system are supposed to be fixed with the next revision.</p> <p><u>Are there aspects which the DHC industry believes need review?</u></p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
9	Allocation act 2012 (ZuG 2012)	Act	Parliament	Existing

Legislative Framework

Emission trading law

Purpose of the Legislation

Why was it introduced?

To set national greenhouse gas reduction goals and regulate the allocation of certificates.

District Heating as such is not directly covered by the scope of this Act. The production facilities for the production of District Heat however fall under the scope of the act as long as they fulfil the criteria, especially the size restriction of 20 MW.

The allocation system is based in general on a fuel-specific BAT benchmark. Every kWh of either electricity or heat is therefore allocated a comparable amount of certificates. The combined production of heat and

III. SUPPORT MEASURES FOR DHC	
Country	Germany
<p>electricity in CHP can therefore secure an advantage in this system because it uses fuel in the most efficient way to produce both electricity and heat. The allocation is based on the separate production of heat and electricity therefore CHP installations are allocated more certificates than they need in order to incentivize the use of fuel in CHP. Although not a very big incentive it at least pays attention to the greenhouse gas reduction potential of CHP, unlike the regulations set out in the directive on the third trading period.</p> <p><u>When was it introduced?</u> It came into force on 11 August 2007.</p> <p><u>For which target groups?</u> The Act targets all owners of a greenhouse gas emissions permit.</p> <p><u>Which activities do you aim to stimulate?</u> To reduce greenhouse gas emissions.</p> <p><u>What results does it expect?</u> A reduction of greenhouse gas emissions.</p> <p><u>Are there any imminent changes or review expected?</u> A review is necessary since the Act only covers the second trading period until 2012. In the third trading period under the new directive the system of emissions trading is fundamentally changed, therefore the Act needs either a revision or will be replaced by a new act altogether.</p> <p><u>Are there aspects which the DHC industry believes need review?</u> District Heating is part of the climate solution, not part of the climate problem. Especially District Heating based on CHP helps reducing primary energy use and greenhouse gas emissions to a great extent. But instead of benefitting from the system of emissions trading District Heating is put at a disadvantage in comparison to the competition on the heating market, which is not part of the emissions trading system due to the size restriction of 20 MW. This was cushioned through the use of the aforementioned double benchmark system but will have more negative effects within the third trading period.</p>	

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
10	Price clause act	Act	Parliament	Existing

Legislative Framework

Contractual law

III. SUPPORT MEASURES FOR DHC

Country

Germany

Purpose of the Legislation

Why was it introduced?

To ban price clauses based on the price or value of other goods or services. There are certain exceptions from this rule. One includes price clauses in contracts on the supply of District Heating based on the AVBFernwärmeV.

When was it introduced?

Last amended 25 October 2008.

For which target groups?

This Act targets users of price clauses.

Which activities do you aim to stimulate?

What results does it expect?

Are there any imminent changes or review expected?

No significant changes are expected in the immediate future.

Are there aspects which the DHC industry believes need review?

Template II

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
11	Municipal codes	Act	Parliament	Existing

Legislative Framework

Municipal law

Purpose of the Legislation

Why was it introduced?

All municipal codes in Germany enable municipalities to enforce mandatory heat planning for certain areas of their territory through byelaws. In these areas all property owners are obliged to connect their buildings to the District Heating grid and use District Heating exclusively as a means of heating. Most municipalities making use of mandatory heat planning incorporate exceptions for heating based on renewable energies

like solar thermal heating into their byelaws although it is not necessary from a legal standpoint. If a municipality uses mandatory heat planning for the District Heating supply it must fulfil certain criteria and secure a sufficient control over the District Heating utility.

It has now been clarified by the EEWärmeG that municipalities can choose to introduce mandatory heat planning for global climate and environmental policy reasons. It is not necessary to refer to the local climate or environment as a justification.

When was it introduced?

The different municipal codes were introduced at different times.

For which target groups?

The codes target municipalities.

Which activities do you aim to stimulate?

Initial investments necessary for District Heating supply are high due to the infrastructure needed on top of the production facilities. The heat can only be delivered to customers living in the proximity of the production facility, therefore effectively limiting potential customers. Because of these circumstances investors can be shied away from investing in the technology. In order to deliver a stable environment for investments, offsetting the initial investment costs needed, mandatory heat planning can be used to secure District Heating supply for certain areas. Therefore the legislation serves as a toolset for municipalities to secure investments in District Heating, especially in areas which have not yet been connected to a District Heating grid.

What results does it expect?

There are no quantified results expected.

Are there any imminent changes or review expected?

Since there was already a clarification on the subject of mandatory heat planning in the aforementioned EEWärmeG, no immediate review is expected.

Are there aspects which the DHC industry believes need review?