



Brussels, 2.8.2016
C(2016) 4944 final

<p>In the published version of this decision, some information has been omitted, pursuant to articles 30 and 31 of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...]</p>		<p>PUBLIC VERSION</p> <p>This document is made available for information purposes only.</p>
---	--	---

Subject: State Aid SA. 37345 (2015/NN) - Poland
Polish certificates of origin system to support renewables and reduction of burdens arising from the renewables certificate obligation for energy intensive users

Sir,

1. PROCEDURE

- (1) On 11 September 2013, Poland notified a planned support measure for energy intensive users (EIUs), aimed to provide them a partial relief from the charges used to finance a support system for electricity from renewable energy sources (RES).
- (2) At the request of the Commission Poland provided additional information on 7 January 2014, 27 February 2014, 13 June 2014, 2 September 2014, 15 December 2014, 27 February 2015, 26 August 2015, 14 September 2015, 16 September 2015, 20 October 2015, 4 November 2015, 14 December 2015, 14 January 2016, 27 January 2016, 14 March 2016 and 29 March 2016. Several meetings and phone

Jego Ekscelencja
Pan Witold WASZCZYKOWSKI
Minister Spraw Zagranicznych
Al. J. Ch. Szucha 23
00-580 Warszawa
POLSKA

conferences were also organised with the Polish authorities (on 21 May 2014, 20 June 2014, 09 November 2014, 22 January 2015, 29 May 2015, 15 July 2015, 17 September 2015, 23 October 2015, 1 March 2016).

- (3) The Polish authorities indicated that in their view neither the support system for electricity from RES based on certificates of origin (called hereafter: "CO system"), nor the reduction of burdens arising from the RES certificate obligation for EIUs can be considered as State aid. Therefore Poland notified the support measure for EIUs for reasons of legal certainty only. Nevertheless, at the request of the Commission, Poland submitted information on the eventual compatibility of both measures with the internal market.
- (4) The Polish authorities consider that the CO system does not constitute State aid as the system would not involve a transfer of State resources in accordance with the *PreussenElektra* case-law¹ and previous Commission case practice. The Polish authorities argue that the Dutch NO_x² case-law does not apply in the case of the Polish CO system since the certificates of origin solely represent official documents certifying compliance with defined requirements and cannot be either sold or auctioned by the State.
- (5) The Commission has received on 9 August 2013 a complaint regarding aid to co-firing and old hydropower plants in Poland from a RES producer. The complaint was registered under the case SA.37224 (2013/CP) Polish CO system for co-firing coal plants. On 15 July 2014, the Commission received market information regarding the measure from four environmental organizations and registered it in the same case, SA.37724.

2. DETAILED DESCRIPTION OF THE MEASURES

2.1. The CO System to Support Renewable Energy Producers

2.1.1. Scope

- (6) For the purpose of satisfying the obligations imposed by EU law, in particular by the Directives 2001/77/EC³ and 2009/28/EC⁴, the Polish authorities established a support system for RES electricity producers based on certificates of origin, the CO system that entered into force on 1 October 2005. It consists of the imposing on certain entities the obligation to acquire certificates of origin issued for electricity generated from RES.

¹ C-379/98 *PreussenElektra*, EU:C:2001:160

² C-279/08 P *Commission v Netherlands*, EU:C:2011:551

³ Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market (OJ L 282, 27.10.2001, p. 33)

⁴ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16)

- (7) The Polish authorities indicated that the development of renewable energy as part of the national power system has, thus far, been consistent with the Government's assumptions adopted in Poland's Energy Policy until 2030 and the National Renewable Energy Action Plan, and even slightly exceeds the targets in terms of installed capacity. Between 2005 and 2012 the share of electricity produced from RES in gross electricity consumption increased from 2.58 % to 10.6 %, and the share of energy from RES in total primary energy consumption increased from 5.8 % to 11.7 %.

2.1.2. Legal basis

- (8) The national legal basis is the Act of 10 April 1997 on Energy Law, as subsequently amended. The Act of 20 February 2015 on renewable energy sources ("RES Act") further amended the CO system. The Polish authorities confirmed that the notion of certificates of origin used in Article 44 of the RES Act includes certificates of origin as understood pursuant to the Energy Law.

2.1.3. Beneficiaries

- (9) Beneficiaries are all producers of electricity from RES, such as wind, solar, aerothermal, geothermal, hydrothermal and tidal energy, hydropower, biomass, landfill biogas and biogas generated as a result of sewage disposal and treatment processes or the decomposition of stored plant and animal residues.

2.1.4. Duration

- (10) The CO support system was introduced on 1 October 2005. Initially Poland confirmed that 31 December 2015 is the last day when the right to receive certificates of origin can be acquired by the RES-electricity producer. According to the Polish law⁵, certificates will be provided to the beneficiaries accepted in the scheme for a period of 15 subsequent years, no longer than until 31 December 2035; the period shall be counted from the day when electricity is first produced as confirmed by the issued certificate of origin.
- (11) On 14 January 2016 Poland informed the Commission that the possibility for RES-electricity producers to enter the CO system (i.e. to obtain the right to receive certificates of origin over 15 years) is extended until 30 June 2016. On 12 July 2016 the Polish authorities confirmed that 30 June 2016 was the last date when RES installations could apply to receive the right to certificates of origin for 15 years. The possibility for entry into the CO scheme, as understood under the RES Act and the Energy Law, has therefore expired.

2.1.5. Functioning of the RES support system

2.1.5.1. Functioning of the RES support system introduced in 2005

- (12) Until the entry into force of the RES ACT, the CO system was an open system to which installations automatically qualified if they started RES-electricity production and fulfilled the general conditions established for electricity generators. So, if RES-electricity producers fulfilled the conditions, they were automatically granted

⁵ Article 44(5) of the RES Act

the right to receive support. The moment generators fulfilled the relevant conditions was considered the date of the award of the aid. The CO system was not limited in time as the legislation did not provide for an expiry date.

- (13) In 2012, when works on new RES Act started, it was explicitly announced that the support will be restricted to 15 years.
- (14) The certificates of origin⁶ are issued on the basis of the application of the RES electricity producer. This is confirmed by the transmission system operator ("TSO") with respect to the production volume in a respective period of time. All producers holding the relevant license that have submitted an application and satisfy requirements, are entitled to receive certificates confirming the generation of a specific volume of energy from a certain renewable source. The number of certificates granted is proportionate to the volume of generated electricity.
- (15) The CO system has been established in a manner that does not differentiate between technologies, the installed capacity of the respective installations, whether they have been modernized or are new and their date of commissioning. For each MWh produced, the qualified RES installation receives one certificate of origin⁷. The number of received certificates depends solely on the volume of generated electricity that complies with the generation criteria of RES.
- (16) For co-firing installations, certificates of origin are allocated only for the volume of electricity that was produced with the chemical energy of biomass fuel. When waste is used as fuel, certificates of origin are allocated only for the biodegradable part of the waste.
- (17) The certificates are issued by the Polish regulatory authority, i.e. the President of the Energy Regulatory Office (the "URE President") and registered in the Register kept by Polish Power Exchange (Towarowa Giełda Energii S.A.) ("PPE"). The Polish authorities claim that the URE President performs an exclusively administrative function in the Polish system as the issuer of the certificates of origin.
- (18) Certificates of origin are tradable on the PPE or on the basis of bilateral contracts. Electricity producers entitled to support obtain additional revenues from the sale of the certificates of origin. Poland has set no minimum or maximum price for the transactions with certificates of origin. After the certificates are entered in the IT recording system of the Register, both RES generators who obtain certificates of origin and entities obliged to purchase certificates may freely trade them, i.e. conclude certificate sales and purchase agreements. Certificates can be resold. The

⁶ The certificates of origin (introduced in Poland on the basis of Article 9e of the Energy Law with further amendments) are granted for electricity produced from RES, 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 not be confused with the "guarantees of origin" mentioned in Directive 2001/77 and Directive 2009/28.

⁷ Poland has also introduced a support scheme for high efficient heat and power cogeneration ("CHP") installations based on different colours of certificates. Certain installations may receive a CHP certificate as well as a certificate of origin per MWh (e.g. biomass-fired cogeneration sources may receive a red certificate and a certificate of origin and biogas-fired cogeneration sources may receive a purple/yellow certificate and a certificate of origin). This CHP system is subject of a separate procedure, SA.36518.

final stage in the RES certificate flow is the redemption of the certificate by the President of URE.

(19) The Polish authorities have established a series of entities that are required to purchase certificates of origin thereby creating a demand for certificates. The Minister for the Economy sets the level of the obligation in a Regulation. The President of URE monitors if the obligation to redeem RES certificates has been fulfilled. The respective entities are required to:

- obtain a specific quantity of certificates and present them for redemption to the URE President, or
- pay a compensation fee by the 31st of March of each year, for the preceding calendar year, to the account of the National Fund for Environmental Protection and Water Management („NFOŚiGW”), for each certificate of origin they were obliged to buy that they cannot present to the URE President. The value of the compensation fee has been defined in the Polish legislation. It was initially set at PLN 240 in 2005 and was indexed each year. The fee reached PLN 300.03 in 2014.

(20) The funds received by NFOŚiGW from the compensation fee are used to finance environmental protection instruments other than operating support of electricity generation in RES. The Polish authorities indicated that, in cases where financing provided by NFOŚiGW amounts to State aid in accordance with Article 107 (1) TFEU, such financing is granted only in accordance with applicable EU State aid rules⁸.

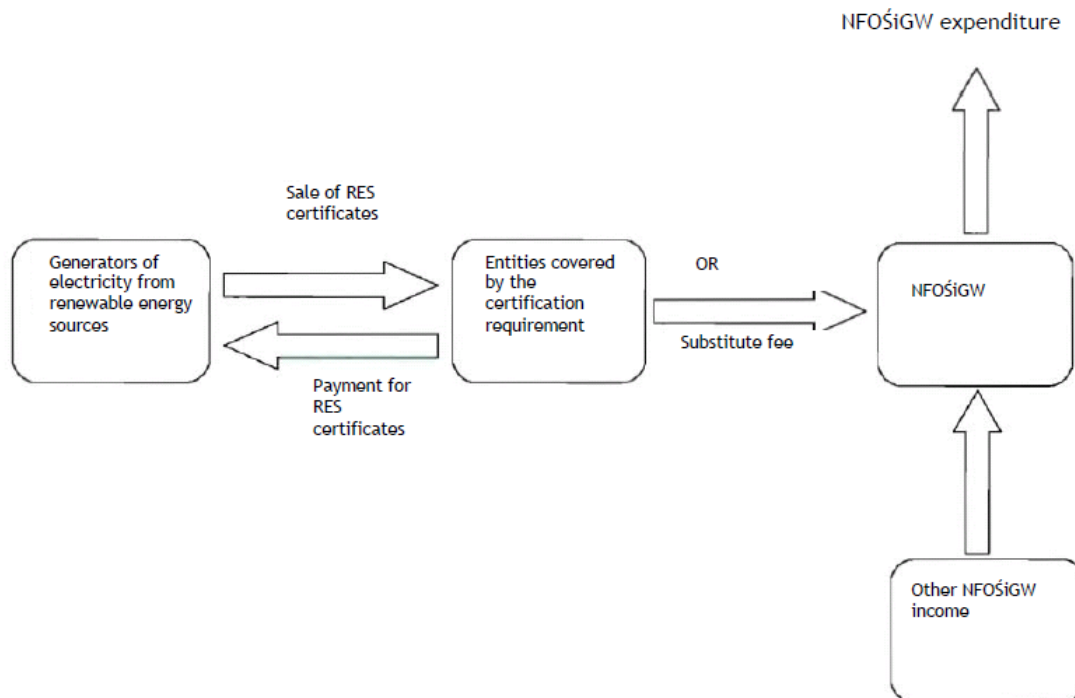


Figure 1 - Diagram of financial flows

⁸ The Commission notes that such State aid is outside the scope of this decision, and unless exempt from the obligation to be notified, it will be subject to separate notification.

(21) The entities obligated to purchase certificates of origin are the following:

- energy companies engaged in electricity generation or trading which sell this energy to end customers (the majority of the entities obligated),
- 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 the Republic of Poland,
- 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 fulfilled⁹.

(22) Pursuant to Article 56(1) of Energy Law if the entities obliged to purchase certificates of origin do not comply with their obligation to purchase certificates of origin, they are liable for a fine imposed by the URE President set at 130 % of the compensation fee effective for the respective year.

