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**Subject: State aid SA.36518 (2016/NN) – Poland**  
**– Certificates of origin for high-efficient co-generation operators**  
**(Świadectwa pochodzenia dla wytworców energii w wysokosprawnej**  
**kogeneracji)**

Sir,

**1. PROCEDURE**

- (1) By electronic notification of 11 April 2013, Poland notified, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU), the above-mentioned measure. The Commission requested additional clarifications from the Polish authorities by letters dated 12 June 2013, 18 September 2013, 16 December 2013, 16 June 2014, 19 November 2014, 26 May 2015 and 8 January 2016, complemented by e-mails sent on 3 February 2015 and 3 March 2016. The replies of the Polish authorities were submitted on 18 July 2013, 14 October 2013, 7 February 2014, 14 April 2014, 15 July 2014, 19 September 2014, 27 February 2015, 26 August 2015, 14 September 2015, 16 September 2015, 5 October 2015, 20 October 2015, 4 November 2015, 14 January 2016, 14 March 2016 and 29 March 2016. The case was also discussed in several meetings between the Polish authorities and the representatives of the Commission.
- (2) The notification procedure was suspended at the request of the Polish authorities between 25 March 2014 and 14 April 2014.

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## 2. DETAILED DESCRIPTION OF THE MEASURE

### 2.1. Objective

- (3) The primary objective of the notified measure is the achievement of energy efficiency through financial support of high efficient co-generation of heat and power (CHP). According to the Polish authorities, the scheme will improve the natural environment, in particular air quality, and result in primary energy savings. By producing both electricity and heat together, energy losses during the production are minimised, which translates into a reduction in the amount of greenhouse gases emitted into the atmosphere.
- (4) The importance of high-efficiency cogeneration for the EU energy strategy, in particular in terms of significant potential for primary energy savings, has been recognised by EU legislation on energy efficiency, laid down in Directive 2004/8/EC<sup>1</sup> and Directive 2012/27/EU<sup>2</sup>. Pursuant to both Directives<sup>3</sup> cogeneration is high efficient if it provides primary energy savings of at least 10% compared with the references for separate production of heat and electricity.
- (5) In 2009, Poland adopted a strategy paper *Poland's Energy Policy until 2030*, which emphasised the role and importance of environmental protection, to be achieved by *inter alia* energy efficiency measures, including those aimed at doubling the amount of electricity produced from high-efficiency cogeneration by 2020, compared to production in 2006.
- (6) The share of electricity production from high efficient CHP in Poland amounted to 14.33% in 2014 and resulted in primary energy savings of 24.7 MWh and CO<sub>2</sub> reduction of 6.96 million tonnes.

### 2.2. Legal basis

- (7) The national legal basis for support of high efficient CHP is the Act of 10 April 1997 on Energy Law<sup>4</sup>, as subsequently amended, and the following secondary legislation:
  - Regulation of the Minister of the Economy and Labour of 9 December 2004 relating to the detailed scope of obligations to purchase combined electrical power generated with heat<sup>5</sup>,
  - Regulation of the Minister of Economy of 26 September 2007 relating to the manner of calculating data expressed in the application requesting the issue of a certificate of origin from cogeneration and the detailed scope of

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<sup>1</sup> Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC, OJ L 52, 21.2.2004, p. 50.

<sup>2</sup> Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, OJ L 315, 14.11.2012, p. 1.

<sup>3</sup> Annex III and Annex II respectively.

<sup>4</sup> Articles 91 and 9a.

<sup>5</sup> Journal of Laws 2004, No 267, item 2657.

obligations of obtaining and presenting these certificates for redemption , the substitution fee and the obligation to approve data on the amount of power produced through high-efficiency cogeneration<sup>6</sup>,

- Regulation of the Minister of Economy of 26 July 2011 on the method of calculating data provided in the application for a certificate of origin from cogeneration and the detailed scope of the obligation to obtain these certificates and present them for redemption or pay the substitution fee and the obligation to confirm the data on the amount of electricity produced from high-efficiency cogeneration<sup>7</sup> (the 2011 Regulation)<sup>8</sup>.

### 2.3. Beneficiaries

- (8) Beneficiaries are producers of electricity and heat in high efficient CHP plants located in Poland. Three categories of beneficiaries are eligible under the scheme and receive the following types of certificates of origin<sup>9</sup> for cogeneration (CHP certificates), depending on the source of fuel or capacity of the CHP plant:
- Yellow certificates, granted to units with a capacity of up to 1 MW (irrespective of the fuel used) and units fired by natural gas (irrespective of the installed capacity);
  - Purple certificates, granted to units fired by methane released and captured during underground mining works in operating hard coal mines, closed mines or mines under liquidation (so-called mine gas), or in units fired by gas produced from biomass (so-called biogas);
  - Red certificates, granted to the remaining units, including fired or co-fired by hard coal, heating oil and biomass, with a capacity above 1 MW.
- (9) In the years 2008-2010, the share of electricity produced from gas-fired cogeneration or in a CHP plant with capacity below 1 MW, covered by the yellow certificates system, amounted to approx. 12% in the total CHP electricity. The remaining approx. 88% was generated in other cogeneration units covered by the red certificates system. The share of cogeneration using methane gas from mines and biomass gas did not exceed 1% in 2010, amounting to only 101.1 GWh.<sup>10</sup>

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<sup>6</sup> Journal of Laws 2007, No 185, item 1314.

<sup>7</sup> Journal of Laws 2011, No 176, item 1052.

<sup>8</sup> The Commission notes that as of 1 January 2015 this regulation was replaced by the Regulation of the Minister of Economy of 10 December 2014 on the method of calculating data provided in the application for a certificate of origin from cogeneration and the detailed scope of the obligation to obtain these certificates and present them for redemption or pay the substitution fee and the obligation to confirm the data on the amount of electricity produced from high-efficiency cogeneration (the 2014 Regulation) - Journal of Laws 2014, item 1940.

<sup>9</sup> The certificates of origin are granted for electricity produced from high-efficiency cogeneration. They are tradable independently from the electricity and the State creates a market for them by imposing on certain entities an obligation to acquire such certificates. The certificates of origin should be distinguished from the "guarantees of origin" (*gwarancje pochodzenia*) mentioned in Directive 2012/27/EU.

<sup>10</sup> See two subsequent reports on progress made in increasing the share of electricity produced from high-efficiency cogeneration in the total electricity production in Poland in 2007 and 2011, published respectively in Monitor Polski No 1/2008, item 12 and Monitor Polski 2012, item 108.

- (10) All high-efficient CHP electricity generators that (i) hold a relevant concession valid for the entire duration of the support system, (ii) submit an application to the President of the Polish Energy Regulatory Office (*Urząd Regulacji Energetyki, URE*) and (iii) meet the formal and measurement requirements, are entitled to obtain certificates of origin. The certificate confirms the generation of a specific amount of energy from a given source. Both new and existing CHP producers can apply for the support under the scheme.

#### **2.4. Functioning of the system of certificates of origin for cogeneration**

- (11) Poland introduced the support scheme for generators of electricity from cogeneration, based on tradable certificates of origin, in 2007. President of URE allocates CHP certificates to operators of CHP generation units, based on their application and electricity production measurements performed by the network operator. The certificates are allocated to CHP generators for free and the number of granted certificates of origin is directly proportional to the amount of generated electricity: one certificate per MWh of produced CHP electricity. The beneficiaries submit their application *ex post* after the electricity production, either on annual basis or covering periods shorter than one year. Information on electricity production volumes is subject to confirmation by the relevant network operators. There are no yearly limits for the issuance of certificates or volumes of CHP electricity covered by the CHP certificates support scheme.
- (12) At the same time, the system requires certain entities to purchase and redeem a specific number of CHP certificates, in proportion to the amount of power supplied to end users (in case of electricity distributors) or purchased (for all other entities, in case of industrial users – electricity purchased for own use), with the President of URE, thereby creating a demand for CHP certificates. The undertakings obliged to redeem CHP certificates include the following groups:
- industrial users who consumed not less than 100 GWh of electricity whose cost represented not less than 3% of the value of their production in the calendar year preceding the year in which the obligation to obtain certificates and present them for redemption is fulfilled,
  - energy companies engaged in electricity generation or trading which sell this energy to end customers (this group includes the majority of the obliged entities),
  - end customers other than industrial users who are members of a commodity exchange or members of a market organised by an entity operating a regulated market in Poland as regards transactions entered into on their own behalf on the commodity exchange or the market organised by this entity,
  - commodity brokerage houses or brokerage houses as regards transactions executed at the request of end customers other than industrial users on a commodity exchange or a market organised by an entity operating a regulated market in Poland.
- (13) The obligation to redeem CHP certificates is imposed for duration of one calendar year. However, the final settlement/redemption date has been initially set at the end of March the following year, later being prolonged until the end of June of the

following year (for the purpose of obligation for the previous year). In order to incentivise electricity generation from CHP and reach the target of doubling CHP electricity generation by 2020 (compared to 2006), the total volume of this obligation is set at a level accordingly higher than the supply of electricity produced from CHP. The level of the redemption obligation should guarantee appropriate contribution of high-efficient cogeneration in the Polish energy mix, in

line with the assumptions of the Polish energy policy until 2030. The scope of the CHP certificates obligation has been determined as follows:

**Table 1 – Certificate obligation per year and technology**  
[% of the total volume of electricity sold]

	Yellow	Red	Purple*
2007	0.8	16.5	-
2008	2.7	19.0	-
2009	2.9	20.6	-
2010	3.1	21.3	-
2011	3.3	22.2	0.4
2012	3.5	23.2	0.6
2013	n.a.	n.a.	0.9
2014	3.9	23.2	1.1
2015	4.9	23.2	1.3
2016	6.0	23.2	1.5
2017	7.0	23.2	1.8
2018	8.0	23.2	2.3

\* Includes both mine gas and biogas.

