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Subject: State Aid SA.44840 (2016/NN) – Bulgaria
Support for renewable energy generation in Bulgaria

Sir, /Madam,

1. PROCEDURE

(1) By electronic notification of 9 March 2016, the Bulgarian authorities notified, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU), the above-mentioned measure. The Commission requested additional information by letters of 12 May 2016, supplemented on 6 June 2016 and 8 June 2016. The Bulgarian authorities submitted the additional information by letters of 7 June 2016 and 20 June 2016.

2. DETAILED DESCRIPTION OF THE MEASURE

2.1. Objective and scope

(2) The primary objective of the notified measure is environmental protection through promotion of energy production from renewable energy sources. The notification covers operating aid in the form of preferential purchase prices to renewable energy producers.

(3) According to the Bulgarian authorities the State support for renewable energy is necessary in order to achieve the national target for the share of renewable energy in the gross final energy consumption of the country in 2020 as established in the

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Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

2.2. Legal basis

(4) The legal basis for the notified measure is comprised of the following legal acts:

- The Energy from Renewable Sources Act (ZEVI) as in force from 3 May 2011 and the Acts amending it;
- Ordinance No 1 of 18 March 2013 on the regulation of electricity prices issued by the president of the State for Energy and Water Regulatory Commission (DKEVR), promulgated State Gazette (DV) No. 33 of 05 April 2013, amended No. 17 of 28 February 2014, effective 28 February 2014, No. 4 of 16 January 2015, effective 1 February 2015;

2.3. Granting authority

(5) The granting authority is the Ministry of Energy, which is the entity legally responsible for implementing Bulgaria’s policy for promoting the production and use of energy from renewable sources.

2.4. Beneficiaries

(6) The beneficiaries of the notified measure are operators of installations producing renewable electricity. Under ZEVI of 3 May 2011 these include:

- Small hydropower plants (up to 10 MW of installed capacity);
- Photovoltaic power plants.

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3 Currently Energy and Water Regulatory Commission (KEVR).
4 Currently rescinded. DV No 38 of 23 April 2013, effective 5 April 2013
5 Former Ministry for Economy and Energy
- Wind power plants
- Biomass power plants
- Biogas power plants
- Geothermal power plants

(7) The subsequent amendments to ZEVI of 3 May 2011 progressively limit the types of beneficiaries as follows:

- Amendments to ZEVI through Act Amending the Energy Act\(^7\), effective from 6 March 2015 limit the beneficiaries to certain renewable installations with a total installed capacity of up to 30 kW\(^8\) and certain biomass installations with installed capacity of up to 1.5 MW\(^9\). This is further limited to such biomass installations being commissioned by 1 July 2016 through an amendment effective from 24 July 2015\(^10\).

- Amendments to ZEVI through Act Amending the Farmland Preservation Act as amended limit the granting of aid to biomass installations with installed capacity of up to 1.5 MW until 1 January 2016 and allows for granting of aid beyond 1 January 2016 only to certain renewable installations with total installed capacity of up to 30 kW\(^11\).

2.5. **Budget and duration**

(8) The estimated total budget of the notified support scheme is BGN 13 227 144 000 (EUR 6 772 419 550).

(9) The notified measure came into effect on 3 May 2011 and will expire on 31 December 2021.

2.6. **Source of financing**

(10) Under the established legal framework the costs incurred by the obligation to purchase renewable electricity at preferential prices are financed through the system described in this section. The level of the surcharges is established on annual basis by the Bulgarian Energy Regulator (DKEVR).

2.6.1. **Financing mechanism until 31 July 2013**

(11) In the period July 2011–July 2013 the financing mechanism involved a green energy premium added on the transmission price. The premium was paid per MWh of electricity by all users of the distribution and transmission systems. The premium was set by the Bulgarian Energy Regulator.

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\(^6\) Currently there are no geothermal installations in operation on the territory of the Republic of Bulgaria.

\(^7\) DV No 17 of 6 March 2015.

\(^8\) As defined in Article 24(1) of ZEVI - renewable installations constructed on rooftops and façade structures for production and storage activities, connected to transmission or distribution networks in urban areas.

\(^9\) As defined in Article 24(3) of ZEVI - Combined-cycle plants with indirect use of biomass constructed in urbanised areas, agricultural sites or industrial areas and whose installed capacity is 1.5 MW and which use less than 60 percent animal manure in their biomass and plants up to 500 kW which use biomass from plant waste from their own agricultural production.

\(^10\) DV No 56 of 24 July 2015.