Fulfilment of the obligation – redemption of certificates of origin

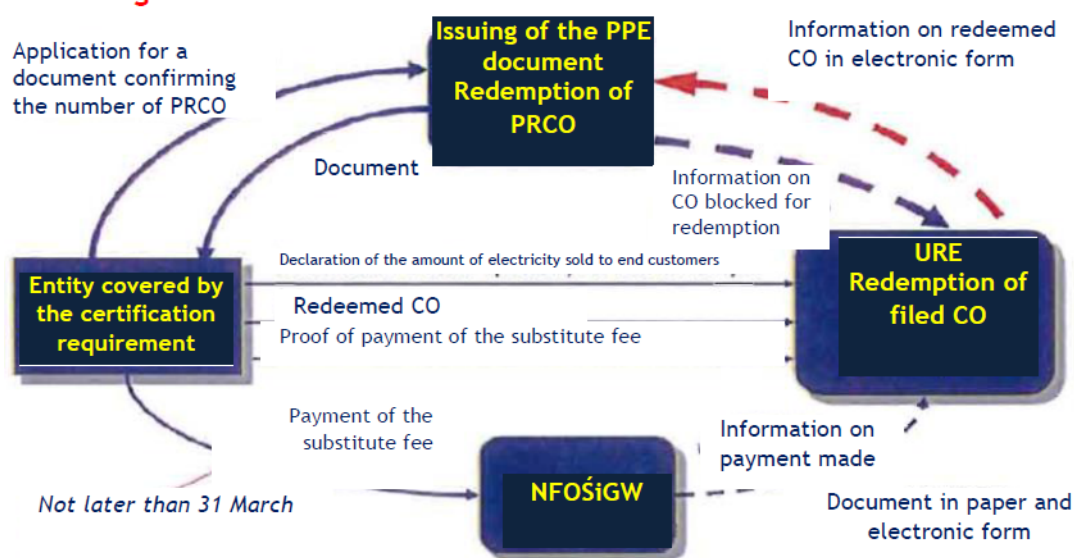


Figure 2 – Fulfilment of the obligation – redemption of certificates of origin

(23) The Polish authorities argue that by issuing RES certificates, redeeming them, monitoring the entities covered by the certification requirement (in particular monitoring if the obligation to redeem certificates has been fulfilled) and

⁹ This category was introduced in 2013.

announcing the amount of the compensation fee, the President of URE indirectly controls and monitors the system of RES certificates.

- (24) Entities obliged to purchase certificates of origin include the certificate cost in the electricity price charged from end consumers.
- (25) Industrial users may in theory add the costs related to certificates to the price of their products sold to customers (in the same way that the price of energy in which these costs were already incorporated was added before 2013). In principle, this decision is left to the discretion of industrial users, in particular as regards the amount of costs passed on to customers.
- (26) Electricity suppliers add the costs related to certificates to the price of electricity sold to customers. In principle, this decision is left to the discretion of suppliers, in particular as regards the amount of costs passed on to customers.
- (27) The passing on to customers of the costs related to the obligation of energy companies covered by the redemption requirement is however regulated¹⁰ for electricity that is sold to households by suppliers of last resort. The Regulation implementing the Energy Law provides for formulae on how the costs can be passed on.

2.1.5.2. Amendments to the CO system introduced in 2015

- (28) The RES Act of 20 February 2015 clarifies that as from 2016 a new support scheme will be introduced, making it also clear that, under the current CO system, 31 December 2015 is the last day when rights to receive certificates of origin can be acquired. It further clarifies the maximum time limit for granting certificates: installations qualified into the system receive certificates of origin for a maximum of 15 consecutive years since they begin operation until, at the latest, 31 December 2035. It also introduces restrictions on the possibility to pay a compensation fee if the certificate price is lower than 75 % of the compensation fee, aimed to counteract the oversupply of certificates. The Act also introduces a new procedure to verify the existence of an incentive effect and changes the certificate obligation level (until 2015 the obligation was set at 14 % of the total volume of electricity sold, while for 2016 it is set at 15 %). Another amendment concerns the elimination of the possibility to receive a certificate when prices are negative for at least six consecutive hours of electricity supply.
- (29) The RES Act has amended the Energy Law in that it has introduced an application process into the CO system to be submitted within the frame of an application process for the license under art. 43 of the Energy law. The date when a certain RES-electricity producer is confirmed for the issuance of a licence coincides with the moment of its entry into the CO system, i.e. having the right to certificates of origin for 15 years.
- (30) The Polish authorities introduce additional amendments in the support scheme (described below in Sections 2.1.5.3 and 2.1.5.4) that will reduce the supply of

¹⁰ Paragraph 17 of the RES Regulation, Paragraph 28 of the Regulation of the Minister for the Economy of 18 August 2011 on detailed rules for tariff determination and calculation, and settlements in trade in electricity and Article 45 of the Energy Law Act.

certificates of origin on the market. This will address the current significant oversupply of certificates of origin leading to their falling prices. Moreover, the Polish authorities plan to gradually reduce the obligation to redeem certificates of origin so as to take into account the switch by some installations to the auction system to be introduced in 2016 and the declining supply of certificates resulting from the adjustments to the 2005 scheme described above. Therefore, the Polish authorities believe that the calculations regarding the CO system remain valid.

- (31) By the Act of 29 December 2015 amending the RES Act and the Energy Act, the Polish authorities prolonged until 30 June 2016 the period during which RES producers have the possibility of acquiring the right to receive certificates of origin for 15 years. The entry into force of the new support system was postponed until 1 July 2016.

2.1.5.3. Amendments of the aid for multifuel installations introduced in 2015

- (32) The new legislation provides for several amendments of the support for multifuel installations (co-firing) under the 2005 scheme.
- (33) The amendments are a consequence of the new priorities adopted in the Polish national RES development policy and have been introduced in order to limit the development of co-firing installations (above all, those using biomass fuel) and to provide an impulse for the development of other RES technologies.
- (34) One amendment aims at ensuring that multi-fuel installations will not generate more electricity than the level generated in recent years.
- (35) To that end, a rule has been included in Article 44(8) of the RES Act that a RES installation which uses biomass, bioliquids, biogas or agricultural biogas to generate electricity in a multi-fuel firing installation or in a dedicated multi-fuel firing installation may obtain a certificate of origin confirming electricity generation in the year concerned only for an amount not exceeding the average annual:
- amount of electricity generated in the period 2011–2013 by this generator using biomass, bioliquids, biogas or agricultural biogas in the installation in question, or
 - amount of electricity generated by this generator using biomass, bioliquids, biogas or agricultural biogas during the period in which economic activity was conducted at the installation in question, not longer than three years – if the generator began conducting such activity after 31 December 2013.
- (36) The second change involves the introduction of a 0.5 correction factor for the number of certificates of origin per MWh of electricity generated from RES in co-firing installations, to be applied until 31 December 2020. Support for RES energy generated in dedicated co-firing installations will be maintained at the current level due to the higher share of RES energy used in these installations requiring higher capital expenditures. Dedicated multifuel installations are installations fulfilling the following conditions before 30 June 2014:
- are equipped with separate processing lines for the preparation and transport to a combustion chamber of biomass, bioliquids, biogas or

agricultural biogas whose share, calculated according to calorific value, in the total amount of all fuels burnt in this installation is higher than 20 %, or

- use the fluidised bed technology in an installation with a total installed capacity not exceeding 50 MW, designated for burning industrial waste together with fossil fuels or fuels resulting from their processing and biomass, bioliquids, biogas or agricultural biogas, for which the share of the biomass, bioliquids, biogas or agricultural biogas, calculated according to calorific value, in the total amount of all fuels burnt in this installation is higher than 30 %.
- (37) There are 13 dedicated multi-fuel firing installations in Poland, operated by 12 companies. The total installed RES capacity of these installations is estimated at approx. 385 MW. There are also 31 (non-dedicated) co-firing installations, whose total installed RES capacity is estimated at approx. 932 MW.
- (38) Given the level of prices for the certificates of origin in 2015 (below PLN 120 in futures contracts), support granted at the level of 0.5 certificate per 1 MWh set up by the Ministerial Regulation only for non-dedicated co-firing installations (in line with article 44(10) of RES Act) will significantly limit the use of biomass in non-dedicated co-firing installations.
- (39) The Polish authorities expect that the amendment will significantly limit, under the current market conditions, the use of biomass in co-firing installations, because additional variable costs resulting from the use of biomass fuel will not be covered in full and it will not be possible to cover capital costs.
- (40) The Polish authorities do not exclude the possibility that, in the future, the 0.5 factor is subject to periodic adjustment, in line with changes on the electricity and biomass market. At the same time, it will be ensured that support for co-firing in existing installations covers only the additional variable costs of biomass fuel.

2.1.5.4. Amendments of the aid for hydropower installations with an installed capacity above 5 MW introduced in 2015

- (41) The new legislation provides for an amendment of the support to hydropower installations with an installed capacity above 5 MW under the 2005 scheme: operators of the existing hydropower plants with a capacity exceeding 5 MW will no longer receive certificates of origin at the end of 2015.
- (42) The Polish authorities explained that no new hydropower plant with a capacity exceeding 5 MW has been put into operation in Poland after 1999. However, all the installations in this capacity group have incurred considerable expenditures on modernisation, which is why the support for them was necessary.

2.1.6. *Cumulation*

- (43) The Polish CO system does not contain rules on cumulation with other types of aid such as investment aid or others categories of certificates as the Polish authorities have always believed that the CO system does not involve State aid.

2.1.7. Compliance with other provisions of the Treaty

- (44) In order to address any potential discrimination that might have occurred in the past as regards imported RES electricity and ensure full compliance with Articles 30 and 110 TFEU, Poland undertook to open its future RES support scheme¹¹ and to invest in energy infrastructure that would benefit cross-border electricity flows, increasing Poland's import capacity.
- (45) Poland estimated the total amount of potential discrimination against imported RES and CHP electricity¹² for the period 2005-2015. For this purpose, the following algorithm was used:
 - (46) Average annual economic burden of RES and CHP for every unit of energy [MWh] consumed by end-users over the period 2005-2015 has been calculated. The resulting weighted average amount charged for the entire period of potential discrimination is 24,27 PLN/MWh;
 - (47) Annual Cross-border Exchanges Agreed Graphics (UGWM) for each of the cross-border exchange, [MWh] has been determined;
 - (48) Based on Eurostat data, shares of CHP and RES in electricity production in countries with which Poland performs cross-border exchange (Germany, Czech Republic, Slovakia, Sweden)¹³ [%], has been determined.
 - (49) By multiplying the three values above for each year and each cross-border exchange, the value of potential discrimination for no opening of support system for RES and CHP was obtained. The total amount calculated for the duration of the scheme is PLN 172 million.
 - (50) Poland proposed two groups of investments aimed at increasing the capacity of electricity exchanges on the Polish south-western synchronous border.
 - (51) First group of investments includes the installation of phase shifting transformers (PST), which are a common Polish – German initiative. The installation of PST in the Polish substation Mikułowa on the 400 kV crossborder line Mikułowa-Hagenwerder¹⁴ This project is in progress and its completion is planned in 2017 (PST in Mikułowa substation will be completed in early 2016 and PST in Vierraden substation will be completed in 2017). The effects of this first group of investments will be as follows:

¹¹ The new RES support scheme that will be implemented as of 2016 is currently being discussed with Poland within the framework of the case SA.43697, and is outside the scope of this decision.

¹² The CHP support scheme, which is assessed in the case SA.36518, is not covered by this decision. However, the potential discrimination against imported electricity was estimated for both RES and CHP support systems, and a common solution was proposed for both support schemes.

¹³ The Polish authorities indicated that the new electricity connection between Poland and Lithuania was not taken into account for the purpose of calculating the potential discrimination for the period 2005-2015, since the interconnector was not operational before the end of 2015.

¹⁴ while Germany is expected to instal PST in the German substation Vierraden on the 400 kV cross-border line Krajnik-Vierraden, since PST are needed on both connection points.

- regulation of unplanned flows from German power system towards Polish power system to safe levels;
 - increase of cross-border power exchange capacity over synchronous border of 1500 MW (export) and 500 MW (import).
- (52) Second group of investments includes the construction of new internal 400 kV lines in the western part of Poland concerning expansion of the transmission network in the vicinity of existing connections with German power system. Until now the following investments are included in the National Transmission Network Development Plan (PRSP):
- construction of double 400 kV line Krajnik – Baczyna;
 - construction of double 400 kV line Mikułowa – Świebodzice;
 - construction of double 400 kV line Mikułowa – Pasikowice.
- (53) According to Poland, such expansion of the internal network in western part of Poland will increase reliability and capabilities of power take-off from the generation sources (especially renewables) in the horizon of 2021. However, these investments do not guarantee an additional effect of increasing cross-border transmission capacity.
- (54) In order to ensure growth of the cross-border capacity on the Polish synchronous profile it is necessary to implement the additional internal line – double circuit 400 kV line Baczyna – Plewiska (app. 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 estimated cost of construction of the line is app. PLN [...] * mln (EUR [...] mln), exceeding by far the estimated amount of potential discrimination against imported RES electricity.
- (55) The common effect of implementing the investments from the first and second group for increasing the transmission capacity on the Polish – German/Czech/Slovak border is 2000 MW (import and export).

* Business secret

2.2. Reduction of burdens arising from the renewables certificate obligation for energy intensive users

2.2.1. Scope

(56) Poland indicated that the certificates of origin represented in 2011 almost 10 % of the structure of electricity costs for industry. The share of other cost components broke down as follows:

- net electricity generation price ('black' energy), around 66 %;
- excise duty, almost 7 %;
- transmission charges, more than 13 %;
- CHP certificates, about 4 %.

(57) The support scheme for EIUs is designed to reduce the significant burden created by the certificates of origin on the electricity price for industry in Poland. In the view of the Polish authorities, maintaining the full certificates of origin requirement for energy-intensive undertakings increases the risk of irreversible economic and social impacts in the event of closure. In the absence of such a support these companies are likely to become less competitive and, as a consequence, will be forced to cease trading or to relocate the production to countries with less restrictive environmental protection standards. Any decision to relocate production outside Poland would entail serious economic consequences for the region in which the plant operates, but also for the country as a whole, in the form of a significant reduction in revenue from taxes and environmental charges (which finance environmental and climate change policies) and an increase in social expenditure to mitigate the social impact of closing energy-intensive companies. It would also trigger a transfer of emissions to countries where there are no environmental limits or where these are not as stringent, thus contributing to a growth in emissions and in the overall level of environmental pollution.