- (14) As a result of the CHP certificates redemption obligation, the CHP certificates obtained by CHP producers are subject to trade between CHP generators and the entities obliged to redeem them. The trading takes place either on the Polish Power Exchange SA (PPE, *Towarowa Gielda Energii SA (TGE)*) or through bilateral contracts. This allows electricity generators from CHP to gain additional revenue. PPE also keeps a register of CHP certificates.
- (15) In line with the provisions of the Polish Energy Law, property rights arising from CHP certificates are transferable and constitute an exchange-traded commodity referred to in the Act on Commodity Exchanges. The property rights connected with CHP certificates arise when CHP certificates are first recorded in the recording account contained in the register of certificates of origin maintained by the PPE, on the basis of information relating to those certificates provided by URE. The transfer of property rights arising from CHP certificates takes place upon making an appropriate entry in the register. Subsequently, at the request of the owner of the certificate (i.e. the electricity supplier obliged to redeem a certain number of certificates), URE redeems these certificates entirely or in a part, by means of a decision. Property rights arising from a certificate of origin expire upon its redemption.
- (16) The vast majority of CHP certificates' trade transactions (around 90%) involve bilateral contracts, which can be settled through the PPE as so-called off-session transactions, or outside. In the first scenario, the payment of the price for bilaterally traded CHP certificates is made *via* PPE and the exchange clearing house (*gieldowa izba rozliczeniowa*) IRGiT (*Izba Rozliczeniowa Gied Towarowych SA*).

In the second scenario, the payment of the price is made exclusively between the parties to the transaction and outside PPE. In both cases, PPE records the change of ownership of the particular CHP certificate accordingly on the registration account of the buyer and the seller in the special register of CHP certificates.

- (17) Instead of buying CHP certificates from electricity generators, electricity suppliers and other undertakings under redemption obligation can also pay a substitution fee to the account of the National Fund for Environmental Protection and Water Management (*Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej, (NFOŚiGW)* or the Fund<sup>11</sup>). They have a free choice between the redemption of CHP certificates or the payment of the substitution fee; they can also choose partial redemption combined with a payment of the substitution fee for the remaining part of the obligation. The funds received by NFOŚiGW from the substitution fee are used to finance various environmental protection measures, other than operational support for the generation of electricity from renewable energy sources and cogeneration.
- (18) Poland has not set any minimum or maximum price of the CHP certificates. The price is entirely driven by market forces, *i.e.* supply and demand. This applies to both types of purchase possibilities (*i.e.* via the PPE and in bilateral contracts). Indirectly, the maximum price is limited by the level of the substitution fee, as demand would not exist for certificates the price of which exceeds the substitution fee. The Polish authorities have explained that it has never occurred that the price of CHP certificates exceeded the price of the substitution fee (if the price of the CHP certificates would be higher than the substitution fee, the obliged entities would pay the substitution fee and stop buying the CHP certificates). On the other hand, according to data submitted by the Polish authorities, the price of the certificates has also never fallen to zero.
- (19) The amount of the substitution fee is determined by URE every year, based on the average market price of electricity, taking into account:
- the amount of electricity produced from high-efficiency cogeneration,
  - the difference between the costs of producing electricity from high-efficiency cogeneration and electricity wholesale market prices,
  - the level of electricity prices for end-customers and
  - the level of utilisation of available quantities of mine gas and biogas.
- (20) The amount of the substitution fee corresponding to yellow certificates can be determined in the range from 15% to 110% of the average market price of electricity, corresponding to the red certificates - in the range from 15% (later reduced to 5%) to 40% and corresponding to purple certificates – from 30% to

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<sup>11</sup> NFOŚiGW, together with the respective regional funds, is one of the pillars of the Polish system of financing environmental protection. The main task of the Fund is to make effective and efficient use of EU funds allocated for the development and modernization of environmental infrastructure in Poland. The source of NFOŚiGW's revenues are payments for economic use of the environmental and penalties for breaching environmental law. The activities of this fund are not within the scope of the notification.

120%. The substitution fee is calculated separately for each type of CHP certificate and published in the Bulletin of URE by the end of May of the preceding year.

- (21) Entities that fail to meet the obligation to redeem an appropriate number of certificates or to pay the substitution fee are imposed a financial penalty. The amount of the penalty payment is determined by URE. It depends mainly on the extent of the failure to comply with the obligation to present for redemption CHP certificates or to pay the substitution fee and the amount of the valid substitution fee. However, the given penalty cannot be lower than 130% of the unpaid substitution fee. Moreover, the amount of the financial penalty cannot exceed 15% of the income of the penalised undertaking corresponding to the previous fiscal year.
- (22) URE acts as a monitoring body of the system, which includes the following functions: issuance and redemption of certificates of origin, exercising control over the fulfilment of obligations by companies (in particular, checking whether they comply with their obligation to redeem CHP certificates) and fixing the amount of the substitution fee. A schematic overview of the Polish CHP certificates' system is presented in Annex I.

## **2.5. Financing of the support scheme**

- (23) The entities obliged to redeem CHP certificates can include the costs of the certificates purchase or the substitution fee in the electricity price paid by end-customers. Thereby they transfer the costs associated with the participation in the support scheme on final consumers, in proportion corresponding to the amount of energy consumed. In other words, the costs of the CHP certificates support system are included in each sold unit of electricity (MWh), irrespective of whether the energy has been produced domestically or imported. However, the costs of the CHP support system are not transferred onto the final consumers in heat tariffs.
- (24) The total costs of the support scheme are reflected in the electricity price for end-customers and constitute around 5% of the total price of 1 MWh of electricity.
- (25) Moreover, the 2011 and 2014 Regulations have stipulated the maximum level and method of reflecting the costs of obtaining and presenting for redemption CHP certificates and the substitution fee, as appropriate, in the calculation of electricity prices determined in the tariffs charged by electricity undertakings.
- (26) In order to address any potential discrimination of CHP electricity imports throughout the duration of the CHP certificates system and thus, ensure compliance with Articles 30 and 110 TFEU, Poland undertook to make investments into energy infrastructure that would benefit cross-border electricity flows, increasing Poland's import capacity.<sup>12</sup>
- (27) Poland has estimated the total amount of potential discrimination against imported RES and CHP electricity for the period 2005-2015, in the following steps:

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<sup>12</sup> This remedy covers both the certificates support system for electricity produced from renewable energy sources and the CHP certificates support system. The certificates support system for electricity produced from renewable energy sources was subject to a separate Commission's Decision in case SA.37345, adopted on 2 August 2016, not yet published. The investments proposed by Poland are described in detail in the respective decision.

- (a) Calculation of the average annual economic burden of RES and CHP for every unit of energy [MWh] consumed by end-users over the period 2005-2015. The resulting weighted average amount charged for the relevant period amounts to PLN 24.27/MWh;
  - (b) Determination of the Annual Cross-border Exchanges Agreed Graphics (UGWM) for each of the cross-border exchanges [MWh];
  - (c) Determination of the shares of CHP and RES in electricity production in countries with which Poland performs cross-border exchange (Germany, Czech Republic, Slovakia, Sweden) [%], based on Eurostat data;
  - (d) As a result of multiplication of the three values above for each year and each cross-border exchange, the total value of potential discrimination amounts to PLN 172 million.
- (28) Poland has committed to make investments into projects aimed at increasing the capacity of cross-border electricity exchanges, in particular on the Polish South-Western synchronous border, including a PLN 420 million investment into an additional internal line – double circuit 400 kV line Baczyzna – Plewiska (approx. 142 km). This line has not so far been recognized in PRSP and in the European Ten Years Network Development Plan (TYNDP 2014). Poland proposes to make this investment, as a remedy to potential past discrimination against imported RES and CHP electricity. The line will be implemented in the years 2016 – 2021 and it will allow an increase in cross border capacity over Polish synchronous cross section of 500 MW (export) and 1500 MW (import). The common effect of implementing the investments for increasing the transmission capacity on the Polish – German/Czech/Slovak border is 2000 MW (import and export).

## 2.6. Budget, duration and cumulation rules

- (29) Based on the volume of the obligation to redeem certificates and the prices of CHP certificates, Poland has estimated the potential annual expenditure of the system of CHP certificates, as presented in the table below.

**Table 2 – Estimated budget of CHP certificates support system per year**

Budget	<i>j</i>	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CHP red	<i>mln PLN</i>	160,8	401,7	443,3	571,5	635,7	359,7	0,0	145,7	297,3	297,3	297,3	297,3
CHP yellow		51,6	374,6	404,7	468,1	499,6	528,8	0,0	235,0	428,5	732,0	854,0	976,0
CHP purple						9,0	42,9	77,1	85,9	85,9	115,3	138,3	176,8

- (30) The system of yellow and red CHP certificates came into effect on 1 July 2007 and was initially set up for the duration of five and a half years, i.e. until 31 December 2012 (with the final settlement date for certificates redemption on 31 March 2013). The Polish authorities decided to reintroduce the CHP certificates system as of 30 April 2014 until 31 December 2018, with the final settlement date on 31 June 2019. Both new and existing CHP electricity generators can benefit from the reintroduced system of support. Despite the extension of the final settlement date by three months in the subsequent calendar year, the redemption of the certificates during this time is assigned to the obligation in the previous year.



