

Berlin, 20 December 2013

**Communication
to the European Commission
from the Government of the Federal Republic of Germany**

Subject: Transposition of the cogeneration-related provisions of the EU Energy Efficiency Directive (2012/27/EU) of 25 October 2012

Specifically: Notification of use of the possibility of exempting projects from a mandatory cost-benefit analysis in accordance with Article 14(6) of the Directive

The Federal Government has the honour to inform the European Commission as follows in the above matter:

I.

Article 14(5) and (7) of the Directive basically obliges Member States to impose a mandatory cost-benefit analysis for the application of cogeneration in the case of the project types listed in Article 14(5)(a) to (d) by 5 June 2014. This concerns in particular the new building and substantial refurbishment of electricity generation installations and industrial installations with an input of more than 20 MW and the new building of certain district heating or cooling networks. The analysis focuses on whether the installations concerned can also be economically operated for high-efficiency cogeneration and whether heating and cooling demand in a network could also be covered by high-efficiency cogeneration.

According to Article 14(4), second subparagraph, of the Directive, however, there is no obligation to introduce such requirements for individual projects in so far as a potential and cost-benefit analysis carried out for the Member State in accordance with Article 14(1) and (3) shows that there is no economically exploitable potential for the application of cogeneration. Under Article 14(1) of the Directive, Member States have to notify their analyses to the Commission by 31 December 2015. The Federal Government has started its work on this and is currently preparing the foundations for such an analysis, though the results will not be available before 5 June 2014. However, judging by the data already available the Federal Government considers that in principle Germany has a potential for the further development of cogeneration and therefore intends to

transpose the requirements of Article 14(5) and (7) of the Directive.

II.

After the Bundestag elections in September 2013 the Federal Government began drafting a Bill specifically to transpose the provisions of Article 14(5) and (7) of the Directive. It has not yet completed this work, in which it also intends to include the exemptions from the mandatory cost-benefit analysis for individual projects that Article 14(6) of the Directive allows:

1. Exemption of peak load and back-up installations (paragraph 6(a))

Peak load and back-up electricity generating installations which operate under 1500 operating hours per year as a rolling average over a period of five years are to be exempted from the obligation to carry out a cost-benefit analysis for the application of cogeneration.

The conversion of power supply to a largely renewables-based system will continue to need suitably flexible conventional installations in order to regulate the fluctuating supply from renewable energy sources. These installations achieve lower operating hours with increasing shares of renewable energy sources in the system.

In order to check compliance with the criterion of not exceeding the limit of 1500 operating hours per year as a rolling average over a period of five years, the plant operator will be required to produce supporting documents. In particular, during the planning permission procedure suitable proof will be sought, for example in the form of an expert opinion or an auditor's report, that the economic calculation of the installation is based on operating hours scenarios that are below the given threshold.

2. Exemption of nuclear power installations (paragraph 6(b))

Germany has decided to stop using nuclear for commercial energy production by the end of 2022. Nuclear power installations still in operation are gradually being shut down. In the time left until 2022 it may, however, be necessary to perform upgrades on the basis of modification permits. As a precaution, therefore, nuclear power plants will be released from the obligation to carry out a cost-benefit analysis for the application of cogeneration.

3. Installations with a CCS capability (paragraph 6(c))

Installations that need to be located close to a geological storage site for CO₂ separation and compression are to be exempted from the mandatory cost-benefit analysis for the application of cogeneration. In the process of granting planning permission for the plant the authorities check whether the relevant conditions are met. This is without prejudice to § 12 of the Thirteenth Ordinance on the Implementation of the Federal Immission Control Act (Ordinance on Large Combustion Plants and Gas Turbine Plants – 13. BImSchV).

4. Industrial installations and networks in accordance with Article 14(5)(c) and (d)

In accordance with Article 14(6), second subparagraph, of the Directive, thresholds are to be laid down in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks and by this means projects for industrial installations and networks in accordance with Article 14(5)(c) and (d) of the Directive are to be exempted from the mandatory cost-benefit analysis for the application of cogeneration and for the utilisation of waste heat.

For this it is intended to create a regulation governing thresholds for the available useful waste heat, the demand for heat and the distance from the installation to the nearest infeed point to the district heating or cooling network.

To this end, first of all thresholds will be established for the available useful waste heat or the demand for heat. Only where there is sufficient useful waste heat coupled with a correspondingly high heat demand does cogeneration or waste heat utilisation come into consideration for a particular project. One possible criterion for determining the useful waste heat is the size of installation above which the Directive provides for a mandatory cost-benefit analysis (total thermal input of 20 MW). The threshold for the useful waste heat could therefore be set at 10 MW.¹ The same would apply *mutatis mutandis* to the heat demand. For a useful waste heat of 10 MW only networks with a commensurate total heat demand would come into consideration for ensuring an economic heat offtake.

Furthermore, other thresholds will be set for the distance from the installation to the nearest infeed point on the district heating or cooling network. The criterion for determining this distance is the economically feasible line length as a function of the efficiency level of the heating network specifically concerned.

To determine the economically feasible line length, the additional revenues the planned installation

¹ Assumption: about half of the total thermal input is available for the offtake of useful waste heat; overall

is able to achieve by heat offtake or by the utilisation of additional waste heat are to be set against the costs of the investment in expanding the heating network. This is done by calculating the differential costs between the specific costs of waste heat and the specific costs of conventionally produced heat relative to the costs of offtake and connection to the network.

Furthermore, the present efficiency of the particular network concerned dictates the scale of the efficiency increase possible by means of cogeneration or feeding in additional waste heat. This is derived from Article 2 point 41 of the Directive, according to which a district heating or cooling system is considered efficient in particular if it uses 75% cogenerated heat. From this it can be worked out how much additional heat has to be fed into the network in order to reach this level and how many hours the installation has to run to achieve this, in order to calculate the profitability of the investment.

The economically feasible line lengths calculated taking into account the maximum heat supply efficiency increase achievable in each case form the distance thresholds.

The conclusion is that even in the case of a potentially available useful waste heat and a corresponding heat demand of more than 10 MW there is no obligation to carry out a cost-benefit analysis if the installation to be assessed for a network construction project or a planning permission procedure is located further away from the nearest infeed point than the relevant distance threshold.