2.2.2. Legal basis

(58) The national legal basis is the Act of 26 July 2013 Amending the Energy Law and Certain Other Acts, and the RES Act of 20 February 2015.

2.2.3. Beneficiaries

(59) The reduction of burdens arising from the certificate system may apply exclusively to industrial customers representing specific industries. Beneficiaries are undertakings active in sectors included in Annex 3 to the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG)¹⁵. Based on the estimations provided by Poland, approx. 940 undertakings will benefit from the reductions.

¹⁵ Guidelines on State aid for environmental protection and energy 2014-2020, OJ C200 of 28.6.2014, p.1

(60) All undertakings active in the sectors listed in Annex 3 to the EEAG with an electro intensity of at least 3 % will be entitled to the reductions. The level of the reductions will vary depending on the share of electricity costs in the gross value added per unit of the undertaking concerned. Thus, at the level of a single sector, the level of the reductions will depend on the electro intensity rate.

(61) The following different levels of the reductions depending on electro intensity will apply – for industrial customers for which the cost of electricity in the three calendar years preceding the year in which the obligation to finance the RES support system is fulfilled amounted to:

- an electro intensity no less than 3 % and no more than 20 %: the obligation to obtain and redeem certificates is fulfilled with respect to 80 % of electricity purchased for own use in the year in which the obligation is fulfilled;
- an electro intensity higher than 20 % but no more than 40 %: the obligation to obtain and redeem certificates is fulfilled with respect to 60 % of electricity purchased for own use in the year in which the obligation is fulfilled;
- an electro intensity higher than 40 %: the obligation to obtain and redeem certificates is fulfilled with respect to 15 % of electricity purchased for own use in the year in which the obligation is fulfilled.

(62) It follows that the aid intensity will be

- 20 % for beneficiaries with an electro-intensity between 3 % and 20 %,
- 40 % for beneficiaries with an electro-intensity between 20 % and 40 % (strictly above 20 %) and
- 85 % for beneficiaries with an electro-intensity above 40 %.

(63) There are no other eligibility criteria. However, a threshold of 100 GWh annual consumption will be applied to industrial customers, but only with regard to the administrative management of the reductions. Industrial customers who consume at least 100 GWh per annum will be required to settle the obligation to redeem certificates by themselves (see recital 21), whereas industrial customers who consume less electricity per annum will benefit from the reductions through electricity suppliers. Poland explained that this solution for administrative management of the reductions was chosen in view of avoiding the need to increase employment at the Energy Regulatory Office.

2.2.4. Budget

(64) The annual budget of the notified measure in favour of EIUs was estimated by Poland at approx. PLN 450 million. Poland insisted that the budget concerned is an estimate in view of the fact that the price of the certificates of origin is determined on the market and should not be considered a maximum budget. Based on the data available for 2013, Poland calculated that 940 undertakings would be eligible and the total value of the reductions estimated on the basis of the amount of the compensation fee would be PLN 448 million.

2.2.5. *Functioning*

- (65) Support will be provided in the form of a reduction for energy-intensive industries of the obligation to obtain and present for redemption certificates of origin, or to pay a compensation fee.
- (66) As a general rule, industry customers are subject to the obligation to obtain and present for redemption certificates of origin to the URE President or to pay a compensation fee.
- (67) In accordance with the Energy Law, the scope of the obligation is related in the case of sellers of electricity to the amount of that electricity sold to final customers and, in the case of final consumers purchasing energy on the exchange and industry customers, to the volume of electricity purchased.
- (68) Within the general frame of reference in Poland, the scope of the obligation is determined by the Minister for the Economy under the relevant regulations and defined on the basis of the national targets adopted in respect of the generation of electricity from RES.
- (69) The price of certificates of origin on the market is influenced by the level of the purchase obligation, and the strategy adopted by obligated entities for settling the obligation by redeeming an appropriate number of certificates or by paying the compensation fee.
- (70) The Polish authorities clarified that the reduction of the scope of the obligation for EIUs will not affect the targets relating to the share of electricity produced from RES, and the number of certificates of origin issued will not be reduced. In particular, the notified measure does not entail a partial loss of income on the part of RES generators from the sale of the certificates of origin. Nevertheless, the respective reduction will involve an increase of the scope of the obligation for other entities obliged to present certificates of origin for redemption or pay the compensation fee.
- (71) In addition, autogenerators have de facto benefitted of reductions from the burden related to the RES financing, since, in line with the Polish legislation the users of electricity only contribute to financing of the RES support system for the part of electricity they take from the grid. It follows that for the electricity that is autogenerated and autoconsumed, the users do not contribute to the financing of the RES support system. On the other hand, were such autogenerators to produce RES electricity they would benefit from the RES support scheme.
- (72) The Polish authorities informed the Commission that the electricity taken from the grid represents, on average, 66.25 % of the total electricity consumed by autogenerators. The electricity taken from the grid is in 100 % charged with the fees associated with the RES support system, meaning that the autogenerators fully participate to the financing of the RES support system with respect to the electricity taken from the grid. The Polish authorities confirmed that unit (individual) data from different statistical reports show that in Poland energy-intensive autogenerators bear at least 15 % of the costs of the RES support system, while other autogenerators bear at least 20 % of these costs.

2.2.6. *Duration*

- (73) In accordance with the Law amending the Energy Law and certain other laws, the burden reduction mechanism will come into operation from the day of publication of a favourable decision of the Commission. However, the Polish authorities have not provided an end date for this measure.

2.2.7. *Cumulation*

- (74) The Law introducing a reduction in the obligation concerning certificates for energy-intensive undertakings does not preclude the possibility of granting State aid to those undertakings.

2.3. **Complaints**

2.3.1. *Formal complaint*

- (75) The Commission has received on 9 August 2013 a complaint regarding aid to co-firing and old hydropower plants in Poland from a RES producer.
- (76) The complainant argues that the RES support scheme entails State aid on the basis of previous Commission case practice and the Dutch NOx¹⁶, Italy v Commission¹⁷, and Steinike & Weinlig¹⁸ case law.
- (77) According to the complaint, co-firing installations are the only ones that do not require the beneficiary to construct electricity generation facilities and the fact that they receive the same level of support as other technologies is selective and discriminatory.
- (78) According to the complaint, old hydropower plants receive illegal and incompatible State aid due to the fact that they are fully depreciated. The complainant provided a list of old hydropower plants built between 1912 and 1997¹⁹.
- (79) Moreover, the complainant argues that co-firing installations are overcompensated and the aid does not have an incentive effect. This is due to the fact that they would not require any support or a level of support at only 13 % of the value of a certificate of origin. The complaint claims that the level of support offered was determined irrespective of the actual costs of co-firing installations. In support of the overcompensation claims, the complainant mentions calculations of the Institute for Renewable Energy in Warsaw which showed that new co-firing installations do not require support. At the same time, the complainant mentions that Regulatory Impact Assessment for the new RES support legislation which finds that co-firing would have required 0.30 of the value of one certificate of origin in 2013 and 0.15 in 2017.

¹⁶ C-279/08 P - Commission v Netherlands, EU:C:2011:551

¹⁷ C-173/73 - Italy v Commission, EU:C:1974:71

¹⁸ C-78/76 - Steinike & Weinlig, EU:C:1977:52

¹⁹ The list also contains a plant built in 1797.

(80) The complaint quotes co-firing costs used by the Institute for Renewable Energy in its report:

IPCC	22-67 \$/MWh	72,60-221,10 zł/MWh
IEA	80-120 \$/MWh	264,00-396,00 zł/MWh
IRENA	44-130 \$/MWh	145,20-429,00 zł/MWh

(81) The complainant claims that some of the co-firing and hydro power plants should have been subject to individual State aid notifications due to their size as they have an installed capacity exceeding 125 MW.

(82) The complainant argues that the certificates received by co-firing installations and old hydropower plants have caused an oversupply of certificates of origin on the market bringing their price significantly down. This, in turn crowds out other RES technologies that would require higher levels of support in order to be viable.

(83) The Commission had several exchanges with the complainant and with the Polish authorities regarding the claims of the complainant. In response to the costs calculations submitted by the Polish authorities as calculated by Ernst and Young, the complainant argued that its co-firing levelized cost estimate, of [730-790] PLN/MWh, is higher than any reported data to date. Moreover, the costs calculated by Ernst and Young would be at odds with the previous position of the Polish Ministry of Economy in the Regulatory Impact Assessment, the study of the Institute for Renewable Energy and the sources quoted therein.

(84) In regard to hydro power plants, the complaint argues that the Ernst and Young calculations are contradicted by analysis performed by the Institute for Renewable Energy. Ernst and Young calculated a levelized cost of [540-640] PLN/MWh in 2013 for large old hydropower plants while the Institute for Renewable Energy mentions the cost to be 143 PLN/MWh in 2012. The complainant claims that old hydropower plants, like co-firing installations, will continue even without support since they are the least expensive RES producers.

2.3.2. *Market information*

(85) On 15 July 2014, the Commission received market information regarding the measure from four environmental organizations. The information concerns State aid in the form of certificates of origin granted to co-firing power plants that add biomass to their coal boilers.

(86) The environmental organizations claim that the Polish CO system entails State aid as the Polish State established the certificates of origin as assets with an economic value and as they are granted to RES energy producers for free. The State is thus waving revenues.

(87) In the view of the environmental organizations the PreussenElektra case-law²⁰ does not apply in the case at hand since the Polish CO system engages state enterprises, which are controlled by the Polish State.

²⁰ C-379/98 PreussenElektra, ECLI:EU:C:2001:160

- (88) The environmental organizations claim that the measure entails a selective advantage to RES electricity producers and in particular to biomass and coal co-firing power plants. The measure would also entail an indirect advantage to investments in electricity generation from coal and investments in new coal-fired units. The measure would also distort or threaten to distort competition and affects trade between Member States.
- (89) The support to co-firing installations is claimed not to be compatible with the internal market since it is not necessary, it does not have an incentive effect and it leads to overcompensation of the respective installations.
- (90) According to the environmental organizations who provided calculations based on publicly available data, the co-firing power plants have been overcompensated with PLN 5.168 billion between 2005 and 2012. In addition aid for such plants lacks justification as they do not bring any new power capacity to the system. The overcompensation would amount to 147.45PLN per MWh.
- (91) The environmental organizations also claim that overcompensation occurs also due to the cumulation of different support measures: operating aid by way of certificates with investment aid. A list of investment aid measures granted to co-firing power plants is appended to the information.

2.3.3. The position of the Polish authorities

- (92) The Polish authorities claim that the RES support scheme has achieved its scope as at the end of 2006 total RES installed capacity in Poland amounted to 678 MW, while in 2014 it amounted to 5000 MW.
- (93) The Polish authorities argue that the CO system does not favour one technology, but allowed for competition between the respective technologies. The Polish authorities provided examples of Commission case practice regarding support systems that do not differentiate between technologies²¹.
- (94) The Polish authorities argue that Member States have the right to determine their energy mix and the RES technologies which allow for the achievement of the national target at a lower cost and, hence, the selection made by Poland cannot be contested on the basis of the State aid provisions of the Treaty.
- (95) The Polish authorities provided information regarding the average electricity prices in the period between 2006 and 2013 and the average cost of 1MWh of RES electricity for co-firing and hydropower installations that are typical for Poland.
- (96) The Polish authorities argue that none of the types of RES installations developed in Poland would have been viable without the certificates of origin.
- (97) According to the Polish authorities, the cost of electricity generation from biomass in co-firing units and the cost of electricity generation in hydropower plants were calculated according to the method of the levelized cost of energy (LCOE).

²¹ SA.13330 – United Kingdom - Renewables obligation and Capital Grants for Renewables Technologies, SA.15035 – Sweden – Green certificates and SA.18903 – Belgium - Flemish CHP - Certificates

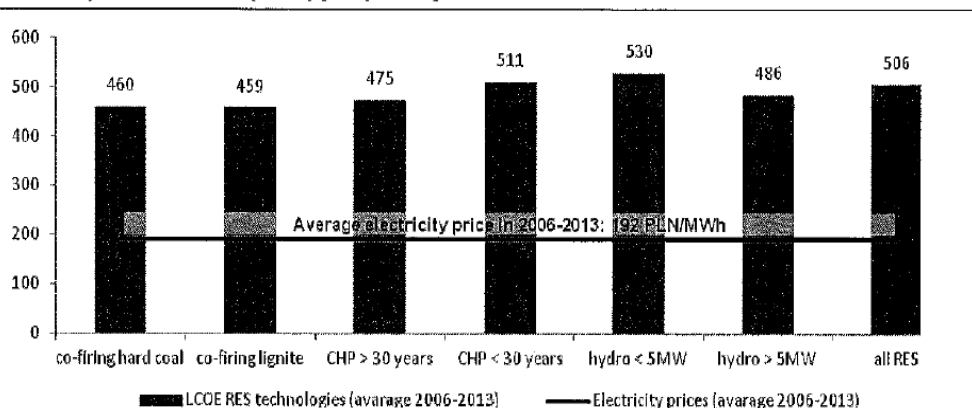
Operating costs were determined on the basis of ex post data from reports of the units' operators to the Central Statistical Office ("GUS") and the Energy Market Agency ("ARE"), inclusive of the fluctuations of the market price of biomass in 2006-2013. The calculations have as source an Ernst and Young study based on data subject to statistical confidentiality from GUS/ARE received from the Polish Energy Association and investment standards ("EY study"). Ernst and Young received GUS/ARE reports from 10 principal entities operating on the electricity market in Poland. Therefore, as opposed to the complainant, EY study based on official statistics for its calculations.