- (31) The system of support in the form of purple certificates entered into force on 11 March 2010 and has a duration until 31 December 2018 (final settlement date on 30 June 2019).
- (32) Under the CHP certificates support system, the duration of the right to receive certificates, as well as the duration of the obligation to purchase and redeem certificates by the obliged entities, corresponds to the above duration of the system, as appropriate for the yellow, red and purple certificates. This means that if an installation acquires the right to receive CHP certificates at a given time, it continues to be eligible under the scheme throughout its entire duration. This right has not been cancelled by the temporary discontinuation of the CHP certificates support system in 2013 and partly in 2014 (i.e. until the re-introduction of the system on 30 April 2014). During this time, the producers continued to receive CHP certificates, but due to discontinuation of the redemption obligation for that period, the support did not take place in practice. Poland indicated that the duration of the system of yellow and red CHP certificates covers the period from 2007 until 2018, with an administrative break in 2013-2014.
- (33) In addition to the support under the system of certificates of origin for cogeneration, producers of electricity from co-generation can also benefit from regional investment aid and environmental investment aid, granted on the basis of schemes implemented under the Commission Regulation (EC) 1628/2006 of 24 October 2006 on the application of Articles 87 and 88 of the Treaty to regional investment aid<sup>13</sup> and the Commission Regulation (EC) 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty<sup>14</sup>.
- (34) Moreover, as of 11 March 2010<sup>15</sup>, a CHP installation may obtain in addition certificates of origin for renewable sources of electricity (RES certificates) with regard to the same unit of generated electricity. This concerns the specific situations of CHP units fired by biomass and biogas.<sup>16</sup> However, yellow, red and purple certificates cannot be cumulated with each other.

### **3. ASSESSMENT OF THE MEASURE**

#### **3.1. Existence of Aid**

- (35) Article 107 (1) TFEU provides that “any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods, shall, in so far as it affects trade between Member States, be incompatible with the common market”.

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<sup>13</sup> OJ L 302, 1.11.2006, p. 29

<sup>14</sup> OJ L 214, 9.8.2008, p.3

<sup>15</sup> Based on amendments to the Energy Law in 2010.

<sup>16</sup> Biomass-fired CHP plants may obtain red CHP certificates and RES certificates, whereas biogas-fired CHP plants may obtain purple or yellow CHP certificates and RES certificates.

- (36) Poland claims that the CHP certificates system is a market-based mechanism and does not involve state aid, in view of the lack of involvement of State resources. According to the Polish authorities, in the transactions concluded at PPE as well as in the bilateral contracts, there is no involvement of the state authorities whatsoever, neither in determining the price of the CHP certificates nor in the transactions or financial flows on PPE or between the parties, which implies that there is no State control over the resources and hence, no State aid.
- (37) In this context, the Polish authorities underline that trading of CHP certificates essentially takes the form of sale and purchase of property rights arising from them between private parties and without a State involvement. The entities involved in the system make independent business decisions in terms of the strategy on the market for trading the certificates. In the case of an over-supply of CHP certificates, the price falls and in the case of an over-demand, the price grows. If the supply of the certificates exceeds the market demand, they are not purchased by the Polish authorities (neither directly nor *via* an intermediary).
- (38) The Polish authorities take the view that only systems in which rights may be sold or auctioned by the State, and which lead to foregone revenues if awarded free of charge, may be treated as systems involving state aid. The Polish CHP certificates system does not have such characteristics. Moreover, the way in which financial resources are raised for the NFOSiGW (the substitution fee) and disbursed from it differs from the certificate systems associated with the establishment of appropriate funding, which were previously evaluated by the Commission, and as such it cannot affect the legal status of the Polish CHP support system.
- (39) Finally, the Polish authorities also point out that, when establishing the certificates system in 2007, they relied on the Commission's decision-making practice at that time, according to which such systems were not considered to constitute state aid. The Polish authorities notified the CHP certificates system for legal certainty, at the occasion of prolongation of the yellow and red certificates systems.
- (40) The Commission considers that the support to electricity produced in high efficient CHP installations granted by way of certificates constitutes State aid within the meaning of Article 107(1) TFUE.

*3.1.1. Advantage granted in any form whatsoever to certain undertakings*

- (41) The State grants certificates of origin to CHP producers for free. At the same time, the State creates a demand for such certificates by obliging certain entities to purchase them for the purpose of redemption with the State authorities. The CHP producers are able to sell the certificates on the market, thus obtaining additional revenue, which would not be available to them without the State intervention (i.e. without creating the market for certificates). This provides them with an economic advantage allowing them to cover part of the costs of CHP electricity production, which otherwise they would have to bear themselves.
- (42) Under the CHP certificates system, this economic advantage is only available to electricity producers from high efficient cogeneration. Thus, the support system has a selective nature.

### 3.1.2. *Granted by a Member State or through State resources*

- (43) Contrary to the position of the Polish authorities, the Commission considers that the Polish CHP certificates system does involve a transfer of State resources. First, by granting CHP certificates for free, while setting up a quota for their redemption by obliged entities and thereby creating a demand for those certificates, the State foregoes State resources. Secondly, the control exercised by the State over the financial flows between the CHP producers and the obliged entities proves that the support comes from State resources. The Commission has presented similar lines of reasoning in its previous decision-making practice, including the Romanian system of green certificates<sup>17</sup> and the Polish system of certificates of origin granted for producers of RES electricity<sup>18</sup>. In particular, the latter system of allocating and trading certificates is identical to the CHP support scheme under assessment, which the Polish authorities underlined at several occasions in their parallel submissions in both notification procedures.

#### 3.1.2.1. *The granting for free of CHP certificates*

- (44) The Polish CHP certificates system functions on the principle that the State grants the certificates to the producers of electricity from high efficient cogeneration (beneficiaries) for free. The State has also created a market for these certificates by imposing an acquisition obligation on certain entities comprised in majority of electricity suppliers.
- (45) Firstly, by giving certificates of origin for free to producers of high efficient cogeneration electricity, the State is actually providing them, for free, with intangible assets. Secondly, the certificates of origin can be traded on a specific market and by selling them to the obliged entities the beneficiaries obtain revenues.
- (46) In a judgement<sup>19</sup> from 8 September 2011, the Court of Justice observed that NOx emission allowances were tradable<sup>20</sup>, as (i) the State authorizes the sale of these allowances and (ii) it allows those undertakings which have emitted a surplus of NOx to acquire from other undertakings the missing emission allowances. This creates a market for the allowances. By making the allowances tradable, the State conferred on them a market value.
- (47) In the case of the Polish CHP certificates system, the market is created by the principles of the support system itself, i.e. the State imposes through legally binding provisions an obligation on certain entities to submit, at the end of the reporting period to the President of URE a certain number of CHP certificates (redemption obligation). Similar as in the NOx case, here the legal framework

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<sup>17</sup> SA.37177 – Romania - Amendments to the green certificates support system for promoting electricity from renewable sources, OJ C 343, 16.10.2015, p. 1.

<sup>18</sup> SA. 37345 – Poland – Polish certificates of origin system to support renewables and reduction of burdens arising from the renewables certificate obligation for energy intensive users, decision adopted on 2 August 2016, not yet published.

<sup>19</sup> C-279/08 P - Commission v Netherlands, EU:C:2011:551

<sup>20</sup> C-279/08 P - Commission v Netherlands, EU:C:2011:551, paragraph 88.

creates<sup>21</sup> certificates which, because of the demand created by the State and their tradable character, have an economic value.

- (48) The Court of Justice also found<sup>22</sup> that the emission allowances had the character of intangible assets provided by the State free of charge to selected undertakings. By conferring on the emission allowances the character of tradable intangible assets and by making them available to the undertakings concerned free of charge the State forgoes public resources.
- (49) The Commission considers that the same reasoning can be applied to the Polish CHP certificates system. The State has created tradable assets in the form of CHP certificates and made them available to producers of high-efficient cogeneration electricity. Further, the State has conferred an economic value on them by creating a genuine market for the CHP certificates with a demand stemming from the quota imposed on certain entities and by determining the substitution fee. Instead of selling the certificates or putting them up for auction, the State allocates the CHP certificates for free and thus it forgoes public resources.
- (50) In case of non-compliance with this redemption obligation, the entities are liable for a financial penalty. The financial penalty, established at 130 % of the effective substitution fee, aims to incentivise the obliged entities to purchase CHP certificates, and ensures therefore that there is a demand for those certificates.
- (51) In this respect, Poland argues that the CHP certificates simply ascertain the nature of the high-efficient cogeneration electricity and could not be sold or put for auction. However, the Commission notes that the CHP certificates are commodities with a value in themselves. Thus they do not only certify the origin of a certain type of electricity because the State has created here a quota obligation for CHP certificates whose non-fulfilment is sanctioned by an administrative fine. Therefore, in line with the conclusions of the Court of Justice in the case C-279/08 P - Commission v Netherlands, the Commission notes that the Polish State could have designed the system differently so that certificates are sold or auctioned.
- (52) The Commission considers that the above element alone suffices to conclude that the Polish CHP certificates system involves State aid, and Poland has been aware of this circumstance at least since 8 September 2011 when the judgement in the case C-279/08 P - Commission v Netherlands was rendered.

*3.1.2.2. The financing of the Polish CHP certificates system and the general control of the State over the financial flow between the parties*

- (53) The concept of "intervention through State resources" is intended to cover not only advantages which are granted directly by the State but also "*those granted through a public or private body appointed or established by that State to administer the aid*"<sup>23</sup>. In this sense, Article 107(1) TFEU covers all the financial means by which

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<sup>21</sup> See Section 2.4 above.

<sup>22</sup> C-279/08 P - Commission v Netherlands, EU:C:2011:551, paragraph 107.

<sup>23</sup> Judgement in Steinike & Weinlig v Germany, Case 76/78, EU:C:1977:52, paragraph 21; Judgement in PreussenElektra, C-379/98, EU:C:2001:160, paragraph 58; Judgement in Doux Elevage and Cooperative agricole UKL-ARREE, C-677/11, EU:C:2013:348, paragraph 26; Case Vent de Colère, C-262/12, EU:C:2013:851, paragraph 20; Sloman Neptune, joined cases C-72/91, C-73/91, EU:C:1993:97, paragraph 19.

the public authorities may actually support undertakings, irrespective of whether or not those means are permanent assets of the public sector<sup>24</sup>.