\(^11\) See footnote 9.
2.6.2. Financing mechanism as of 1 August 2013

(12) On 1 August 2013 a new financing mechanism was introduced. The scheme started to be financed from the proceeds from tenders of greenhouse emission allowances and a new surcharge. The surcharge is levied on the electricity consumed by customers connected to the Bulgarian electricity network.

(13) For consumers on the liberalised segment of the electricity market the surcharge takes the form of a ‘public service obligation (PSO)’ levy paid per MWh of electricity consumed, in addition to the electricity price. For consumers on the regulated segment of the electricity market the surcharge is incorporated into the regulated electricity price.

2.7. Form of aid and design of the measure

2.7.1. Preferential purchase prices

(14) The support to renewable installations under the notified scheme takes the form of a preferential purchase prices (a so-called feed-in tariffs).

(15) The preferential purchase prices are established by the Bulgarian Energy Regulator. Initially they were updated on an annual basis. Since 17 July 2012 the Bulgarian Energy Regulator was granted the right to revise the levels of preferential prices more than once a year where an analysis of their underlying factors establishes that these have been subject to significant changes. So far, this possibility was only used in 2012.

(16) The levels of the preferential purchase prices are determined on the basis of production costs, to which a rate of return is added. Once awarded the preferential purchase prices are fixed for the entire obligatory purchase period, applicable to individual beneficiaries.

(17) The production costs are calculated following the methodology for the calculation of the levelised cost of energy (LCOE). They take into account investment costs, operating costs, and the productivity (load factor) of installations as a function of the technology type and the resources used.

(18) The costs and load factors were based on data from studies realised by international research organisations and financial bodies, taking into account the local specificities.

(19) The rate of return factored in the calculation of the preferential prices equals the estimated weighted average cost of capital and amounts to 9% before tax for 2011 and to 7% before tax since 2012. Its calculation is based on the capital asset pricing model (CAPM) for a representative business entity with a capital structure.

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12 Fraunhofer Institute for Solar Energy Systems (ISE) (November 2013), 2011, 2012 — Photovoltaic power plants, Wind energy power plants, Biogas power plants; IRENA Syngas (Synthetic gas) power plants, Biogas power plants, Europe energy portal; The photovoltaic market in Germany — Module, Price trends March 2013, February 2013, January 2013 — 11 April 2013; Fraunhofer, cost system prices, April 2013; Solar Photovoltaic Plant: operating and maintenance; Energy Information Administration, 2014 Annual Energy outlook (EIA, Energy Information Administration); Renewable energy technologies: cost analysis series; BGWEA; HSBC; Morgan Stanley; Rolf; JP Morgan; EU analysis; Meridian — Analyst and investors presentation, 28 May 2012; and other sources of information.
of 30% equity and 70% debt, taking into consideration the market risk for Bulgaria and the project risks associated with the business of producing renewable electricity.

(20) The Bulgarian authorities have established specific preferential purchase prices for different type of installations within each technology group (e.g. different prices for small wind installations and large wind installations). For all types of renewable installations the calculated LCOE is equal to the preferential purchase price. The LCOE also exceeds the average market price.

(21) The table below presents - summarised for each technology group - for the period 2011 – 2014 the LCOE, the IRR and the market price of electricity.

Table 1: LCOE vs market price per technology group (Source: Bulgarian authorities)

<table>
<thead>
<tr>
<th>Year</th>
<th>Technology Type</th>
<th>IRR %</th>
<th>LCOE (incl. IRR) BGN per MWh</th>
<th>Market Price BGN per MWh¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>2011</td>
<td>Hydropower</td>
<td>9%</td>
<td>112.10</td>
<td>265.05</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>9%</td>
<td>137.06</td>
<td>191.00</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>9%</td>
<td>485.60</td>
<td>605.23</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>9%</td>
<td>119.24</td>
<td>432.81</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>9%</td>
<td>119.24</td>
<td>432.81</td>
</tr>
<tr>
<td>2012</td>
<td>Hydropower</td>
<td>7%</td>
<td>98.15</td>
<td>229.33</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>7%</td>
<td>104.43</td>
<td>148.71</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>7%</td>
<td>169.85</td>
<td>400.70</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>7%</td>
<td>357.98</td>
<td>400.97</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>7%</td>
<td>109.83</td>
<td>472.63</td>
</tr>
<tr>
<td>2013</td>
<td>Hydropower</td>
<td>7%</td>
<td>98.15</td>
<td>242.30</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>7%</td>
<td>105.16</td>
<td>175.86</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>7%</td>
<td>160.20</td>
<td>353.97</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>7%</td>
<td>337.44</td>
<td>387.94</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>7%</td>
<td>89.16</td>
<td>453.12</td>
</tr>
<tr>
<td>2014</td>
<td>Hydropower</td>
<td>7%</td>
<td>93.69</td>
<td>236.92</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>7%</td>
<td>83.16</td>
<td>137.98</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>7%</td>
<td>131.36</td>
<td>211.81</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>7%</td>
<td>338.34</td>
<td>387.94</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>7%</td>
<td>89.16</td>
<td>453.12</td>
</tr>
</tbody>
</table>