(98) The collected data regarding co-firing concern:

- gross installed capacity in main activity producer hard-coal and lignite electricity plants equal to 24.5 GW (more than 97 % of the installed capacity in such units in the country);
- gross installed capacity in cogeneration plants equal to 4.1 GW (approximately 70 % of the installed capacity in such units in the country).

(99) Operating and cost data for hydropower plants were determined on the basis of studies of the Hydropower Plant Association (Towarzystwo Elektrowni Wodnych), taking into account data published by trade and specialist institutions and consultations with unit operators.

Table 2a. Market electricity prices in 2006-2013 and average generation cost of 1 MWh of electricity in RES sources (LCOE) [PLN/MWh]



CHP LCOE calculated taking into account income from green and red certificates. Source: EY study.

Figure 3 – Market electricity prices and RES production costs

(100) The weighted average cost of capital (WACC) was calculated identically for all the technologies and amounts to 8 % pre-tax without inflation.

(101) The Polish authorities submitted the costs and revenues per 1 MWh of energy generated in all RES units, co-firing plants using biomass, and hydropower plants, in the period of 2006-2013. They claim that, on average, RES producers achieve a return of capital lower than their WACC (8 %), and have therefore achieved a return on capital lower than what would be justified by the level of risk incurred.

Table 1 – RES production costs compared to revenues (in PLN)

	Power plants		CHP plants ²²		Hydropower		All RES technologies
	hard coal	lignite	> 30 year s	< 30 year s	HP ≤ 5 MW	HP > 5 MW	
LCOE (average value from the period from 2006 to 2013)	460	459	475	511	530	486	506
Revenues	459	459	459	459	459	459	459
Market energy prices	192	192	192	192	192	192	192
Market prices of the certificates of origin	267	267	267	267	267	267	267
Rate of return on investment at average revenue level	7.93 %	8.00 %	6.76 %	5.43 %	6.04 %	7.46 %	5.73 %

Source: EY study

- (102) Poland confirmed that, in accordance with accountancy rules, none of the co-firing and hydropower plants benefiting from the CO system are fully depreciated. However, the data provided by the Polish authorities does not reflect the amount actually registered as depreciation by the beneficiaries, but reflects the depreciation amount that should have been registered if the International Financial Reporting Standards (IFRS) were applied. The Polish authorities explained that the tax depreciation rates historically applied in Poland were substantially higher than the accounting rates arising from the IFRS and did not reflect the actual useful life of the fixed asset; the book value of the assets did not reflect their fair value as per the IFRS as it was not subject to restatement in the hyperinflationary periods²³, which means that the gross value of the assets, which was growing in line with the inflation rate, was not updated for accounting purposes, as a result of which even the relatively high depreciation rates calculated on an non-updated (low) asset value, prevented the real value of the assets from being reflected.
- (103) The Polish authorities confirmed that in all co-firing and hydro power plants older than 30 years, modernisation expenditure was incurred in an amount representing 25-40 % expenditures on new units. The level of non-depreciated expenditures in those units is more than 40 % on average. Units not older than 30 years also have at least 40 % undepreciated expenditure from construction and, in case of co-firing plants, also undepreciated expenditure from the biomass co-firing installations.

2.3.3.1. Hydroelectric power plants

- (104) The Polish authorities argue that none of the hydropower plants included in the CO system is depreciated. In particular, older hydropower plants had to perform refurbishments in accordance with their water permit requirements.

²² CHP plants using biomass and receiving also certificates of origin are included in the calculation. The LCOE for CHP plants excludes the revenue from the CHP certificates and heat.

²³ A major revaluation of assets was made only in 1995, which means that for nearly 20 years (i.e. since 1975, when the inflation rate began to grow significantly, providing a case for regular asset revaluations), the real depreciation value (despite the high depreciation rates) was very low.

- (105) The Polish authorities argue that all existing hydroelectric installations have conducted major refurbishment investments between 2005 and 2014 and new plants have been constructed. Poland explained that based on data obtained from energy groups representing about two thirds of the installed capacity of hydro power plants in Poland, it may be established that the expenditure on construction and upgrade of hydro power plants in the years 2005-2014 exceeded PLN 1 billion. In the years 2005-2014, new hydro power plants were built, and all the existing ones were upgraded. To substantiate their claims, the Polish authorities presented data regarding all hydroelectric power plants in Poland (747 in total) and their refurbishment/new built status.
- (106) Poland was not able to confirm that all hydro power plants that received certificates of origin under the 2005 support scheme made the respective upgrades after they obtained the right to receive certificates of origin. Instead, Poland explained that before 2005 there was another support scheme in place for renewables, and in the event some hydro power plants made investments before they obtained the right to receive certificates of origin, they have done so only based on the support they were receiving and the expectations that the respective support will continue.
- (107) According to Poland, if refurbished hydropower plants did not benefit from the revenues of the RES support schemes they would not have performed the refurbishment investments and, in consequence, the generating capacity of these plants would have decreased.
- (108) The Polish authorities showed that they had introduced the first RES support system in 1999 by way of the Energy Act of 10 April 1997. In that period the beneficiaries were almost exclusively hydroelectric power plants. The scheme was not limited in time and was based on an RES acquisition quota mechanism imposed on energy trading companies. The quota was to increase year by year and reach 7.5 % in 2010 and subsequent years. This scheme ensured RES producers that they could obtain long term support and, on this basis, they decided to build new installations or modernize the existing installations.
- (109) The Polish authorities submit that the support obtained by RES producers under the 1999 system (approx. PLN 160/MWh) corresponds to the support obtained under the 2005 support system (average value of the certificates of origin).
- (110) In 2005, the former scheme was replaced with the CO system which is considered to be its continuation.
- (111) The Polish authorities claim that no overcompensation has arisen as regards to hydropower plants.

Table 2 - Average LCOE for hydropower plants in 2012²⁴

Unit		HP > 5 MW		HP ≤ 5 MW	
		HP > 40	HP < 40	HP > 40	HP < 40
Outlays on existing unit	PLN/kW	[11 000 – 13 000]	17 000 - 21 000]	[9 000 - 12 000]	[14 000 – 17 000]
Fixed operating costs	PLN/kW/year	[70 - 130]	[70 - 130]	[500 – 900]	[500 - 900]
Existing unit life	years	40	60	40	60
Time of generating capacity use	hours/year	2 500	2 500	3 400	3 400
WACC = discount rate	%	8.00 %	8.00 %	8.00 %	8.00 %
Variable cost	PLN/MWh	0	0	0	0
Fixed operating costs	PLN/MWh	[30 – 50]	[30 – 50]	[180 – 220]	[180 – 220]
Capital costs	PLN/MWh	[380 – 440]	[590 – 640]	[240 – 300]	[360 – 420]
LCOE	PLN/MWh	[410 – 490]	[620 – 690]	[420 – 520]	[540 – 640]
Average ²⁵ for groups	PLN/MWh	[470 – 500]		[510 – 560]	
Average for all hydropower plants	PLN/MWh	[490 – 530]			
Total revenue	PLN/MWh	[420 – 480]		[420 – 480]	
• from electricity	PLN/MWh	[190 – 210]		[190 – 210]	
• from certificates of origin	PLN/MWh	[230 – 270]		[230 – 270]	

Source: EY Study

- (112) Poland also provided the financial calculations for a typical hydropower plant (a hydro power plant with a capacity of 20-200 MW, built more than 30 years ago).
- (113) All these calculations show that the profit margin achieved by the hydro power plants in the aggregate, as well as by a typical hydropower plant, does not reach 8 % return on capital.
- (114) The Polish authorities argue that there are no hydropower plants that would have required an individual State aid notification. Poland has only two hydropower plants with a theoretical installed capacity exceeding 125 MW (HP Solina and HP Włocławek), which are included in the CO system²⁶. However, this is not a real installed capacity as they are impoundment plants with a high surplus of installed capacity compared to the power generated by water flow.
- (115) HP Solina is equipped with a reversible pump turbine and operates as a pumped storage unit whereas the hydropower from water flow (i.e. the capacity for which certificates of origin are granted) does not exceed 12 MW.
- (116) HP Włocławek is greatly oversized in view of the water flow on which it is installed meaning that its real capacity is of [<100] MW.

²⁴ The Polish authorities show that data from 2012 is most relevant as in subsequent years the price of the certificates of origin and the energy prices dropped and therefore the revenues obtained from certificates of origin were significantly lower.

²⁵ The average values were calculated according to capacity share of the respective age groups.

²⁶ The rest of the plants listed in the information submitted by the complainant as having an installed capacity above 125 MW are pumped storage plants that do not qualify for receiving certificates of origin.

(117) The Polish authorities also add that these plants qualified for the current CO system in 2005 and, thus, any State aid to them should be assessed in accordance with the 2001 Community Guidelines on State aid for environmental protection²⁷ which did not establish a requirement of individual notifications for plants with a large installed capacity of RES.

(118) Moreover, the Polish authorities argue that the support received by hydropower plants is limited in case of use of pumping units, by their role in the national power grid, i.e. being used only in times of peaks in demand, and by the natural efficiency of barrages.

2.3.3.2. Co-firing power plants

(119) In order to receive certificates of origin a plant co-firing biomass could not use quality wood²⁸ and must use a defined share in weight of agro biomass²⁹.

Table 3 – LCOE for biomass co-firing plants in 2012³⁰

Category	Unit	Hard coal-fired power plants	Lignite-fired power plants
Outlays on existing unit	PLN/kW	[3850 – 4150]	[4500 – 5100]
Fixed operating costs	PLN/kW/year	[140 – 180]	[220 – 260]
Additional investment expenditure	PLN/kW	[320 – 380]	[430 – 470]
Fixed operating costs	PLN/kW/year	[15 – 20]	[28 – 35]
Total fixed operating costs (without existing unit lifetime)	PLN/kW/year	[150 – 200]	[250 – 300]
Existing unit lifetime	years	30	30
The lifetime of a plant for co-firing	years	25	25
Time of generating capacity use	hours/year	4100	5500
Net electrical efficiency	%	[32 – 36]	[31 – 37]
Fuel consumption	GJ/MWh	[8 – 12]	[8 - 12]
Price of biomass	PLN/GJ	[28 – 36]	[28 – 34]
WACC = discount rate	%	8	8
Variable cost	PLN/MWh	[310 – 380]	[300 – 360]
Fixed operating costs	PLN/MWh	[30 – 60]	[40 – 60]
Capital costs	PLN/MWh	[85 – 110]	[80 - 90]
LCOE	PLN/MWh	[425 – 550]	[420 – 510]
Total revenue	PLN/MWh	[420 – 480]	[420 – 480]
from electricity	PLN/MWh	[190 – 210]	[190 – 210]
from certificates of origin ³¹	PLN/MWh	[230 – 270]	[230 – 270]

²⁷ Community Guidelines on State aid for environmental protection , OJ C 37 of 3.2.2001, p.1

²⁸ Quality wood is defined as wood that meets the quality requirements provided in the norms defining the requirements and testing for large-size deciduous wood, large-size coniferous wood and mid-size wood for categories marked S1, S2 and S3, and wood material produced by granulating that wood.

²⁹ Biomass from energy crops or waste and residue from agricultural production, from the industry processing its products, and from cereal grains which are not subject to intervention purchases, and also parts of other biodegradable waste, with the exception of waste and offal from forestry production and from the industry processing its products.

³⁰ The Polish authorities show that data from 2012 is most relevant as in subsequent years the price of the certificates of origin and the energy prices dropped and therefore the revenues obtained from certificates of origin were significantly lower.

Source: EY Study

- (120) The Polish authorities claim that no overcompensation has arisen as regards to co-firing power plants. They argue that power plants, in particular lignite power plants, achieved lower revenues from electricity sales than the market average.
- (121) The Polish authorities claim that no overcompensation has arisen as regards to CHP co-firing power plants. They provided calculations taking into account the revenues from heat and from the sale of CHP certificates and is divided in groups of typical generation units in Poland. Group CHP 1 consists of plants that are in the second half of their life-cycle (older than 30 years) whereas group CHP 2 consists of plants younger than 30 years. The average costs for 2012 are in all groups higher than the total revenue from electricity and certificates of origin which amounted to [420 – 480] PLN/MWh. The calculations were made in 2012 as all data were available from that year and it was the most favourable year for CHP plants in terms of revenues (no CHP certificates could be sold for 2013 and only partially for 2014).

Table 4 – Average LCOE for CHP plants co-firing biomass in 2012

Category	Unit	CHP1: Co-firing	CHP 2: Co-firing
Existing unit lifetime	years	30	40
The lifetime of a plant for co-firing purposes	years	25	25
Time of generating capacity use	hours/year	4000	4500
Net overall efficiency	%	[70-77]	[71-78]
Net electrical efficiency	%	[20-24]	[22-26]
WACC = discount rate	%	8	8
LCOE	PLN/MWh	[720 – 780]	[730 – 790]
LCOE (after deducting the income from heat and CHP certificates)	PLN/MWh	[480 – 520]	[510 – 560]
Average LCOE	PLN/MWh	[500 – 540]	
Total revenue, from which:	PLN/MWh	[420 – 480]	[420 – 480]
from electricity	PLN/MWh	[190 – 210]	[190 – 210]
from certificates of origin ³²	PLN/MWh	[230 – 270]	[230 – 270]

Source: EY Study

- (122) According to the Polish authorities the claims of the complainant regarding overcompensation of co-firing installations do not take into account the capital costs of these units such as the capital costs incurred for refurbishments and due to the period of hyperinflation in Poland. Moreover, the Polish authorities claim that the calculations in the complaint make an average of the fuel costs of electricity generation with the use of biomass in co-firing units, while certificates of origin are only granted for the electricity from biomass.