- (54) For the measure at hand the State establishes in detail through legally binding rules how the demand and supply of CHP certificates is formed, how the market for CHP certificates is organised, who can participate in it and how the financial flows are organised. The costs from the acquisition of CHP certificates by the obliged entities are passed on to final customers within the price of electricity sold and this is allowed by the allocable legislation.
- (55) Although the CHP certificates and, thus, the revenues obtained by the producers of electricity from high-efficient cogeneration are ultimately financed by end consumers, the mere fact that the advantage is not financed directly from the State budget is not sufficient to exclude that State resources are involved<sup>25</sup>. It results from the case-law of the Court that it is not necessary to establish in every case that there has been a transfer of money from the budget or from a public entity<sup>26</sup>.
- (56) The relevant criterion in order to assess whether the resources are public, whatever their initial origin, is that of the degree of intervention of the public authority in the definition of the measures in question and their methods of financing<sup>27</sup>. Hence, the mere fact that a subsidy scheme benefiting certain economic operators in a given sector is wholly or partially financed by contributions imposed by the public authority and levied on certain undertakings is not sufficient to take away from that scheme its status of aid granted by the State<sup>28</sup>. Equally, the fact that the resources would at no moment be the property of the State does not prevent that the resources might constitute State resources, if they are under the control of the State<sup>29</sup>, in particular when aid is granted by public or private bodies designated or established by the State<sup>30</sup>. The Court found State resources in case of funds financed through compulsory contributions imposed by State legislation when they were managed and apportioned in accordance with the provisions of that legislation<sup>31</sup>.
- (57) This has been confirmed by the Court in the *Vent de Colère* case<sup>32</sup> where the Court has also ruled that a mechanism for offsetting in full the additional costs imposed on undertakings because of an obligation to purchase wind-generated electricity at a price higher than the market price that is financed by all final consumers of electricity in the national territory, constitutes an intervention through State resources.

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<sup>24</sup> Judgement in *Doux Elevage*, EU:C:2013:348, paragraph 34, Judgement of 27 September 2012, *France v Commission*, T-139/09, EU:T:2012:496, paragraph 36, *Vent de Colère*, C-262/12, EU:C:2013:851, paragraph 21.

<sup>25</sup> Judgment of 12 December 1996, *Air France v Commission*, T-358/94, EU:T:1996:194, paragraphs 63 to 65.

<sup>26</sup> *Doux Elevage*, EU:C:2013:348, paragraph 34, *France v Commission*, EU:T:2012:496, paragraph 36; Judgement in *Bouygues Telecom v Commission*, C-399/10 P et C-401/10 P, EU:C:2013:175, paragraph 100; *Vent de Colère*, C-262/12, EU:C:2013:851, paragraph 19.

<sup>27</sup> *France v Commission*, EU:T:2012:496, paragraphs 63 and 64.

<sup>28</sup> *France v Commission*, EU:T:2012:496, paragraph 61.

<sup>29</sup> Judgment of 12 December 1996, *Compagnie nationale Air France v Commission*, T-358/94, EU:T:1996:194, paragraphs 65 to 67; *France v Commission*, C-482/99, EU:C:2002:294, paragraph 37; *Doux Elevage SNC*, EU:C:2013:348, paragraph 35.

<sup>30</sup> *Sloman Neptun*, EU:C:1993:97, paragraph 19.

<sup>31</sup> Judgement in *Italy v Commission*, 173/73, EU:C:1974:71, paragraph 16. Judgement in *Essent*, C-206/06, EU:C:2008:413, point 66.

<sup>32</sup> *Vent de Colère*, EU:C:2013:851.

- (58) In the light of those principles, the Commission has examined whether the financing of Polish CHP certificates system and the revenues of the producers of electricity from high efficient cogeneration stemming from their sale involves State resources.
- (59) In the case of the Polish CHP certificates system although the financial flows take place between private parties (high efficient cogeneration electricity-producers – obliged entities, in majority electricity suppliers – end consumers) they have to be considered as involving State resources because the State controls and manages them.
- (60) The network operators certify the amount of electricity produced by the beneficiaries. The President of URE issues and redeems CHP certificates, monitors if the quota obligation has been fulfilled by the obliged entities and sets the amount of the substitution fee.
- (61) The State designates in the legislation the entities obliged to redeem CHP certificates which are primarily generators and supply companies selling energy to end customers. They pass on the great part of the costs of the certificates to end customers through the electricity prices. This ensures that obliged entities (in particular, electricity suppliers) do not have to bear a financial burden for the purchase obligation in its entirety.
- (62) The State sets the level of the redemption obligation (CHP certificates quota) through regulations.
- (63) In case of no purchase of certificates the obliged entities must fulfil their quota obligation by paying the substitution fee. The amount of this fee is defined on the basis of a methodology set out by the Law and the President of URE calculates and publishes each year its amount.
- (64) Lastly, the non-compliance with the quota obligation is sanctioned with administrative penalties imposed by the URE President at the level set by the URE President on the basis of a methodology set out in the Ministerial Regulation.
- (65) On the basis of the above elements, the Commission considers that the obliged parties are administering the funds for the CHP certificates and the President of URE controls and monitors such funds, by issuing certificates, redeeming them, monitoring entities covered by the certification requirement (in particular monitoring if the obligation to redeem certificates has been fulfilled) and announcing the amount of the substitution fee.
- (66) It follows from the above that the Polish CHP certificates system and its financing involve State resources. The Commission observes in particular that the State can control, direct and influence the administration and the financing of certificates through generally applicable legal provisions and individual decisions used by the President of URE. The State has defined to whom the advantage is to be granted, the eligibility criteria and the level of support, but it has also influenced the financial resources to cover the costs of the support.
- (67) The CHP certificates represent a benefit granted from State resources only to high-efficient cogeneration electricity producers and therefore entail a selective advantage to such producers that would otherwise not be available to them. The

Polish CHP certificates system has been established and is regulated by way of legislative acts, being, thus, imputable to the Polish State.

### *3.1.3. Distortion of competition and effect on trade*

- (68) The CHP certificates support scheme favours electricity producers from high efficient CHP as compared to electricity producers from other sources. Based on legislation adopted in 2005, full liberalisation of electricity market – defined as a right of all customer to choose their electricity supplier – took place on 1 July 2007. On the same date, the CHP certificates system entered into force in Poland. Thus, the support granted to electricity generators from CHP can distort or threaten to distort competition between electricity producers.
- (69) An important part of the beneficiaries under the CHP support scheme distribute heat through district heating networks. The district heating sector is characterised by its industry-specific process, in which generated and transmitted energy must be consumed almost simultaneously. Due to the need to maintain appropriate parameters, heat can be transmitted over relatively short distances. Therefore, the district heating sector directly involves mostly local markets. However, since the heat production market is liberalised and other energy carriers – such as gas and electricity – can substitute heat, the support in favour of the CHP plants can still distort or threaten to distort competition conditions between those substitutes.
- (70) Since trade of electricity is subject to cross-border exchanges within the EU Third Package on "Internal Electricity Market", the CHP certificates support scheme is likely to adversely affect trading conditions across the European Economic Area (EEA).

### *3.1.4. Conclusion with regard to the presence of state aid*

- (71) Taking the above into consideration, the Commission concludes that the notified measure involves state aid within the meaning of Article 107(1) TFEU.

## **3.2. Legality of the Aid**

- (72) Poland has implemented the CHP certificates system since 1 July 2007. The Commission regrets that Poland put the aid measure providing support to electricity produced in high efficient cogeneration into effect, in breach of Article 108(3) TFEU. Thus the aid in form of CHP certificates is illegal.

## **3.3. Compatibility assessment**

### *3.3.1. Aid in the form of yellow, red and purple CHP certificates*

#### *3.3.1.1. Determination of the appropriate framework for the assessment*

- (73) The Commission notes that the Polish CHP certificates system aims at promoting the generation of electricity from high efficient cogeneration. Consequently this aid measure falls within the scope of the Energy and Environmental Aid Guidelines 2014-2020 (EEAG)<sup>33</sup> as corrected by the corrigendum adopted by the

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<sup>33</sup> OJ C 200, 28.06.2014, p. 1.

Commission<sup>34</sup>, under Section 3.4. on energy efficiency measures, including cogeneration and district heating and district cooling. Based on the corrected text of the EEAG, in line with point 151 EEAG, operating aid for high efficient cogeneration plants may be granted on the basis of the conditions applying to operating aid for electricity from renewable sources as established in Section 3.3.2.1 and 3.3.2.4, to the extent that more specific provisions do not exist in Section 3.4. Thus, the Commission has assessed the CHP certificates support system on the basis of the general compatibility provisions of the EEAG, set out in Section 3.2 and Section 3.3.2.4 of the EEAG laying down specific compatibility criteria for aid granted by way of certificates.

- (74) As indicated in section 3.2 above, the support scheme in the form of CHP certificates was put in place on 1 July 2007 and constitutes unlawful aid. In line with point 248 EEAG, unlawful environmental aid or energy aid will be assessed in accordance with the rules in force on the date on which the aid was granted. Therefore, the Commission has assessed the compatibility of the aid granted between 1 July 2007 and 31 March 2008 on the basis of *Community guidelines on State aid for environmental protection* adopted in 2001 (2001 EAG)<sup>35</sup>, the aid granted between 1 April 2008 and 30 June 2014 on the basis of *Community Guidelines on State Aid for Environmental Protection* adopted in 2008 (2008 EAG)<sup>36</sup>, and the aid granted since 1 July 2014 on the basis of the EEAG provisions.