¹Price reached at annual auctions

2.7.2. Mandatory purchase periods

(22) Renewable electricity is purchased at the preferential purchase prices by the public provider (i.e the State-owned utility company NEK EAD¹³) or by the end suppliers (i.e. electricity supply companies serving the retail electricity market)¹⁴. End suppliers sell the quantities of electricity produced from renewable sources connected to their networks to the public provider at the price at which they purchased it (i.e. at the applicable preferential purchase price). The renewable electricity is purchased for the following periods:

- 20 years for electricity from geothermal energy, solar energy and biomass;

¹³ National Electricity Company EAD.

¹⁴ Electricity from renewable installations connected to the transmission network is purchased by NEK EAD; electricity from renewable installations connected to the different distribution networks is purchased by end suppliers.
- 12 years for electricity from wind energy;
- 15 years for electricity from hydroelectric plants with installed capacity of up to 10 MW and electricity from other renewable sources.

(23) This mandatory purchase periods correspond to:
- the full depreciation period in the case of photovoltaic installations i.e. photovoltaic installations do not receive aid beyond full depreciation;
- a partial depreciation period in the case of all other technologies i.e. installations stop receiving aid before they are fully depreciated.

2.7.3. Offtake obligation - electricity eligible for support

(24) Initially, the total electricity produced by renewable installations was eligible for support under the purchase agreements. Since 1 January 2014 the electricity eligible for support is the quantity produced within the average annual number of operating hours determined by the Energy Regulator. Electricity above that quantity is purchased at non-preferential prices.

(25) However, since 24 July 2015 the electricity eligible for support is the quantity allowing renewable energy producers to receive the minimum revenue guaranteed by the cost components underlying the established preferential purchase price.

(26) Renewable installations can sell the quantity of electricity that exceeds the quantity eligible for support, on the free market at freely negotiated prices and/or on the balancing market. These amendments do not apply to small scale biomass installations.

2.8. Cumulation

(27) Aid under the notified measure can be cumulated with investment aid. When the construction of renewable installations is financed by a national or a European support scheme, the preferential prices are adjusted to take into account the level of investment support granted.

(28) The adjustment is realised by decreasing the regulatory asset base, used for the calculation of preferential purchase prices by the value of the investment granted under national or EU support schemes on a pro rata basis.

(29) Where the investment aid was not initially deducted when setting the level of support, the preferential purchase price was reduced by the amendment of ZEVI of 24 July 2015 to ensure that cumulation rules are respected and the risk of overcompensation is eliminated.

2.9. Levy on the preferential purchase price

(30) On 1 January 2014 a special 20% levy on the preferential purchase prices of renewable energy from photovoltaic and wind installations was introduced.

(31) On 31 July 2014 the Constitutional Court of Bulgaria issued a Resolution N13/31.07.2014 suspending the application of the 20% levy. The suspension became effective on 10 August 2014.
3. COMMITMENTS

(32) The Bulgarian authorities have committed to waive the surcharge added on top of the electricity price for all renewable electricity imported in Bulgaria from other EU Member States. To that end the Bulgarian authorities will introduce the necessary legislative changes.

(33) The Bulgarian authorities have committed to calculate a compensation amount that will be invested in interconnection infrastructure with the purpose of increasing the available interconnection capacity. The compensation amount will cover the period from 1 July 2011 until the surcharge waiver on imported renewable electricity becomes effective.

(34) The compensation amount is to be calculated on the basis of an estimate of the total quantity of renewable electricity imported from neighbouring EU Member States and the size of the corresponding levies applicable since the introduction of the support scheme.

(35) For the period 1 July 2011 – 30 April 2016, the Bulgarian authorities have estimated a compensation amount of BGN 1 146 965.51 (EUR 588 187.44). The Bulgarian authorities will adjust this amount to incorporate any compensation due for the period from 1 May 2016 until the surcharge waiver becomes effective.

(36) The targeted interconnection project, in which the compensation amount will be invested, is the 400 kV interconnector Maritza East - Nea Santa. The interconnector will have a length of 151 km and a capacity of 1500 MW, and will connect substation Maritza East in Bulgaria to substation Nea Santa in Greece.