³¹ The assumed value corresponds to the value from 2012 – in 2013 and 2014 the price of certificates of origin fell to the level of 213 PLN/MWh and 200 PLN/MWh, respectively.

³² The assumed value corresponds to the value from 2012 – in 2013 and 2014 the price of the certificates of origin on the PPE fell to the level of 213 PLN/MWh and 200 PLN/MWh, respectively.

- (123) The Polish authorities claim that the Institute for Renewable Energy, in the study quoted in the complaint, performs calculations based on wrong assumptions which do not show the real average LCOE for co-firing plants in Poland.
- (124) According to the Polish authorities there was a drop in electricity generation from biomass in co-firing power plants in 2013 by 50 % due to the lack of profitability of production from more expensive biomass supplies while energy prices amounted to 185 PLN/MWh and the prices of the certificates of origin were in the range of 150-170 PLN/MWh. Given that the total revenue was of 335-355 PLN/MWh, the LCOE as calculated by the Institute for Renewable Energy at a level of 202.88 PLN/MWh would not be correct (since if it was correct, the co-firing power plants would have had a strong incentive to increase their electricity generation).
- (125) Poland also provided financial calculations for a typical co-firing plant (a power plant with a capacity of 1000-2000 MW, built more than 30 years ago).
- (126) All these calculations show that the profit margin achieved by the co-firing power plants, and by CHP plants co-firing biomass, in the aggregate, as well as that achieved by a typical co-firing power plant, is below 8 % return on capital.
- (127) According to the Polish authorities, the cumulation of support resulting from the fact of granting more than one type certificate per electricity unit does not and cannot lead to overcompensation as the CO system supports additional costs following from energy generation from RES, whereas the CHP support scheme covers additional costs related to the combined production of electric power and heat.
- (128) In response to the claims of the complainant that a co-firing LCOE of [730 – 790] PLN/MWh, is higher than any reported data to date, Poland explained that this refers to CHP co-firing. Biomass-fired CHP plants incur higher costs than non-CHP co-firing plants due to the fact that, despite their high overall efficiency, they have to use more fuel to obtain the same number of certificates of origin than biomass-fired condensing power plants with a similar installed capacity for electricity generation.
- (129) Moreover, the Polish authorities claim that the support for co-firing plants did not hinder the development of other RES technologies. All technologies have developed faster than forecasted in the National Action Plan for RES with the development of wind energy being the most dynamic.
- (130) The Polish authorities argue that there are no co-firing power plants where the installed capacity of the unit using biomass is higher than 125 MW.
- (131) The Polish authorities further show that co-firing plants will significantly help Poland to achieve its 2020 target. In 2013, co-firing units were part of power plants with a total installed capacity of 21 GW out of which only 2 GW will close by 2020 due to environmental requirements. In 2020 co-firing units will produce up to 10 TWh of energy from biomass.
- (132) As regards the cumulation of certificates with investment aid, the Polish authorities argue that this indeed is possible and has happened, but it did not lead to overcompensation. Investment aid was granted on the basis of 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 and in accordance with the aid intensities imposed therein. The Polish authorities submitted tables containing detailed calculations illustrating the cumulation of different forms of aid, to show that no overcompensation occurred in the aggregate. The Polish authorities also submitted specific data regarding specific examples.

Table 5 – Total investment aid and operating aid over the 15-year period under the CO system.

Level of investment support	Unit	Hydro power	Co-firing of biomass		Wind power plants		Biogas plants	
		All units	Electricity plants	CHP	≤10 MW	>10 MW	< 1 MW	≥ 1 MW
Maximum project value	mPLN/MW	38.0	4.5	7.0	10.6	8.6	29.6	20.9
Maximum investment support	%	60%	30%	17%	64%	38%	60%	60%
Capital cost	PLN/MWh	457.7	62.2	129.0	222.9	311.5	395.2	279.1
Average project value	mPLN/MW	14.5	3.4	5.4	6.8	5.9	14.0	13.9
Average investment support	%	44%	11%	12%	47%	19%	47%	45%
Capital cost	PLN/MWh	244.5	58.9	94.4	210.5	279.2	247.7	255.2
Fixed operating costs	PLN/MWh	101.7	39.9	0.0	200.0	150.0	114.3	114.3
Variable cost	PLN/MWh	0.0	287.7	370.0	0.0	0.0	307.5	307.5
Total costs- max. option	PLN/MWh	559.4	389.8	499.0	422.9	461.5	817.0	700.8
Total costs - average option	PLN/MWh	346.2	386.5	464.4	410.5	429.2	669.4	676.9
Revenues								
Projected electricity price	PLN/MWh	180	180	180	180	180	180	180
Projected heat price	PLN/MWh	90	-	90	-	-	90	90
Projected prices for certificates of origin	PLN/MWh	160	160	160	160	160	160	160
Projected red certificates price	PLN/MWh	-	-	10	-	-	10	10
Projected yellow certificates price	PLN/MWh	-	-	-	-	-	110	-
Projected purple certificates price	PLN/MWh	-	-	-	-	-	-	60
Total revenues	PLN/MWh	340	340	440	340	340	550	500.0

3. ASSESSMENT OF THE MEASURES

3.1. Existence of Aid

3.1.1. *The CO System to Support RES-electricity Producers*

- (133) Under Article 107(1) TFEU, 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, in so far as it affects trade between Member States, is incompatible with the internal market unless otherwise provided in the Treaties.
- (134) Poland considers that the CO system does not involve State aid and notified the reduction of burdens arising from the renewables certificate obligation for energy intensive users for legal certainty.
- (135) The Polish authorities consider that the CO system does not entail a transfer of State resources as it represents a resources exchange between private parties and the certificates of origin could not be auctioned or sold by the Polish State.
- (136) The Commission considers that the support to electricity produced from RES granted by way of certificates can constitute State aid within the meaning of Article 107(1) TFEU. It is why it has introduced a special section in its Guidelines setting out the conditions for the compatibility of such support mechanisms, based on certificates, with the Internal Market (see point 109 EAG 2008 and Section 3.3.2.4 EEAG).
- (137) In fact, for the measures subject to assessment, the State is granting certificates of origin for free to RES electricity producers. At the same time, the State creates a market for the certificates of origin by imposing on most of the electricity suppliers (obligated parties) to purchase a quota of those certificates of origin and thus creates a demand for the certificates of origin. The RES electricity producers receive an advantage, as they get certificates of origin for free and are able to sell them on the certificates market or to the obligated parties obtaining additional revenues. This support is aimed to favour RES electricity production as compared to electricity produced from other sources, and, as such, could distort the competition between producers of electricity. Electricity is widely traded between Member States. The support is therefore likely to affect the trade between Member States.
- (138) Contrary to the position expressed by the Polish authorities that the CO system scheme does not involve a transfer of State resources the Commission will demonstrate below that this is well the case for twofold reason. First, by granting certificates of origin for free to the RES-electricity producers while setting up a quota for obligated parties /creating a demand for those certificates, the State forgoes state resources (see section 3.1.1.1). Secondly, the control exercised by the State over the financial flows between the RES-electricity producers and obligated parties proves that the support comes from State resources (as already concluded by the Commission in the case SA.33995³³) (see Section 3.1.1.2). Both lines of

³³ See decision C(2014) 8786 final, section 7.1.3

reasoning elements lead independently from each other the Commission to the conclusion that State resources are involved.

3.1.1.1. The granting for free of certificates of origin

- (139) The Polish CO system functions on the principle that the State grants the certificates to the producers of electricity from renewable sources (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 (see recitals 18, 20). The acquisition obligation/ quota has been set up pursuant to Article 9a (1) and (9) of Energy Law in a Regulation of Minister of Economy.
- (140) Firstly, by giving certificates of origin for free to producers of RES electricity, the State is actually providing them, for free, with intangible assets. Secondly, the certificates of origin can be traded on a specific market (see recital 18) and by selling them to the obliged entities the producers of RES electricity obtain revenues.
- (141) In a judgement³⁴ from 8 September 2011, the Court of Justice observed that NOx emission allowances were tradable³⁵, 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.
- (142) In the case of the certificates of origin scheme in Poland 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 certificates of origin (redemption obligation). Similar as in the NOx case, here the legal framework creates³⁶, without real consideration supplied to the State, certificates, which, because of the demand created by the State and their tradable character, have an economic value.
- (143) The Court of Justice also found³⁷ 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.
- (144) The Commission considers that the same reasoning can be applied to the Polish CO system. The State has created tradable assets in form of certificates of origin and made them available to producers of RES electricity. Further, the State has conferred an economic value on them by creating a genuine market for the certificates of origin with a demand stemming from the quota imposed on certain

³⁴ C-279/08 P - Commission v Netherlands, EU:C:2011:551

³⁵ C-279/08 P - Commission v Netherlands, EU:C:2011:551, paragraph 88.

³⁶ Article 9° of Energy Law and Article 44 of RES Act.

³⁷ C-279/08 P - Commission v Netherlands, EU:C:2011:551, paragraph 107.

entities and determining the compensation fee³⁸. Instead of selling the certificates of origin or putting them up for auction, the State allocates the certificates of origin for free and thus it forgoes public resources.

- (145) In case of non-compliance with this redemption obligation, and in line with Article 56(1) of the Energy Law, the entities are liable for a fine (see recital 22). The fine, established at 130 % of the compensation fee effective for the respective year, aims to incentivise the obliged entities to purchase certificates of origin, and ensure therefore that there is a demand for those certificates.
- (146) In this respect, Poland argues that the certificates of origin simply ascertain the nature of RES electricity and could not be sold or put for auction. However, the Commission notes that the certificates of origin are commodities with a value in themselves. Thus they do not only certify the origin of a certain type of electricity as guarantees of origin pursuant to Directive 2001/77/EC and 2009/28/EC. By contrast to guarantees of origin the State has created here a quota obligation for certificates of origin 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.
- (147) The Commission considers that the above element alone suffices to conclude that the Polish CO 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.

3.1.1.2. The financing of the CO system and the general control of the State over the financial flow between the parties

- (148) 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"³⁹. In this sense, Article 107(1) TFEU covers all the financial means by which the public authorities may actually support undertakings, irrespective of whether or not those means are permanent assets of the public sector⁴⁰.
- (149) For the measure at hand the State establishes in detail throughout legally binding rules how the demand and supply of certificates of origin is formed, how the market for certificates of origin is organised, who can participate in it and how the financial flows are organised. The costs from the acquisition of certificates of origin by the obliged entities are passed on to final customers within the price of electricity sold, but it is the Energy Law and Ministerial Regulation provisions which allow for the pass-on of costs of the certificates of origin and fully regulates such pass-on in case of electricity sold by suppliers of last resort to households (see recital 27).

³⁸ See Article 9a of Energy Law and Articles 52 and 56 of RES Act.

³⁹ 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.

⁴⁰ 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.

- (150) Although the certificates of origin and, thus, the revenues obtained by the producers of electricity from RES, 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 involved⁴¹. 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 entity⁴².
- (151) 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 financing⁴³. 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 State⁴⁴. 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 State⁴⁵, in particular when aid is granted by public or private bodies designated or established by the State⁴⁶. The Court found State resources in case of funds financed through compulsory contributions imposed by State legislation and they were managed and apportioned in accordance with the provisions of that legislation⁴⁷.
- (152) This has been confirmed by the Court in the *Vent de Colère* case⁴⁸ 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.
- (153) In the light of those principles, the Commission has examined whether the financing of certificates of origin and the revenues of the producers of electricity from renewable energy sources stemming from their sales, involves State resources.
- (154) In the case of the Polish CO system although the financial flows take place between private parties (RES 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.

⁴¹ Judgement of 12 December 1996, *Air France v Commission*, T-358/94, EU:T:1996:194, paragraphs 63 to 65.

⁴² *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.

⁴³ *France v Commission*, EU:T:2012:496, point 63 and 64.

⁴⁴ *France v Commission*, EU:T:2012:496, paragraph 61.

⁴⁵ 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.

⁴⁶ *Sloman Neptun*, EU:C:1993:97, paragraph 19.

⁴⁷ 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.

⁴⁸ *Vent de Colère*, EU:C:2013:851.