#### 3.3.1.2. Compatibility of the aid measure under 2001 EAG

##### *Applicable rules*

- (75) The rules applicable to operating aid for the combined production of electric power and heat are laid down in section E.3.4. of the 2001 EAG.
- (76) Operating aid for CHP may be justified provided that it can be shown that the measure is beneficial in terms of environmental protection, in particular due to primary energy savings, as laid down in point 66 in combination with point 31 of the 2001 EAG. Such aid may be granted to firms distributing electric power and heat to the public where the costs of producing such electric power or heat exceed its market price. The decision as to whether the aid is essential will take account of the costs and revenue resulting from the production and sale of the electric power or heat.
- (77) Operating aid may be granted on the same conditions as for the industrial use of the combined production of electric power and heat where it can be shown that the production cost of one unit of energy using that technique exceeds the market price of one unit of conventionally produced energy. The production cost may include the plant's normal return on capital, but any gains by the firm in terms of heat production must be deducted from production costs.
- (78) In line with point 66 in combination with points 61-62 of the 2001 EAG, Member States may grant support for cogeneration by using market mechanisms such as green certificates or tenders. Member States should show that such support is

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<sup>34</sup> OJ C 290 of 10.8.2016, p.11

<sup>35</sup> OJ C 37, 3.2.2001, p. 3.

<sup>36</sup> OJ C82,1.4.2008, p.1.



essential to ensure the viability of the CHP installations, that it does not in the aggregate result in overcompensation and that it does not dissuade CHP producers from becoming more competitive. The decision as to whether the aid is essential will take account of the costs and revenue resulting from the production and sale of the electric power and heat.

*Support is essential to ensure viability of CHP installations*

- (79) CHP production in Poland was (and still is) facing important economic barriers, as the price of electricity and heat on national markets does not provide sufficient incentives for investments in this area.
- (80) The support system is essential to ensure the viability of the production of electricity from cogeneration plants, as the generation costs of CHP electricity exceed the electricity market price. Electricity production from cogeneration is traditionally characterised by higher unit operating costs due to limited operation of full cogeneration mode (an annual average of 4 000 hours, depending on the heating season) compared with conventional thermal power units which operate at based load (6 500 to 8 000 hours). Furthermore, there is no possibility of offsetting additional costs of electricity generation against revenues from heat sales, due to the regulated character of the heat market in Poland<sup>37</sup>, and because the revenues from heat represent only a small share (15-20%) of the total revenues of a CHP plant.
- (81) Poland has explained that for the CHP plants the price of electricity covered only a part of the costs of electricity generation (e.g. around 60%). Therefore without the support scheme, the operation of such CHP plants would not have been profitable. Continuing the cogeneration of heat and power in the CHP units would have resulted in significant losses in terms of operating costs, thus, the CHP plants might have considered closing the CHP unit, (*i.e.* cessation of electricity production), and producing heat only in heating boilers.

*Lack of overcompensation in aggregate*

- (82) Table 3 below illustrates the difference between the levelised costs of electricity (LCOE)<sup>38</sup> in CHP and the total revenues from the sale of electricity, CHP certificates and heat. Calculations have been performed for eight technologies, representing cogeneration sources in Poland: coal-fired CHP units with capacity respectively 20 MW, 50 MW and 100 MW, gas and steam CHP units with capacity 50 MW, 100 MW and 250 MW, CHP unit with gas engines and biomass CHP unit with capacity of approx. 50MW. According to Poland, the share of specific technologies reflects the actual technological structure of Polish cogeneration. For each technology, a set of technical, economic and operating parameters have been established.
- (83) The following information has been used by Poland for the purpose of the calculations in Table 3: Electricity prices are subject to publication by the President of URE. The average price of heat has been calculated on the basis of data

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<sup>37</sup> District heating prices are approved by the President of URE, and there are limited possibilities to increase the tariffs above the inflation level owing to social considerations.

<sup>38</sup> LCOE takes into account the total costs associated with the production of electricity and heat, allocated in full to electricity production.

contained in the Bulletin of the Heating Industry (*Biuletyn Ciepłownictwa*) published by the Energy Market Agency (*Agencja Rynku Energii*). Prices of CHP and RES certificates have been calculated on the basis of data from the PPE. The rate of return used to calculate LCOE amounted to 8.04%.

- (84) Average values have been calculated as weighted average relating to the particular technologies. The minimum and maximum values correspond to technologies that, in a given year, are characterised, as appropriate, by the largest and smallest difference between the LCOE costs and revenues per unit. In case of biomass technology, both revenues from the sale of CHP and RES certificates have been taken into account.

**Table 3 – Comparison of the costs of electricity produced with CHP technologies existing in Poland with the revenues obtained from electricity, heat and CHP certificates**

Average values		2008	2009	2010	2011	2012	2013 <sup>7</sup>	2014
LCOE	PLN/MWh	523.97	523.97	523.97	523.97	523.97	523.97	523.97
Electricity-related revenues, including:	PLN/MWh	-172.66	-223.93	-226.65	-241.22	-244.05	-220.24	-220.92
- sale of electricity;	PLN/MWh	-133.53	-180.48	-177.99	-189.86	-201.47	-180.57	-168.37
- sale of certificates;	PLN/MWh	-39.13	-43.46	-48.66	-51.36	-42.58	-39.67	-52.55
Revenues from the sale of heat	PLN/MWh	-139.30	-151.59	-166.28	-171.82	-192.30	-197.39	-202.42
Difference	PLN/MWh	212.01	148.45	131.04	110.93	87.62	106.34	100.62
Minimum values		2008	2009	2010	2011	2012	2013	2014
LCOE	PLN/MWh	444.48	444.48	444.48	444.48	444.48	444.48	444.48
Electricity-related revenues, including:	PLN/MWh	-238.05	-300.36	-302.07	-315.53	-334.25	-334.49	-312.70
- sale of electricity;	PLN/MWh	-133.53	-180.48	-177.99	-189.86	-201.47	-180.57	-168.37
- sale of certificates;	PLN/MWh	-104.51	-119.89	-124.08	-125.68	-132.78	-153.92	-144.33
Revenues from the sale of heat	PLN/MWh	-65.35	-71.12	-78.01	-80.61	-90.22	-92.61	-94.97
Difference	PLN/MWh	141.08	73.00	64.40	48.34	20.01	17.39	36.81
Maximum values		2008	2009	2010	2011	2012	2013	2014
LCOE	PLN/MWh	560.84	560.84	560.84	560.84	560.84	790.71	790.71
Electricity-related revenues, including:	PLN/MWh	-150.79	-199.11	-200.61	-215.32	-215.83	-407.84	-422.77
- sale of electricity;	PLN/MWh	-133.53	-180.48	-177.99	-189.86	-201.47	-180.57	-168.37
- sale of certificates;	PLN/MWh	-17.25	-18.63	-22.62	-25.46	-14.36	-227.27	-254.40
Revenues from the sale of heat	PLN/MWh	-150.31	-163.58	-179.43	-185.41	-207.50	-213.00	-218.43
Difference	PLN/MWh	259.74	198.15	180.80	160.11	137.50	169.86	149.51

- (85) The above table demonstrates that the LCOE was higher than the revenues obtained by beneficiaries from selling electricity, heat and certificates of origin. Since, in aggregate, total revenues do not exceed the production costs in a given year, the CHP support scheme<sup>39</sup> does not result in overcompensation.

*Support does not dissuade CHP producers from becoming more competitive*

- (86) Poland explained that the CHP certificates support system is market based and does not guarantee a fixed amount of support, thus, producers are motivated to improve their efficiency and competitiveness due to market risks. Since the support level is determined by the price of the CHP certificates, established on the market, the incentive to become more efficient is preserved (increasing efficiency will not impact the level of the support received). Thus, the support does not dissuade CHP producers from becoming more competitive.

<sup>39</sup> The Commission notes that the table does not cover the period 1 July 2007 – 31 December 2007, but there is no reason why the data for 2007 would be significantly different from the data in 2008, and in 2008 the costs were almost double as compared to the revenues, therefore there is no indication that a risk of overcompensation in the aggregate could have been present in 2007.

### Cumulation

- (87) Point 74 of the 2001 EAG states that in case of cumulation of aid granted under these guidelines with other forms of aid, the maximum aid intensity allowed by the guidelines (or the most favourable aid ceiling) should not be exceeded.
- (88) With regard to cumulation of investment aid and operating aid granted in the form of CHP certificates, Poland has explained that revenues from the sale of CHP certificates in the first 5 year period<sup>40</sup> were subtracted from the value of eligible costs at the moment of granting investment aid for CHP installations. Moreover, the authority granting investment aid (NFOŚiGW) verified the results of calculations of internal rates of return for individual beneficiaries, within the context of assessing their financial viability.
- (89) The following table shows a simulation of cumulation of operating aid in the form of CHP certificates and of investment aid covering 50% of eligible costs. This simulation covers the worst case scenario. Poland explained that in practice investment aid was granted at lower levels. Moreover, based on the new Regional Aid Guidelines, since 1 July 2014, regional aid can no longer be granted to the energy sector (therefore the negative values observed in the table below between LCOE and the revenues for the period 2016-2018 will not possibly happen in practice). We further note that the situation presented by Poland is based on very conservative estimates, such as constantly increasing revenues from heat and certificates, and a significantly higher electricity price for the period 2016-2018 as compared to 2014-2015.

**Table 4 – Average unit costs of electricity generation from CHP, reduced by 50%, and revenues from the sale of electricity, heat and CHP certificates in 2008-2018.**

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
LCOE	PLN/MWh	435	435	435	435	435	435	435	435	435	435	435
Electricity related revenues, including	PLN/MWh	-173	-224	-227	-241	-244	-210	-221	-223	-238	-239	-239
- sale of electricity	PLN/MWh	-134	-180	-178	-190	-201	-181	-168	-169	-184	-184	-184
- sale of certificates	PLN/MWh	-39	-43	-49	-51	-43	-30	-53	-54	-55	-55	-56
Revenues from heat	PLN/MWh	-139	-152	-166	-172	-192	-197	-202	-207	-211	-216	-220
Difference	PLN/MWh	123	59	42	22	-1	27	12	5	-14	-19	-24

- (90) This information demonstrates that throughout the duration of the CHP certificates scheme, no overcompensation takes place in aggregate, as the revenues do not exceed the production costs, even after the maximum investment aid that the plant could have obtained is deducted from the production costs.
- (91) The Commission further notes that for 2012 the LOCE was slightly higher (by 1PLN/MWh, representing 0.2%) than the revenues obtained by the CHP. However, the support in the form of CHP certificates was suspended in 2013. Therefore, even if it could be argued that the data for 2012 seems to indicate a slight

<sup>40</sup> As required by the EAG.

overcompensation, this was corrected and compensated by the fact that in the following years the beneficiaries have not obtained revenues from CHP certificates (and the table shows that in 2013 the difference between LCOE and the revenues is again positive (27 PLN/MWh)). Therefore, the Commission concludes that there was no overcompensation in the aggregate.

- (92) Regarding cumulation of operating aid from the CHP certificates and RES certificates, Poland provided information showing that the cumulation of CHP certificates with investment aid and with RES certificates would not lead to overcompensation. Moreover, the Commission notes that all beneficiaries entitled to receive RES certificates are beneficiaries of the approved aid scheme SA.37345. The cumulation of all possible forms of aid for these beneficiaries has been assessed in detail in the decision concerning the case SA.37345, and the Commission already concluded that such a cumulation would not lead to overcompensation.

#### *Conclusion on compatibility with the 2001 EAG*

- (93) Based on the above, the Commission concludes that the CHP certificates support scheme is compatible with the internal market on the basis of the 2001 EAG, for the period between the entry into force of the scheme on 1 July 2007 and the moment when the 2001 EAG were replaced by the 2008 EAG on 1 April 2008.

#### *3.3.1.3. Compatibility of the aid measure with 2008 EAG*

##### *Applicable rules*

- (94) Aid for high efficient cogeneration is subject to compatibility conditions laid down in Section 3.1.7 of the 2008 EAG and operating aid to cogeneration in Section 3.1.7.2 of the 2008 EAG. Point 119 of the 2008 EAG makes a reference to Section 3.1.6.2 on operating aid to renewables, including Option 2 on aid granted in the form of market based mechanisms such as certificates. Given the high similarity of the provisions of the 2008 EAG with 2001 EAG for the operating aid for cogeneration, and the small changes in the amount of CHP certificates support, most of the assessment from Section 3.3.1.2 of this Decision remains valid.

##### *Objective of common interest*

- (95) As the EAG 2008 expressly limited operating aid for electricity from CHP to high energy efficient installations (see point 113) Poland has confirmed that the existing cogeneration units satisfy both the definition of high-efficiency cogeneration set out in point 70 (11) of the 2008 EAG and the requirement that there are overall primary savings compared to separate production as defined by Directive 2004/8/EC and Decision 2007/74/EC.
- (96) The introduction of the purple CHP certificates system for biogas fired installations is in line with a national programme *Innovative Energy Sector in Agriculture (Innowacyjna Energetyka - Rolnictwo Energetyczne)*. One of the aims of this programme was to create a biogas installation in each municipality by 2020, using biogas produced from agricultural biomass, with a total 2000 MW biogas capacity.

##### *Necessity and proportionality*

- (97) Based on the above assessment under the 2001 EAG, the Commission considers that the requirements of point 110 of the 2008 EAG are complied with. In

particular, as can be seen from Tables 3 and 4 above, in aggregate, the total revenues – taking into account sale of electricity, heat and certificates – remained lower than the production costs, even when cumulation with other forms of support was taken into account.

- (98) Table 5 below shows that the average revenues from the sale of electricity, heat and certificates do not, in aggregate, exceed LCOE for the entire duration of the scheme until 2018. Calculation methodology, assumptions and source of data remain the same as in case of Table 3, described above.

**Table 5 – Comparison of the costs of electricity produced with CHP technologies existing in Poland with the revenues from the sale of electricity, heat and CHP certificates**

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
LCOE	PLN/MWh	524	524	524	524	524	524	524	524	524	524	524
Electricity related revenues, including	PLN/MWh	-173	-224	-227	-241	-244	-210	-221	-223	-238	-239	-239
- sale of electricity	PLN/MWh	-134	-180	-178	-190	-201	-181	-168	-169	-184	-184	-184
- sale of certificates	PLN/MWh	-39	-43	-49	-51	-43	-30	-53	-54	-55	-55	-56
Revenues from heat	PLN/MWh	-139	-152	-166	-172	-192	-197	-202	-207	-211	-216	-220
Difference	PLN/MWh	212	148	131	111	88	116	101	94	75	70	65

- (99) Poland confirmed that none of the installations benefitting of the CHP certificates of origin support system is fully depreciated.

*Incentive effect*

- (100) The Polish system of CHP certificates does not specify eligibility criteria for beneficiaries in relation to the date of commissioning of an installation. This means that all high-efficient CHP installations operating throughout the duration of the CHP certificates support system may submit an application for obtaining the certificates.
- (101) The Polish CHP certificates support system was introduced on 1 July 2007 in the context of a reform of the Polish energy market. Before the reform, electricity from CHP was sold to an entity obliged to purchase this electricity (*odbiorca z urzedu*), based on tariffs approved by the President of URE. Those tariffs guaranteed coverage of the justified costs associated with the electricity production. Following the reform, electricity was subject to trade on competitive market. Existing CHP producers could either decide to continue cogeneration or cease production of electricity and continue to produce only the heat, for which regulated prices still ensured the full coverage of production costs. As a result of the introduction of the CHP certificates system, the CHP producers could continue electricity production. In the absence of the support, producing electricity would have generate losses, and the CHP producers would have switched to producing heat only. Thus, the support has changed their behaviour in the way that they were incentivised to pursue their production in a technology, which in the absence of CHP certificates regime would have been unprofitable.
- (102) In this context, Poland has presented calculation examples for each representative CHP technology, demonstrating that the revenues from sales of electricity and heat together with revenues from CHP certificates (and RES certificates, where

applicable) do not cover the production costs of such CHP installations. In particular, as regards biogas fired CHP installations, which are usually smaller plants benefitting from both CHP and renewable certificates of origin, the revenues from the market (heat and electricity) and renewable certificates would not cover the costs of generation. Such installations would not have been built without the additional support in the form of CHP certificates.

- (103) In addition, existing CHP producers relied – at the moment of taking their investment decisions – on the presence of the previous regime with regulated electricity tariffs.
- (104) The system of red and yellow CHP certificates of origin was first applicable since 1 July 2007 until 31 December 2012 and later re-introduced on 30 April 2014 with the duration until 31 December 2018. Poland demonstrated that some of the CHP plants changed the production modalities during the time when the CHP support discontinued in 2013 and partly in 2014. In particular, certain gas-fired cogeneration units switched off their gas and steam unit and started production of heat only in heating plants. Poland has also demonstrated in this context considerable increase of environmentally harmful emissions.
- (105) Based on the above, the Commission considers that the support scheme has an incentive effect, and in its absence the risk of the CHP plants switching from cogeneration to heat only production is real and considerable.

#### *Cumulation*

- (106) As illustrated in Table 4 above, Poland demonstrated that cumulation of CHP certificates with investment aid, also taking also into account RES certificates that the beneficiaries might receive, has not led to overcompensation in aggregate. Poland provided calculations to demonstrate that the cumulation of the investment aid with other operational support (in the form of CHP and RES certificates) did not lead to overcompensation in aggregate throughout the period of validity of the CHP certificates support scheme.
- (107) Table 6 below further shows an individual example of a biomass CHP installation. In the table, the capital costs of LCOE have been reduced by 50%, corresponding to the maximum allowed investment aid level. The result illustrates that no overcompensation took place even when the cumulation of operating aid in the form of CHP certificates, RES certificates, and investment aid was considered.

**Table 6 – Biomass-fired dedicated CHP installation 50 MWe, calculation for 2014 [PLN/MWh]**

<b>LCOE, including</b>	<b>698.35</b>
Capital costs*	119.35
Fixed operating costs	136.50
Variable operating costs, including	442.50
Fuel costs	432.00
CO <sub>2</sub> costs	0.00
Other variable costs	10.50
<b>Revenues, including from sales of</b>	<b>- 644.05</b>
Electricity	-167.92
Heat	-237.60
Red CHP certificates + RES certificates	-238.53
<b>Result</b>	<b>54.30</b>

\* reduced by 50%, i.e. corresponding to potential investment aid granting

(108) The purple certificates system entered into force in 2010, therefore the cumulation is assessed under the 2008 EAG. The support for CHP installations fired by biogas is complementary to the certificates of origin regime granted to renewable sources. This means that such installations have benefitted from both purple CHP and renewable certificates of origin. As submitted by the Polish authorities and visible in Table 7 below, their cumulation did not lead to overcompensation.

**Table 7 – Biogas fired CHP installation 0.5-1 MWe (calculation for 2014)**  
[PLN/MWh]

<b>LCOE, including</b>	<b>620.58</b>
Capital costs	168.80
Fixed operating costs	115.78
Variable operating costs, including	336.00
Fuel costs	318.50
CO <sub>2</sub> costs	0.00
Other variable costs	17.50
<b>Revenues, including from sales of</b>	<b>-526.58</b>
Electricity	-167.92
Heat	-102.00
Purple CHP certificates + renewable certificates of origin	-256.66
<b>Result</b>	<b>94.00</b>

(109) While this is only an example, the Commission notes that all beneficiaries producing electricity from biogas and entitled to receive RES certificates are beneficiaries of the approved aid scheme SA.37345. The cumulation of all possible forms of aid for these beneficiaries has been assessed in detail in the decision concerning the case SA.37345, and the Commission concluded that such a cumulation would still not lead to overcompensation.