- (155) The distribution operators or the TSO certify RES electricity producers as regards the amount of electricity produced. The President of URE issues and redeems certificates of origin, monitors if the quota obligation has been fulfilled by the obliged entities and sets the amount of the compensation fee.
- (156) The State designates in the legislation the entities obliged to redeem certificates of origin which are primarily generators and supply companies selling energy to end customers⁴⁹. They pass on the great part of the costs of the certificates of origin to end customers through the electricity prices. This ensures that obligated entities (in particular, electricity suppliers) do not have to bear financial burden for the purchase obligation in the entirety. The Ministerial Regulation adopted on the basis of Article 46 Energy Law establishes the methodology of the calculation of the amount of passing on the costs of certificate of origin to end-customers.
- (157) The Minister of Economy sets the level of the redemption obligation (certificates of origin quota) in its regulation.
- (158) In case of no purchase of certificates the obligated entities must fulfil their quota obligation by paying the compensation fee. The amount of this fee is defined on the basis of methodology set out by the Law and the President of URE defines each year its amount (see recital 19).
- (159) Lastly the non-compliance with the quota obligation is sanctioned with administrative penalties imposed by the URE President (see recital 22) at the level set by the URE President on the basis of methodology set out in the Ministerial Regulation.
- (160) On the basis of the above elements, the Commission considers that the obligated parties are administering the funds generated by the certificates of origin and the President of URE controls and monitors the funds generated by the certificates of origin, by issuing certificates of origin, 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 compensation fee.
- (161) It follows from the above that the CO system and its financing involve State resources. The Commission observes in particular that the State can control, direct and influence the administration of and their financing certificates of origin through generally applicable legal provisions and individual decisions used by 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.
- (162) The CO represent a benefit granted from State resources only to RES-E producers and therefore entails a selective advantage to such producers that would otherwise not be available to them. The CO system has been established and is regulated by way of legislative acts, being, thus, imputable to the Polish state.

⁴⁹ Since 2013, certain industrial consumers have been obliged to purchase certificates of origin so they finance the system directly. However, before 2013, they participated to the financing of the CO system indirectly as final electricity consumers by way of the electricity price they paid to suppliers.

- (163) Since the CO system strengthens the position of RES-E producers as compared to other electricity producers, the measure distorts competition.
- (164) Poland is interconnected with several of its neighbours and electricity is traded across borders, therefore the CO system could also have an effect on trade between Member States.
- (165) Taking into account the above, the Commission concludes that the Polish CO system constitutes aid within the meaning of Article 107 TFEU from its introduction in 2005.

3.1.2. The reduction of burdens arising from the renewables certificate obligation for energy intensive users

- (166) Measures which, in various forms, mitigate the charges which are normally included in the budget of an undertaking and which, without therefore being subsidies in the strict meaning of the word, are similar in character and have the same effect are considered to constitute aid⁵⁰.
- (167) The Court has also ruled that in the case of exemptions from charges, in order to prove that an advantage is selective, the Commission has to prove that the measure at stake creates differences between undertakings which, with regard to the objective of the measure in question, are in a comparable factual and legal situation. The concept of aid does not encompass measures creating different treatment of undertakings in relation to charges where that difference is attributable to the nature and general scheme of the system of charges in question⁵¹. The burden of proof for that latter part of the test is on the Member State.
- (168) As explained above in recital 21, before 2013 the normal rule was that all energy companies engaged in electricity generation or trading which sell this energy to end customers had to acquire a mandatory quota of certificates of origin, whose cost they then recover from the end consumers through the electricity bills. Therefore all consumers had to bear the cost of financing RES in the same manner. After 2013, the system changed and EIUs that consume more than 100 GWh of electricity participate directly to the financing of the RES support system as they are obligated to purchase a certain quota of certificates of origin directly. EIUs consuming less than 100 GWh of electricity continue to participate to the support by way of their electricity bills.
- (169) EIUs (from eligible sectors, with an electro-intensity not less than 3 %) are advantaged because they are partially exempted from the obligation to obtain and present for redemption certificates of origin, or to pay the compensation fee or from the cost of certificates of origin in their electricity bill. The Energy Law, as amended by the RES Act, therefore relieves them from a burden related to the financing of the CO system that they would normally have to bear in the same way as all other electricity consumers.

⁵⁰ Judgements in *Banco Exterior de España*, C-387/92, EU:C:1994:100, paragraph 13, and in *Belgium v Commission*, C-75/97, EU:C:1999:311, paragraph 23.

⁵¹ Judgement in *Netherlands v Commission*, C-159/01, EU:C:2004:246, paragraph 42; Judgement in , *NOx emission trading scheme*, C -279/08 P, EU:C:2011:551, paragraph 62.

- (170) In order for a measure to fall under Article 107(1) TFEU, it must be selective, i.e. favour certain undertakings or the production of certain goods.
- (171) The measure is selective because only EIUs as defined in the legislation can benefit from it. Based on the estimations provided by Poland, approx. 940 undertakings will benefit from the reductions.
- (172) Beneficiaries are undertakings active in the sectors listed in Annex 3 to EEAG with an electro intensity of at least 3 % and are active in sectors in which trade between Member States takes place. The measure is therefore liable to distort competition and affect trade between Member States.
- (173) The reduced RES financing for EIUs is imputable to the State, as it is established by legislation. In addition, it is the State (through the President of URE and the Minister of Economy) that grants the entitlements to EIUs and that monitors its correct implementation.
- (174) The autogenerators are also part of the system: for the electricity that is autogenerated they are entitled for support under the RES support scheme, like any other electricity producer; therefore they should contribute to the financing of the scheme not only for the electricity taken from the grid, but also for the autogenerated electricity. As currently designed, the Polish system however provides a selective advantage to autogenerators, as they contribute to the financing of the CO system only for the electricity taken from the grid (as described in recital 71).
- (175) For advantages to be categorised as aid within the meaning of Article 107 TFEU, they must be granted directly or indirectly through State resources. The Commission has already established in Section 3.1.1.2 above that the financing of the Polish CO system entails State resources. The reductions that EIUs will benefit from are, like the CO system, financed by the end-customers as they ultimately have to carry the burden in their electricity bills under the administration of the obliged entities (in particular, electricity suppliers).
- (176) For all the reasons set out above, the Commission comes to the conclusion that the reduction of burdens arising from the renewables certificate obligation for energy intensive users involves State resources. The Commission observes in particular that the State can control, direct and influence the administration of the RES support reductions at stake: the State intervenes at both the level of the advantage and its financing. The State has defined to whom the advantage is to be granted, the eligibility criteria and the level of support, but it has also determined the financial resources to cover the costs of the support.

3.2. Legality of the Aid

- (177) Poland has implemented the CO support system since 2005. The Commission regrets that Poland put the aid measure providing support to RES electricity producers into effect, in breach of Article 108(3) TFEU. Thus the aid in form of certificates of origin is illegal.

(178) On the other hand, the Commission notes that Poland has not implemented the aid measure providing support to EIUs, and has indicated that this measure will only be implemented after the approval of the Commission. For the reduction of burdens arising from the renewables certificate obligation for EIUs Poland respected its obligation under Article 108(3).

3.3. Compatibility of CO System

3.3.1. Legal Basis for Assessment

(179) The Commission notes that the Polish CO system aims at promoting the generation of electricity from RES. Consequently, this aid measure falls within the scope of the EEAG. The Commission has therefore assessed this measure on the basis of the general compatibility provisions of the EEAG (set out in its section 3.2.) and the specific compatibility criteria for aid granted by way of certificates (section 3.3.2.4. of the EEAG).

(180) In line with point 248 of the 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 until 1 July 2014 based on the provisions of the 2001 EAG⁵² and of the 2008 Community Guidelines on State Aid for Environmental Protection (2008 EAG)⁵³, and the compatibility of the aid granted after 1 July 2014 based on the provisions of the EEAG.

(181) All the points relevant for the State aid assessment raised by the complainant and in the submissions received from the four environmental organisations are addressed in the sections 3.3.2., 3.3.3 and 3.3.4 below.

(182) The CO system was put in place by Poland with the objective to promote the generation of electricity from RES in order to achieve the indicative targets pursuant to Directive 2001/77/EC and the RES binding targets set up by the Directive 2009/28/EC. Electricity can be generated from RES in dedicated power plants, using various RES technologies, but also in multi-fuel installations, such as co-firing installations (burning biomass along fossil fuels). All electricity generated from RES, including the part corresponding to the RES used in multi-fuel installations) could be accounted towards the 2010 indicative targets and 2020 binding targets. In view of the environmental objective pursued, the measures fall within the scope of the Guidelines on Environmental Aid adopted by the Commission in 2001, 2008 and 2014.

3.3.2. Compatibility of the aid measure with 2001 EAG

(183) The 2001 EAG provisions apply to the aid granted until 1 April 2008. Under section E.3.3. of 2001 EAG (Rules applicable to operating aid for renewable energy), under Option 2, Member States may grant support for electricity from renewable energy sources by using market mechanisms such as green certificates or

⁵² Official Journal C 37, 03.02.2001, pages 3-15

⁵³ Community Guidelines on State aid for environmental protection, OJ C82 of 1.4.2008, p.1

tenders. These systems allow all renewable energy producers to benefit indirectly from guaranteed demand for their energy, at a price above the market price for conventional power. The price of these green certificates is not fixed in advance but depends on supply and demand.

- (184) The 2001 EAG further clarified that where such systems constitute State aid, they may be authorised by the Commission if Member States can show that support is essential to ensure the viability of the RES concerned, does not in the aggregate result in overcompensation for RES-electricity and does not dissuade RES-electricity producers from becoming more competitive.
- (185) Poland has argued that the support is essential to ensure the viability of the RES concerned since the generation costs for producing electricity from RES largely exceed the market price of electricity (see recital 96 and figure 3), and does not in the aggregate result in overcompensation for renewable energy (see table 1). In particular, as regards hydroelectric and co-firing power plants, Poland has presented extensive information showing that in aggregate the support system does not result in over compensation (see tables 2 to 4). Data have also been presented as regards typical plants. Furthermore, Poland argued that since the CO system does not guarantee the value of support, producers are motivated to improve their efficiency and competitiveness, to avoid eventual problems during the periods of reduction in the value of the certificates of origin (such as the necessity to stop energy generation, and bankruptcy).
- (186) The Polish authorities have further argued that the profitability calculations submitted by the complainant and the market information received by the Commission would not be accurate. Firstly, contrary to the calculations used by the Polish authorities from the EY Study, the data submitted by the complainant and the market information received by the Commission do not base themselves on the real costs incurred by the installations as reported to GUS/ ARE which are covered by statistical confidentiality. The EY Study takes into account fluctuations of the market price for biomass for 2006-2013, but use the prices actually paid by the installations. Secondly, the calculations submitted by the complainant and the market information received by the Commission do not take into account correctly the capital costs incurred by the installations as refurbishments are not included and neither is the period of hyperinflation that Poland experienced at the beginning of the '80s, at the end of the '80s and in the first half of the '90s. Thirdly, taking fuel costs as an average between coal and biomass is incorrect as only the electricity produced from biomass benefits from certificates of origin. Finally, the Polish authorities argued that the calculations performed by the Institute for Renewable Energy take into account incorrect assumptions. This is in their view most evident for 2013 where co-firing installations diminished by 50 % the amount of electricity from biomass produced due to the increased costs of biomass in that year. If the calculations performed by the Institute for Renewable Energy were accurate, this drop in 2013 would not have taken place as the plants would have been very profitable.
- (187) The Commission notes that point 58 of the 2001 EAG clearly states that in the renewable energy field the investment costs are particularly high. In line with point 59 of the 2001 EAG, Member States may grant aid to compensate for the difference between the production costs of renewable energy (i.e. covering both investment

costs and operating costs) and the market price of the form of energy concerned. The costs taken into account by Poland are in line with this methodology.

- (188) The Commission considers that, on the basis of production costs of all RES technologies provided in Table 1 above, the measure at stake indeed ensures the viability of the RES technologies and given the flexibility of the values of the certificates of origin does not dissuade RES-electricity producers from becoming more competitive. Thus the two EAG 2001 compatibility conditions can be considered as satisfied.
- (189) As regards the condition that the support must not in aggregate result in overcompensation for renewable energy the Commission notes the following:
- (190) The LCOE calculations submitted by the Polish authorities, taking into account real costs of the installations (see table 1), are more accurate in assessing the profitability of such plants and the absence of overcompensation in the aggregate. Poland has explained and justified all the costs elements included in the calculation of the LOCE: operating costs (fixed and variable), investment costs (for existing hydro power plants and co-firing plants the investment costs related to upgrading and modernisation of the plants where considered, and in the case of co-firing such costs were proportionally distributed between the electricity generated from biomass and the electricity generated from fossil fuels). Poland has also provided details about the methodology for estimating the investment costs and the methodology used to calculate the annual depreciation. At the request of the Commission, Poland submitted detailed calculations for hydro power plants and co-firing plants, as well as examples of typical hydro and co-firing plants.
- (191) For the period 2005-2008 the information submitted by Poland (see table 1) show there was no overcompensation, as the LOCE (including an 8 % rate of return) was higher than the revenues obtained by the beneficiaries from selling electricity and certificates of origin on the market. In fact, the beneficiaries obtained a rate of return between 5.43 % and 7.46 %, which is lower than the rate of return obtained by power plants using hard coal and lignite (between 7.93 % and 8 %).
- (192) 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. The Commission notes that before 2008 there was no investment aid granted to the beneficiaries. According to the information submitted by Poland, investment aid has been granted after 2008, based on 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 (see recital 132). Cumulation with CHP certificates was possible, but the Polish authorities have taken this into account in the calculation of the LOCE in the Table 1, and the level of the LOCE was adjusted by deducting the value of CHP certificates, as well as the revenues from heat. Based on the above the Commission considers that there was no overcompensation in the aggregate in the period 2005-2008.
- (193) The Polish authorities have demonstrated that the cumulation of certificates of origin with CHP certificates does not lead in aggregate to overcompensation for co-firing CHP installations. This is also due to the fact that certificates of origin serve to compensate the extra costs of using biomass, while CHP certificates are used to compensate for the higher costs incurred from the specific technology enabling the

combined production of heat and power. Poland had deducted the revenues from heat and from CHP certificates from the calculation of LOCE (see table 1 and footnote 24)

- (194) As described in recital 77, the complainant claims that support granted at the same level for all installations is discriminatory because co-firing installations are the only ones that do not require the construction of special facilities. The Commission, however, notes that Poland provided evidence to show that also for co-firing installations there are investment costs that have to be considered (see table 3).
- (195) The complainant further argues that old hydropower plants benefiting from the scheme would be fully depreciated. However, in accordance with the information provided by the Polish authorities described in recital 102, none of the hydropower installations and co-firing installations that benefit from the support scheme is depreciated.
- (196) The complainant further argues that aid to co-firing installations does not have an incentive effect and leads to overcompensation. As explained and shown in tables 3 and 4 above, the aid has not lead to overcompensation for the co-firing installations. Moreover, the Polish authorities have submitted information showing that in the absence of support, the power plants would stop burning the more expensive biomass and thus, would not produce RES electricity.
- (197) Table 6 below shows typical costs of electricity production from biomass in Poland for a coal-fired unit with a co-firing installation.