*Other conditions and conclusion on compatibility with 2008 EAG*

(110) Poland confirmed compliance with the individual notification obligation under Chapter 5 of the 2008 EAG and with the provisions on annual reporting (Section 7.1. of the 2008 EAG) and on monitoring and evaluation (Section 7.3. of the 2008 EAG).

(111) Based on the above, the Commission concludes that the Polish CHP certificates support system is compatible with the internal market on the basis of the 2008 EAG, for the installations that started CHP electricity production in the period between the entry into force of the 2008 EAG on 1 April 2008 and the moment when the 2008 EAG were replaced by the EEAG on 1 July 2014.

*3.3.1.4. Compatibility of the aid measure under EEAG 2014-2020*

*Applicable rules*

(112) The Commission has assessed the compatibility of the aid granted after 1 July 2014 based on the provisions of the EEAG, in particular Section 3.4 on energy efficiency including cogeneration, Sections 3.3.2.4. and 3.2.

*Objective of common interest*

(113) The aim of the aid measure is to achieve primary energy savings through electricity production in high-efficient cogeneration. As laid down in the Directive 2012/27/EU on energy efficiency, the EU set the objective of saving 20% of the

Union's primary energy consumption by 2020. Poland confirmed that the beneficiaries are meeting the criteria of high-efficient cogeneration within the meaning of Directive 2012/27/EU. The Commission thus considers that the notified scheme is aimed at an objective of common interest in accordance with Article 107(3) TFEU and Section 3.4.1. EEAG.

*Need for state aid and appropriate instrument*

- (114) As recognised in point 142 EEAG, energy-efficiency measures target negative externalities by creating individual incentives to attain environmental targets for energy-efficiency and for the reduction of greenhouse gas emissions.
- (115) In line with point 145 EEAG, state aid may be considered an appropriate instrument to finance energy-efficiency measures, independently of the form in which it is granted.
- (116) Consequently, the Commission considers that for the Polish CHP certificates support system the aid is necessary and that it is an appropriate instrument to address the objective of common interest.

*Incentive effect*

- (117) In line with point 144 EEAG in combination with point 49 EEAG, the incentive effect occurs if the aid induces the beneficiary to change his behaviour towards reaching the objective of common interest, which it would not do without the aid. The Commission notes that, in the absence of the CHP support scheme, electricity produced from cogeneration would not be generated, as, without the aid, such generation would not be financially viable. Based on explanations and representative calculation examples for eligible technologies provided by Poland, in particular the structure of costs and revenues, the Commission considers that the aid provided to the CHP producers was essential to allow them to make the investments.
- (118) Moreover, on 23 September 2014, Poland introduced – for all new investments as of this date – a mechanism allowing for examination of the incentive effect in line with Section 3.2.4.1. EEAG. This includes an application form with the content required by point 51 EEAG and credibility check in line with point 52 EEAG. In this context, the Polish authorities have also confirmed that they have no knowledge about any new investments that took place during the period from 1 July 2014 until 23 September 2014, i.e. between the entry into force of EEAG and the date on which the requirements of the incentive effect examination were put in place in Poland.

*Proportionality*

- (119) In line with point 151 EEAG, operating aid for high efficient cogeneration may be granted on the basis of the conditions applying to operating aid for electricity from renewable energy sources as established in Section 3.3.2.1 and 3.3.2.4, to the extent that more specific provisions do not exist in Section 3.4.
- (120) Thus the aid in form of certificates should be assessed against the criteria laid down in Section 3.4 of the EEAG. The conditions in point 136 EEAG are largely similar to the ones already assessed under the 2001 and 2008 EAG. As already demonstrated above, the Commission considers that the Polish CHP certificates system is essential to ensure the viability of the CHP installations, does not in the



aggregate result in overcompensation over time and across technologies (for the entire duration of the scheme) and does not dissuade renewable energy producers from becoming more competitive. Therefore the Commission considers that the requirements of point 136 EEAG are complied with.

- (121) The level of the substitution fee constitutes in practice the maximum price of the certificates and is subject to yearly revision by the President of URE on the basis of several market elements. Therefore, the maximum level of the support is also yearly updated, which contributes to its proportionality and further reduces the risk of an overcompensation occurring in the future.
- (122) In line with point 137 EEAG, there is no differentiation in support levels through CHP certificates among the eligible technologies or installed capacities. Neither is there any difference in the support levels for new and modernised installations. For each MWh of produced electricity, the CHP installation receives one CHP certificate.<sup>41</sup> Poland also confirmed that none of the installations benefitting of CHP certificates has been completely depreciated.
- (123) Poland confirmed that electricity produced in CHP installations is sold on the market and that the beneficiaries under the CHP certificates scheme are subject to standard balancing responsibilities.
- (124) Also the possibility for beneficiaries to receive CHP certificates during periods with negative electricity prices (for more than 6 consecutive trading periods – currently corresponding to 6 consecutive hours) was eliminated. For this purpose the Polish authorities will use the weighted average price from the day-ahead market.
- (125) In so far as negative prices are concerned, the reference price considered is the average price of electricity weighted by the volume of exchange session transactions from the market it maintains, where the exchange session transactions are concluded, with the delivery of electric energy on the next day (Day-Ahead) and two days (Two Days Ahead) following the concluding of exchange session transactions - for each hour of electric energy delivery. This is because the Polish day-ahead market also contains a part for two days ahead transactions. This part (for two days ahead transactions) is very small (less than 1% of the volume traded on the day-ahead market).
- (126) Poland justified its choice for the day-ahead market, and the Commission agreed that under the current design of the Polish electricity market, the day-ahead market seems to be the most appropriate reference.
- (127) In principle the Commission favours a close to real-time market for monitoring negative prices, because negative prices are most likely to occur at short notice, due to circumstances that are difficult to predict (e.g. a sudden and unexpected increase of wind). However, in Poland the intraday market only operates between 8:00 AM and 15:30 PM (therefore it does not operate during night hours, when the risk of having negative prices is higher), and there are minimum price limits imposed on

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<sup>41</sup> Biomass and biogas fired installations may also receive RES certificates for the same unit of produced electricity. This is however justified by higher production costs and has been taken into account in the calculation of overcompensation.

the balancing market (70 PLN/MWh). Should Poland change its electricity market design in the future, the Commission recommends that the reference for negative prices is re-considered, and to the extent possible, a closer to real-time market is used for monitoring negative prices.

(128) The above elements are in line with the requirements of point 137 in combination with points 124-125 EEAG.

(129) The assessment concerning cumulation of investment and operating aid in previous sections referring to the 2001 and 2008 EAG remains valid, as it covered the total duration of the support, which is at the most until full depreciation of the CHP installation.

(130) Since Poland considered that the support provided through CHP certificates does not constitute aid, it did not introduce any restrictions on cumulation with investment aid, and no specific methodology for deducting investment aid previously granted from the operating aid. However, Poland submitted to the Commission detailed information on the types of aid that were available to CHP operators and the results of the cumulation of different forms of aid. Poland confirmed that the revenues from CHP certificates were taken into account for the purpose of granting investment aid, so that the investment aid was adjusted to avoid any overcompensation resulting from such cumulation. The data provided by Poland (see in particular Tables 4, 6 and 7 above) supports this conclusion and demonstrates that the cumulation of operating aid in the form of CHP certificates with other forms of aid (in particular investment aid) has not resulted in overcompensation. As explained in recital 89, based on the new Regional Aid Guidelines, since 1 July 2014, regional aid can no longer be granted to the energy sector (therefore the negative values observed in the table below between LCOE and the revenues for the period 2016-2018 will not possibly happen in practice). Moreover, the calculations were based on conservative estimates, and in practice the aid intensity for the investment aid was lower than the maximum allowed aid intensity of 50% (which was considered in the table, for the whole period). It follows that if the investment aid is deducted from the investment costs, the remaining costs are sufficient to justify the granting of operating aid in the form of CHP certificates.

(131) Based on the above, the Commission considers that point 137 EEAG is complied with.

#### *Transparency*

(132) According to point 104 EEAG, Member States have the obligation to ensure the transparency of the aid granted, by publishing certain information on a comprehensive State aid website. In line with point 106 EEAG, Member States are requested to comply with this obligation as of 1 July 2016. The Polish authorities declared that the transparency requirements set out in points 104-106 EEAG will be complied with.

#### *Compliance with waste hierarchy principle*

(133) In view of the fact that waste is used as fuel in some installations generating energy from cogeneration, the Polish authorities confirmed that the waste hierarchy, as set

out in the Directive 2008/98/EC<sup>42</sup> is respected, as it ensues from the provisions of the Act of 14 December 2012 on Waste, implementing the Directive 2008/98/EC in the Polish legal order. Therefore the Commission considers that point 140 EEAG is complied with.

*Distortion of competition and balancing test*

- (134) In line with point 90 of the EEAG, the Commission considers that aid for environmental purposes will by its very nature tend to favour environmentally friendly products and technologies at the expense of other, more polluting ones. Moreover, the effect of the aid will in principle not be viewed as an undue distortion of competition since it is inherently linked to its very objective.
- (135) The Commission presumes aid to energy from cogeneration to have limited distortive effects provided all other compatibility conditions are met. The Commission considers that the aid to cogeneration under assessment does not have undue distortive effects on competition and trade because the applicable conditions laid out in Section 3.4. EEAG are fulfilled, as discussed above.
- (136) Consequently, the Commission concludes that the distortion of competition caused by the scheme under assessment is limited.

*Individual notification threshold*

- (137) Poland confirmed that the threshold for individual notification for detailed assessment (300 MW of installed capacity) will be respected.

*Conclusion on compatibility with EEAG*

- (138) Bearing in mind the above, the Commission concludes that the aid granted to high efficient CHP installations in form of red, yellow and purple certificates since 1 July 2014 until 31 December 2018<sup>43</sup> and in any event at most until the full depreciation of the installation is in line with EEAG.

*3.3.2. Aid in the form of purple methane-fired CHP certificates*

*Applicable rules*

- (139) Purple certificates are granted to units fired by methane released and captured during underground mining works in operating hard coal mines, closed mines or mines under liquidation (so-called mine gas), or in units fired by gas produced from biomass (so-called biogas). As biogas is considered to constitute a renewable source of energy production, the assessment of purple biogas-fired CHP certificates system has been carried out in the section 3.3.1 of this decision. The assessment in the present section of the decision only applies to purple methane-fired CHP certificates system.
- (140) The Commission has assessed the support to electricity production from mine gas installations under section 3.5.1 EEAG on aid for resource efficiency. Since the system of support in the form of purple certificates entered into force on 11 March

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<sup>42</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, OJ L 312 of 22.11.2008, p.3

<sup>43</sup> See recitals 30 and 31.

2010 and EEAG is only applicable from 1 July 2014, the assessment of the scheme for the period from 11 March 2010 until 30 June 2014 has been carried out on the basis of Article 107(3)(c) TFEU directly, using the same assessment principles as stipulated in EEAG.

*Well-defined objective of common interest*

- (141) Mine gas is a mixture of gases that occurs naturally in coal production sites and contains a high proportion of methane. It has a high global warming potential when released to the atmosphere.
- (142) Except the contribution to climate protection efforts, exploitation of mine gas for electricity production involves primary energy savings, as otherwise the mine gas would be released to the atmosphere and another primary resource would be used to produce electricity. These positive effects for the environment were already recognised by the Commission in previous decision-making practice.<sup>44</sup>
- (143) Poland submits that the greenhouse potential effect of mine gas is 21 times higher than that of CO<sub>2</sub>. In addition, at the moment of the start of the system of purple CHP certificates, the Polish authorities assumed that the release of 340 million m<sup>3</sup> of methane to the atmosphere yearly will be avoided.
- (144) In 2013, the total volume of methane from coal exploitation in Poland amounted to 838 million m<sup>3</sup>, out of which 578 million m<sup>3</sup> was released to the atmosphere and 260 million m<sup>3</sup> was captured. For energy purposes 188 million m<sup>3</sup> of methane were used. The total volume of methane is expected to increase in the following years due to technical characteristics of coal production.
- (145) Based on the above elements, the Commission concludes that the scheme aims at a well-defined objective of common interest, namely environmental protection, and more particular, CO<sub>2</sub> emissions and primary resources savings.

*Need for State intervention and appropriate instrument*

- (146) Point 153 EEAG recognises that market failures of the kind described in point 35 EEAG are particularly relevant for resource efficiency. In addition, market failures in that area are often not addressed by other policies and measures and therefore, state aid may be necessary.
- (147) Without the support scheme, methane would be released to the atmosphere causing harmful environmental effects. Therefore, capture and utilisation of methane gas contributes to the efforts to reduce the release of greenhouse gases given that the Polish legal order currently does not require operators of coal mines to capture the gas or avoid that it would be released to the atmosphere.
- (148) Moreover, the positive impact on the environment of the capture and use of methane as compared to the venting of such gas cannot be factored in the price of electricity generation from mine gas.

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<sup>44</sup> SA.24642 (N 708/2007) – Germany – *Coal mine closure plan 2008-2018*; SA.33766 – Germany – *Aid for hard coal 2011*; SA.33995 – Germany – *Support of renewable electricity and reduced EEG surcharge for energy-intensive users*; SA.38632 – Germany – *EEG 2014*; SA.40713 – France – *Support for installations producing electricity from mine gas*.

(149) The Commission concludes that state aid for production of electricity from mine gas may be needed to achieve the environmental benefits linked with the utilisation of mine gas as a source of energy (compared to the venting of such gas).

*Incentive effect and proportionality*

(150) State aid provides an incentive effect if the aid changes the beneficiary's behaviour towards achieving the objective of common interest.

(151) Poland has demonstrated, by way of calculation examples, that solely the market revenues would not cover the costs of electricity production from methane-fired CHP installations. Thus, without the support scheme, such electricity generation would not have taken place.

(152) Poland has confirmed that a procedure of verification of incentive effect, in line with points 51-52 EEAG, has been introduced for installations benefitting from purple certificates that started operation after 23 September 2014. The Polish authorities are not aware of any methane-fired CHP installations that would have entered the support system between 1 July 2014 and 22 September 2014.

(153) CHP installations fired by methane are eligible to receive purple certificates. In certain cases, they can receive yellow certificates, in particular in case of small installations (below 1 MW installed capacity) or when they are fired by natural gas (for instance when methane is not available). However, yellow and purple certificates cannot be cumulated, i.e. an installation can only receive only one CHP certificate for the same unit of generated electricity.

(154) Based on the calculation examples presented by the Polish authorities (Table 8 below), the Commission concludes that the support in the form of purple CHP certificates for methane fired installations does not lead to overcompensation.

**Table 8 – Methane fired CHP installation 3 MWe, calculation for 2014 [PLN/MWh]**

<b>LCOE, including</b>	<b>344.07</b>
Capital costs	85.64
Fixed operating costs	144.26
Variable operating costs, including	114.17
Fuel costs	109.17
CO2 costs	0.00
Other variable costs	5.00
<b>Revenues, including from sales of</b>	<b>-311.37</b>
Electricity	-167.92
Heat	-86.40
Purple CHP certificates	-57.05
<b>Result</b>	<b>32.70</b>

(155) The support in the form of purple CHP certificates for methane-fired installations does not lead to overcompensation as the revenue from purple certificates does not exceed the difference between the market revenues and production costs of electricity. In addition, the level of the support does not create incentives for specific drilling in coal mines to find methane for energy purposes. Poland has also confirmed that aid is not granted beyond the depreciation period.

### *Distortion of competition and balancing test*

- (156) The Commission notes that distortion of competition is rather limited in case of aid granted to methane-fired CHP installations. The aid is granted to a limited number of installations with relatively small capacity and compensates only additional costs of electricity generation. The total volume of methane-fired CHP certificates of origin amounted to 0.29 TWh in 2014, which corresponded to 0.2% of electricity generation in Poland. The installed capacity of in total 13 beneficiaries amounted to 160 MW. In addition, the possibilities of location of methane-fired CHP installations are limited through the dependence on the availability of methane, thus they are located next to hard coal mines.
- (157) The beneficiaries sell electricity directly on the market and are subject to standard balancing responsibilities. As of 1 January 2016, support is not granted in relation to electricity generation during negative prices (see above recital 124). Thus, the Commission concludes that the overall balance is positive.

#### *3.3.1. Compliance with Articles 30 and 110 TFEU*

- (158) Point 29 EEAG stipulates that, if a State aid measure or the conditions attached to it (including its financing method when it forms an integral part of it) entail a non-severable violation of Union law, the aid cannot be declared compatible with the internal market. In the field of energy, any levy that has the aim of financing a State aid measure needs to comply in particular with Articles 30 and 110 TFEU. In the case of the CHP certificates system, certain entities (in majority electricity suppliers) are obliged to purchase a certain quota of certificates of origin. These costs are then passed on to final customers in majority, in their electricity bills. The quota of certificates of origin to be purchased by obliged entities is calculated in view of the total electricity they sell, or, respectively, consume. Therefore, imported CHP electricity is taken into account for the calculation of the quota for the redemption of certificates of origin and is, thus, also burdened with the price of certificates of origin, which acts, effectively, as a levy that is ultimately passed on to final consumers as an extra cost calculated for their entire electricity consumption. The Commission has therefore verified if the financing mechanism of the notified aid measure complies with Articles 30 and 110 TFEU.
- (159) In order to alleviate any concern regarding compliance with Article 30 and 110 TFEU, Poland proposed to invest in infrastructure that would increase cross-border electricity flows, increasing both the export and the import capacity at the western border of Poland (see recital 28 above). The remedy proposed has been assessed and accepted by the Commission in its decision in case SA.37345 with regard to potential risk of discrimination caused by certificates of origin for electricity from renewable sources.
- (160) The Commission notes that the value of the investments proposed as remedy (PLN 420 million) is more than double the amount of the estimated discrimination calculated by Poland, corresponding to both CHP and RES imported electricity for the period 2005 – 2015 (which was PLN 172 million).
- (161) The CHP certificates support will expire on 1 January 2019. The Commission considers that the investments proposed by Poland are likely to improve significantly the availability of cross-border capacity for high efficient CHP

electricity flows, and is as such susceptible to benefit high efficient CHP electricity imports.

### 3.3.2. *Conclusion with regard to the compatibility of the measure*

(162) In light of the above assessment, the Commission considers that the assessed aid measure has fulfilled the criteria of the subsequent environmental aid guidelines and pursues an objective of common interest in a necessary and proportionate way, the distortion of competition are limited, and therefore the aid is compatible with the internal market on the basis of Article 107(3)(c) TFEU.

(163) The Commission approves the measure until 31 December 2018 and in any event not going beyond the full depreciation of the high efficient CHP installations.

## 4. CONCLUSION

The Commission regrets that Poland put the system of support in the form of certificates of origin for cogeneration into effect, in breach of Article 108(3) of the Treaty on the Functioning of the European Union.

However, it has decided, on the basis of the foregoing assessment, not to raise objections to the aid measure on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

The Commission reminds Poland that any amendments to the aid measure must be notified.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site:  
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Yours faithfully  
For the Commission

Margrethe VESTAGER  
Member of the Commission

## Annex I

### Schematic overview of the Polish CHP certificates system