Table 6 – Variable fuel costs of electricity production from biomass

Item	Unit	Value
Biomass cost	PLN/GJ	[25 – 30]
Efficiency	%	[30.5 - 36.5]
Fuel consumption per 1 MWh	GJ	10
Variable fuel cost	PLN/MWh	[250 – 310]
Market price of electricity	PLN/MWh	approx. 180

- (198) The Commission also notes in this context that for biomass the operating costs are a large part of the total production costs (however, remaining only a part of the production costs, as illustrated by table 3, and table 5). This means that variations of the market price of biomass can have a significant impact on the profitability of the biomass electricity producers. Since biomass represents a significant part of the RES mix in Poland (accounting for about 50 % of the total renewable electricity generated in Poland between 2005 and 2013), should the price of biomass decrease and trigger overcompensation of the biomass electricity producers, this would risk to also lead to overcompensation in the aggregate. However, the Commission notes that Poland has ensured in the past that the aid was proportional (see recital 192). Furthermore, in 2015 Poland has decided to adjust the support level for non-dedicated biomass co-firing plants by introducing a 0.5 correction factor. Poland confirmed that it will continue to monitor the aid scheme and will further adjust the support for biomass, if necessary, to avoid overcompensation.

(199) Based on the above, the Commission concludes that the Polish CO system is compatible with the internal market on the basis of the 2001 EAG, for the period between the entry into force of the CO system (1 October 2005) and the moment when the 2001 EAG were replaced by the 2008 EAG (1 April 2008).

3.3.3. *Compatibility of the aid measure with 2008 EAG*

(200) For the period from 2 April 2008 to 30 June 2014 the compatibility conditions of EAG 2008 point 110 apply (Option 2 for operating aid to renewable energy sources) given that the Commission has considered the certificates scheme as operating aid for electricity produced from RES. Given the high similarity of the assessment criteria of 2008 EAG with those of 2001 EAG for the operating aid for energy from RES, most of the assessment from Section 3.3.2 remains valid. The Commission has assessed more in details the changes that occurred after 2008 – namely the availability of investment aid and the evolution of the costs and prices (in particular the significant changes in the price of the certificates of origin).

(201) As indicated in the section 3.3.2., the Commission considers that the Polish CO system is essential to ensure the viability of the RES- E generation concerned, does not in the aggregate result in overcompensation for RES-electricity installations in the aggregate and does not dissuade renewable energy producers from becoming more competitive. Therefore these requirements, specified in point 110 of the 2008 EAG, are complied with. Poland has also provided very detailed calculations for co-firing and hydropower installations (for which the Commission received information from third parties expressing doubts related to the proportionality of the aid), demonstrating that overcompensation has not occurred for any of these technologies, not even when taken separately.

(202) Furthermore, Poland demonstrated that cumulation of the certificates of origin with investment aid, taking also into account also other certificates that the beneficiaries might receive, has not led to overcompensation. Poland provided calculations to demonstrate that the cumulation of the investment aid with other operational support (in the form of different CHP certificates) over the 15-year period for which the support in the form of certificates of origin is granted does not lead to overcompensation (see table 5).

(203) On the basis of the updated information provided by the Polish authorities on estimated costs and revenues for the whole 15 years duration of the support, the Commission compared the total costs and total revenues, including all the possible aid that could be cumulated (including investment aid that was granted to some beneficiaries after 2008). For all the technologies the production costs exceed the total revenues (including the aid – investment aid and other forms of operating aid, namely CHP certificates of different colours), confirming the absence of overcompensation.

(204) In table 7 above it can be seen that the total revenues (taking into account the revenues from electricity and revenues from all the certificates the plant could have obtained: certificates of origin and CHP certificates of different colours) remain always lower than the costs (capital costs, fixed operating costs and variable costs), even after the maximum investment aid that the plant could have obtained is deducted (see also recital 132, and table 5).

Table 7 – Proportionality of the aid – absence of overcompensation

Level of investment support	Unit	Hydro power plant	Co-firing of biomass		Wind power plants		Biogas plants	
		All units	Electricity plants	CHP	≤10 MW	>10 MW	< 1 MW	≥ 1 MW
Average production costs (after deduction of investment aid)	PLN/MWh	346.2	386.5	464.4	410.5	429.2	669.4	676.9
Total revenues (including all types of operating aid the beneficiaries could obtain)	PLN/MWh	340	340	440	340	340	550	500.0
Absence of overcompensation: difference between the production costs and the total revenues (including the aid)	PLN/MWh	6.2	46.5	24.4	70.5	89.2	119.4	176.9

(205) As explained in recital 190, the Commission considers that the LCOE calculations submitted by the Polish authorities, taking into account real costs of the installations (see tables 1 to 4), are more accurate than the ones provided by third parties in assessing the profitability of the beneficiaries and the absence of overcompensation in the aggregate. For the avoidance of any doubt the Commission has requested and Poland has provided very detailed calculations, as well as concrete examples of typical plants (see tables 8 and 9 below). The Commission has no reason to doubt the correctness of the information provided by Poland. Based on this information the Commission made additional calculations (see table 7) and is satisfied that the cumulation rules set out in section 6 of the 2008 EAG are complied with.

Table 8 – Capital cost for a typical hydro power plant, with a capacity of 20-200 MW, built more than 30 years ago, cost of generating hydroelectricity in the years 2012-2014 (based on the data received from power plants)

Production costs				
Unit fixed operating cost (without depreciation and interest on investment loans)	PLN/MWh	1	Data from reports	[120 – 150]
Capital costs (calculated on non-depreciated part of expenditures for 20-year operation and capital cost WACC of 8%)	PLN/MWh	2	As per revised value of net assets at PLN 7m/MW	[385 – 410]
Total costs	PLN/MWh	3	= 1+2	[505 – 560]
Revenues				
Electricity	PLN/MWh	4	Data from statistics	186. 0
Green certificates	PLN/MWh	5	Data from statistics	200. 0
Total	PLN/MWh	6	= 4 + 5	386. 0
Balance				
Difference between productions costs and revenues	PLN/MWh	7	= 3 - 6	[119 – 174]

Table 9 – Capital costs for a typical co-firing plant, with a capacity of 1000-2000 MW, built more than 30 years ago, with a co-firing capability, cost of generating electricity from biomass in the years 2012-2014 (based on averaged data received from power plants)

Operating costs				
Variable fuel cost (with biomass)	PLN/MWh	1	Calculated based on data from reports	[275 – 300]
Variable non-fuel cost	PLN/MWh	2	Data from reports	[0 – 10]
Unit fixed operating cost	PLN/MWh	3	Data from reports	[40 – 60]
Total operating cost	PLN/MWh	4	= 1 + 2 + 3	[315 – 370]
Capital cost				
Capital costs of units, calculated on non-depreciated part of expenditures for 20-year operation and capital cost WACC of 8%	PLN/MWh	5	As per revised value of net assets at PLN 2.8m/MW	[55 – 80]
Capital costs of co-firing installation for 15-year operation and capital cost of WACC of 8%	PLN/MWh	6	As per expenditures per 1 MW at 5% share of biomass	[20 – 30]
Total capital costs (calculated on capital cost WACC of 8%)	PLN/MWh	7	As per revised value and at 5% share of biomass	[75 – 110]
Revenues				
Electricity	PLN/MWh	8	Data from statistics	186.0
Green certificates	PLN/MWh	9	Data from statistics	200.0
Total revenues	PLN/MWh	10	= 8+ 9	386.0
Balance				
Difference between production costs (operating costs and capital costs) and revenues	PLN/MWh	11	= 4 + 7 - 10	[-94 to -4]

(206) Based on the above, the Commission concludes that the Polish CO system is compatible with the internal market on the basis of the 2008 EAG, for the period between the entry into force of the 2008 EAG (1 April 2008) and the moment when 2008 EAG were replaced by the EEAG (1 July 2014).

3.3.4. Compatibility of the aid measure with EEAG

(207) The Commission has assessed the compatibility of the aid granted after 1 July 2014 based on the provisions of the EEAG, in particular section 3.2. – General compatibility provision and 3.3.2.4 – Aid granted by way of certificates for energy from renewable energy sources.

(208) Objective of common interest: The aim of the aid measure is to help Poland achieve the binding 15% renewable energy target set by the Directive 2009/28/EC as part of its 2020 target. The Commission considers that the notified scheme is clearly aimed at an objective of common interest in accordance with Article 107(3) of the Treaty (see also recital 182 above).

- (209) Need for state aid and appropriate instrument: In point 107 EEAG, the Commission acknowledges that "under certain conditions State aid can be an appropriate instrument to contribute to the achievement of the EU objectives and related national targets". For this aid scheme, Poland showed that the system is necessary to ensure the viability of the generators of electricity from RES, given the costs of generating electricity from RES and the electricity market price. It has an incentive effect for all beneficiaries.
- (210) According to point 116 of the EEAG, in order to allow Member States to achieve their national energy and climate change targets, the Commission presumes aid to energy from renewable sources to be appropriate and have limited distortive effects provided all other compatibility conditions are met.
- (211) Consequently, the Commission considers that for the Polish CO system the aid is necessary and that it is an appropriate instrument to address the objective of common interest.
- (212) Incentive effect: In line with point 49 of the 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 aid electricity produced from RES based on renewable energy technologies will probably not be generated, as without the aid such RES projects would not be financially viable.
- (213) The Polish authorities explained that a mechanism was introduced to require investors, before start of works on a project, to submit to the body issuing the certificates of origin an application whose content would be in line with point 51 EEAG. The Polish authorities provided further details on the content of the application, based on which the Commission concluded that point 51 of EEAG is complied with.
- (214) To the extent new RES producers received the right to obtain certificates of origin, the Commission considers that the aid has an incentive effect.
- (215) For the co-firing plants Poland demonstrated that the operating costs of using biomass are so high that without support the plants would switch back to using fossil fuels only (see table 6 above). This will happen because the costs related to using biomass largely exceed the electricity price on the market, and therefore the marginal costs of using biomass would be higher than the electricity price, determining the generators to stop generating electricity from biomass (and switch to other fuels).
- (216) As detailed in Section 2.3.3.1 above (in particular recitals 104-108), all hydropower plants in Poland conducted refurbishments in the period 1999 to 2015 and a series of new plants were built. As there was another RES support scheme in place in Poland starting with 1999 (based on an RES acquisition quota mechanism – see recital 106) providing for the certainty for long term support at a certain level to RES producers, it can be concluded that the hydropower installations that conducted refurbishments before 2005 were basing themselves on the existence of long-term support. It is thus natural that they were allowed to the new support system in 2005 introduced as a continuation of the one in 1999. Without the support old hydropower plants would not have performed refurbishment investments and the

hydropower capacity in Poland would have decreased. Therefore, the aid to these hydropower plants has an incentive effect.

- (217) The Commission considers that hydropower plants conducting refurbishment investments after 2005 changed their behaviour due to the CO system.
- (218) Based on the explanations provided by Poland, the Commission agrees that the aid provided to the RES producers was essential to allow them to make the necessary investments. The Commission considers that the aid had an incentive effect for all beneficiaries, who would have not made their investments in the absence of the aid.
- (219) The CO system does not guarantee the value of the certificates of origin to RES producers. This value is determined by the market and shaped by undertakings involved (in line with the requirements of point 135 of the EEAG).
- (220) As indicated in the section 3.3.2., the Commission considers that the Polish CO system is essential to ensure the viability of the RES concerned, does not in the aggregate result in overcompensation over time and across technologies and does not dissuade renewable energy producers from becoming more competitive. Therefore the Commission considers that the requirements of point 136 of the EEAG are complied with. The Commission notes that the assessment is based on the information relating to 2012. Normally the Commission would have used the most recent data available (i.e. for 2014). However, as explained in footnote 26, the main change in 2013 and 2014 was a drop in the price of the certificates of origin. The other elements (generation costs and price of electricity) have changed to a significantly lower extent. It follows that the evolution of the price of certificates of origin significantly decreased the risk of overcompensation in 2013 and 2014. For this reason, the Commission agrees with the Polish authorities that the analysis based on the data from 2012 remains the most relevant, since absence of overcompensation based on these data would also imply the absence of overcompensation in 2013 and 2014.
- (221) The Commission notes that there is no differentiation in support levels through certificates of origin for the eligible technologies. Within the current Polish CO support system there is no differentiation between levels of support (in line with the requirements of point 137 of the EEAG).
- (222) The Commission notes that the changes introduced in the CO system in 2015, to enter into force on 1 January 2016, may be considered as differentiating in support levels between technologies by way of the exclusion from the support measures of old hydroelectric power plants with an installed capacity above 5MW and by way of the coefficient applied to the support for multifuel installations without a dedicated installation, together with a cap for the amount of electricity for which certificates of origin are granted (established based on the amount of electricity generated by the beneficiary in the recent years).
- (223) The Polish authorities explained that the changes introduced derive from the trend in the development of RES technologies in Poland between 1999 and 2015, based to a large extent on co-firing of biomass. Poland adopted new priorities in the national RES development policy and aims to limit the development of co-firing installations and incentivize the development of other RES technologies. Poland decided to reduce the support for biomass co-firing in multifuel installations without a

dedicated installation so as to cover the variable costs of biomass fuel (in view of maintaining the previous level of electricity generated from biomass) but not sufficient to cover additional capital costs (so as not to incentivise new investments in this technology).

- (224) Furthermore, Poland intended to address the oversupply of certificates of origin on the market. With the introduction of support measures for EIUs the oversupply would have increased leading to a further decrease in the price of the certificates of origin. In this context Poland decided to reduce the number of certificates given to the most developed and deployed RES technologies – the support for co-firing installations is reduced, as explained above, and the support for hydro power plants above 5 MW will no longer receive certificates of origin. Concerning the hydro power plants above 5 MW Poland explained that no new hydro power plants above 5 MW have been put in operation after 1999. When the previous support scheme is considered, it follows that such plants already received support for 15 years⁵⁴.
- (225) On the basis of the explanations provided by Poland, the Commission considers the differentiated level of support introduced for co-firing installations is in line with the requirements of point 126 of the EEAG as it is justified by the need to achieve diversification and therefore the differentiation is justified in compliance with point 137 of the EEAG.
- (226) The Polish authorities confirmed that, in line with the recent amendments brought to the CO system, starting from 1 January 2016 beneficiaries (installations with installed capacity of at least 500 kW) will be subject to standard responsibility for balancing. Also the possibility for beneficiaries to receive certificates of origin 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.
- (227) In so far as negative prices are concerned, the reference price referred to in the national legislation is the "average prices 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).
- (228) 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.
- (229) 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

⁵⁴ New hydro power plants above 5 MW that will be put in operation as of 1 January 2016 will be eligible for support under the new support scheme for RES, but this is outside the scope of this decision.

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 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.

- (230) Since Poland considered that the support provided through certificates of origin does not constitute aid, it did not introduce any restrictions on cumulation with investment aid. However, Poland submitted to the Commission detailed information on the types of aid that were available to RES producers and the results of the cumulation of aid. Poland confirmed that the revenues from certificates of origin 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 table 5) supports this conclusion and demonstrates that the cumulation of operating aid in the form of certificates of origin with other forms of aid (in particular investment aid) has not resulted in overcompensation. 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 certificates of origin.
- (231) Based on the above, the Commission considers that point 137 of the EEAG is complied with.
- (232) Transparency: According to point 104 of the 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 of the 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.
- (233) In their letter of 2 September 2014, the Polish authorities confirm that Directive 2000/60/EC (Water Framework Directive⁵⁵), is implemented in the Polish legal order primarily through the 'Water Law' together with implementing regulations to that Law. In addition, the Water Framework Directive is also transposed through the Act on Environmental Protection and the Act on collective water supply and collective sewage collection together with implementing regulations to these Acts. However, the Commission is not convinced that the Directive is correctly implemented and sent a Reasoned Opinion to Poland (Infringement No 2014/2252). The Commission believes that Poland should put in place an appropriate framework to enable the competent authorities to perform an assessment that guarantees compliance with the obligations of the Water Framework Directive. Some progress has been achieved towards the improvement of the implementation, and the Polish authorities confirmed they will continue their efforts to fulfil the existing gaps in the application of the exemptions under the Water Framework Directive.

⁵⁵ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327 of 22.12.2000, p.1

- (234) The Commission reminds to Poland that, in the light of the Reasoned Opinion relating to the implementation of this Directive in Poland (Infringement No 2014/2252), new hydro-morphological modifications, such as new hydropower plants, funded under the scheme must comply with the requirements for exemptions of Article 4(7) of Directive 2000/60/EC. They must be adequately justified, in particular as regards the assessment of alternative options, and should include all necessary mitigation measures. The Commission further reminds Poland that in case the aid is granted to installations that do not meet the specific requirements above, such aid can be considered illegal. In this context, the Commission welcomes the commitment of the Polish authorities to continue their efforts aiming to ensure full compliance with the Directive.
- (235) In view of the fact that waste is used as fuel in some installations generating energy from renewable sources⁵⁶, the Polish authorities confirm that the waste hierarchy, as set out in the Directive 2008/98/EC⁵⁷ 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 118 of the EEAG is complied with.
- (236) Distortion of competition and balancing test: According to 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.
- (237) According to point 116 of the EEAG, the Commission presumes aid to energy from renewable sources to have limited distortive effects provided all other compatibility conditions are met. The Commission considers that the aid to renewable energy under assessment does not have undue distortive effects on competition and trade because the applicable conditions laid out in Section 3.3.2.4 of the EEAG are fulfilled, as discussed above.
- (238) Consequently, the Commission concludes that the distortion of competition caused by the scheme under assessment is limited.
- (239) The Commission has assessed the way the aid is granted and has concluded that the aid is granted at the moment the eligible RES-E operators who started generating RES-E before 30 June 2016 (entry into force of Chapter 4 Renewables Act) receive certificates of origin for generated RES-E (i.e. when they entered into the scheme and generated RES electricity). The aid is then paid in the form of certificates of origin during 15 years, until 31 December 2035 at the latest (see Article 44(5)). The Polish authorities confirmed that the scheme will be open solely to RES-E installations which started generating RES-E before 30 June 2016 including those already benefiting from the certificates of origin under the Energy Law. The amount of aid disbursed each year depends on the value of the certificates

⁵⁶ Poland has also confirmed that the support in the form of certificates of origin is granted only for renewable part of the waste.

⁵⁷ 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

of origin and might change depending on the demand for such certificates (influenced by the quota obligation set up in Ministerial Obligation and the compensation fee).

(240) In line with point 131 EEAG d) the operating aid may be granted until the plant has been fully depreciated according to normal accounting rules. The Commission agrees that 15 years can be considered as a period of depreciation of RES-E installation. Thus granting certificates of origin for RES-E installations for 15 years and in any event until their full depreciation is in line with EEAG.

(241) Compliance with Article 30 and 110 TFEU: As indicated in point 29 of the EEAG, 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 CO system, certain entities (in majority electricity suppliers) are obligated 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 obligated entities is calculated in view of the total electricity they sell, or, respectively, consume. Therefore, imported RES 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 measures complies with Articles 30 and 110 TFEU.

(242) 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 recitals 44-52 above). To the projects already planned, Poland proposed to add a new project, the additional internal line – double circuit 400 kV line Baczyzna – Plewiska (app. 142 km). 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 estimated cost of construction of the line (app. PLN [...] million) exceeds largely the estimated amount of potential discrimination against imported RES electricity for the period 2005-2015 (total potential discrimination against imported RES and CHP electricity was estimated by Poland for the period 2005-2015 at PLN 172 million).

(243) The Commission considers that the investments proposed by Poland are likely to improve significantly the availability of cross-border capacity for commercial flows, and is as such susceptible to benefit RES electricity imports. Poland explained that the new additional line proposed is additional to the projects already planned, and likely to increase the import capacity by about 1500 MW.

(244) Furthermore, Poland undertook to open its future RES support scheme⁵⁸ in a way that will ensure full compliance with Articles 30 and 110 TFEU. On the basis of

⁵⁸ currently assessed in the case SA.43697.

information provided by Polish authorities the Commission understands that the certificates of origin are currently granted solely to existing RES-E installations and solely until their full depreciation, for a period of 15 years. Thus for RES-E installations which started their operation in June 2016 the last certificates of origin can be granted in June 2031 at the latest. The majority of beneficiaries started receiving certificates of origin already under Energy Law. In addition the Polish authorities explained that the objective is that the most existing RES-E installations will be supported by the new support scheme based on auctioning and thus the certificates of origin is considered as a "transition measure" for RES-E installations of a secondary importance for RES-E operators. Furthermore, Poland explained that it is not possible to open this support system to RES generators from other Member States, as there is no sufficient time to introduce such changes and such opening is ensured within the new RES support scheme⁵⁹.

- (245) In light of the above the Commission considers that the remedy to a potential breach of 30/110 TFUE proposed by Poland can be regarded as appropriate.
- (246) Conclusion with regard to the compatibility of the measure with the EEAG: In light of the above, the Commission considers that the assessed aid measure 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 the EEAG.

3.4. Compatibility of the reduction of burdens arising from the renewables certificate obligation for energy intensive users

- (247) The Commission has assessed the notified aid scheme on the basis of the EEAG, and in particular its section 3.7.2. (Aid in the form of reductions in the funding of support for energy from renewable sources).
- (248) Points 185-186 of the EEAG provide that the aid should be limited to sectors that are exposed to a risk to their competitive position due to the costs resulting from the funding of support to energy from renewable sources as a function of their electro-intensity and their exposure to international trade. Accordingly, the aid can be granted if the undertaking belongs to the sectors listed in Annex 3 to the EEAG. In addition, point 187 of the EEAG provides that Member States can impose additional eligibility criteria provided that within the eligible sectors the choice of beneficiaries is made on the basis of objective, non-discriminatory and transparent criteria and that the aid is granted in principle in the same way for all competitors in the same sector if they are in a similar factual situation.
- (249) Poland confirmed that the reduction for EIUs will only be granted in relation to the certificates of origin (i.e. with the burden for financing the RES support system). Undertakings from all sectors included in Annex III to the EEAG are eligible, subject to certain selection criteria, as explained below. On the other hand, only the companies from the sectors included in Annex III to the EEAG are eligible to benefit of a reduction, based on their electro-intensity.

⁵⁹ currently assessed in the case SA.43697.

- (250) The selection of the beneficiaries and the differentiation of the aid intensity to which they are entitled is done on the basis of their electro-intensity, an additional eligibility requirement which is objective, transparent and does not discriminate between undertakings in a similar factual situation (in line with point 187 of the EEAG).
- (251) Point 188 of the EEAG provides that the aid is considered proportionate if the aid beneficiaries pay at least 15 % of the additional costs without reduction. The system Poland established complies with this condition, and the maximum reduction that can be granted, to beneficiaries with an electro-intensity greater than 40 %, is 85 %.
- (252) Member States are required under Section 3.2.7. of the EEAG to publish as of 1 July 2016 certain information related to beneficiaries of aid. The Commission takes note of Poland's commitment to comply with the transparency requirements (see recital 232).
- (253) The Commission notes that in Poland autogenerators have de facto benefitted of reductions from the burden related to the RES financing, since, they only contribute to financing of the RES support system for the part of electricity they take from the grid. Poland informed the Commission that the electricity taken from the grid represents, on average, 66.25 % of the total electricity consumed by autogenerators, therefore autogenerators contribute in average to the financing of the RES support system on average 66.25 %. Furthermore, Poland confirmed based on individual data that energy-intensive autogenerators bear at least 15 % of the costs of the RES support system, while other autogenerators bear at least 20 % of these costs. Based on this information, the Commission considers that the autogenerators that benefitted of such reductions before the entry into force of the EEAG, on 1 July 2014, qualify as undertakings that can maintain a contribution of at least 20 % to the financing of the RES support system, in line with point 197 of the EEAG.
- (254) Currently the industrial customers only contribute to the financing of the RES support system for the part of electricity purchased (taken from the grid). Poland informed the Commission that it is considering the introduction of a mechanism whereby these customers will be obliged to contribute to the financing of the RES support system also for the part of electricity generated from their own sources, as in the case of electricity purchased by them. Should Poland become aware of any new autogenerator that could start to benefit of the reduction from the financing of the RES support system after 1 July 2014, and before the mechanism mentioned above is introduced, such situation would need to be notified the Commission as a separate State aid measure.
- (255) Poland explained that the national legal basis foresees no end date for the reduction of burdens arising from the renewables certificate obligation for EIUs. However, it agreed to re-notify the measure after 10 years. In line with point 169 of the EEAG, based on the current notification, the Commission decision can authorise the notified aid scheme for 10 years. If Poland wishes to continue implementing this aid scheme for EIUs, it will need to re-notify it before the end of 2025.
- (256) The Commission is aware that Poland intends to introduce a new support scheme for RES in 2016. In this context the Commission wishes to clarify that this decision only covers the aid to EIUs related to the CO system. Should Poland wish to grant any reduction from the financing of the new RES support scheme, such reduction would need to be notified separately.

(257) Based on the above, the Commission considers that the assessed aid measure for EIUs is compatible with the internal market on the basis of the EEAG.

4. CONCLUSION

The Commission regrets that Poland put the CO system to support renewable energy producers 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 measures (both the Polish CO system to support renewables and the reduction of burdens arising from the renewables certificate obligation for energy intensive users) on the grounds that they are 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 these aid measures 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: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
Stateaidgreffe@ec.europa.eu

Yours faithfully
For the Commission

Margrethe VESTAGER
Member of the Commission