4. COMPLAINTS

(37) On 19 March 2014 and on 2 May 2014 the Commission received letters from representatives of Bulgarian renewable energy producers alleging that the 20% levy on the preferential purchase prices of photovoltaic and wind installations is discriminatory and favours other renewable producers and producers of conventional energy.

(38) On 23 July 2014 the Commission received a letter from the Energy and Water Regulatory Commission (DKEVR) alleging overcompensation in case of feed-in tariffs awarded to photovoltaic and wind installations under the Bulgarian renewable support scheme. The complainant also suggests that the Bulgarian renewable support scheme represents an unlawful State aid measure.

(39) On 15 October 2014 the Commission received a letter from four industrial associations alleging that exempting electricity exporters from the electricity surcharge (public service obligation), destined to finance the renewable support scheme is discriminatory towards Bulgarian manufacturers and consumers.

(40) On 20 October 2015 and on 20 January 2016 the Commission received letters from the Bulgarian Photovoltaic Association and a small renewable producer. The letters allege a breach of State aid rules by some of the amendments to ZEVI introduced on 24 July 2015, in particular the reduction of the mandatory (offtake) quantity eligible for support (which was decreased for all renewable installations except for small scale biomass installations) and the reduction of the level of support for some renewable installations that have benefitted from investment aid.
5. **COMMENTS FROM THE BULGARIAN AUTHORITIES**

(41) The Commission forwarded the complaints quoted in section 4\(^{15}\), to the Bulgarian authorities requesting their comments on the issues raised.

(42) The Bulgarian authorities stressed the fact that the 20% levy on the preferential purchase prices has been abolished since the decision of the Constitutional Court of Bulgaria.

(43) The Bulgarian authorities have not commented on the allegation about the illegal character of the renewable support scheme. Regarding the allegations of overcompensation they have submitted detailed calculations on the feed-in tariffs approved in the period 2011 – 2014.

(44) The Bulgarian authorities have explained that a complaint with the same allegations has been filed with the National Competition Authority. The latter has concluded that the exemption from the surcharge is not discriminatory as it is within the logic of the financing system of the support scheme. The surcharge is paid by end users and in that context electricity destined for exports is not subject to the surcharge. Furthermore electricity end users cannot be considered as competitors of the exporters and thus put in a situation of disadvantage vis à vis them.

(45) The Bulgarian authorities have not commented on the issue of the reduced off-take quantity applicable to all renewable installations with the exception of small scale biomass plants.

(46) Regarding the reduced support levels to installations having benefitted from investment aid the Bulgarian authorities have explained that following an audit carried out under the 2007-2013 Rural Development Programme (RDP) some irregularities were detected - double support to these producers in the form of full preferential prices and funding under national or European support schemes. The introduced changes to ZEVI with respect to the reduced support have been undertaken to correct the mentioned irregularities.

6. **ASSESSMENT OF THE MEASURE**

6.1. **Presence of aid**

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

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\(^{15}\) Except for the one from 20 January 2016, whose allegations partially repeat those of Bulgarian Photovoltaic Association from 20 October 2015.
6.1.1. Aid granted by a Member State or through State resources

(48) For advantages to be capable of being categorised as aid within the meaning of Article 107 TFEU, they must be granted directly or indirectly through State resources.

(49) The notified measure takes the form of preferential prices for electricity from renewable energy sources. The preferential prices are funded through a combination of the revenues from auctioning of greenhouse emission allowances, and levies linked to electricity consumption, paid by electricity users – a PSO levy for the liberalised market segment and a surcharge incorporated into the regulated electricity price for the regulated market segment. The aid is therefore granted directly by the State.

(50) 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"16. 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 sector.

(51) The proceeds from the sales of greenhouse emission allowances are under the direct control of the Bulgarian State.

(52) The way the levies financing the notified measure are raised is established by law and implementing regulations. The Bulgarian Energy Regulator is responsible for setting the annual level of the levies destined for financing the preferential purchase prices. The former are collected from end consumers, initially through the State-owned Transmission System operator (TSO)17 and since August 2013 through the established collection system of the PSO levy18.

(53) Thus the State controls, directs and influences the administration of the funds used for the financing of the support scheme. Therefore the preferential purchase prices for producers of electricity from renewable energy sources are financed through State resources.

6.1.2. Favouring certain undertakings or the production of certain goods

(54) The notified measure introduces preferential purchase prices for producers of electricity from renewable energy sources. These producers will therefore be remunerated at a rate exceeding that remuneration which they would ordinarily have been in receipt of from the market had the aid not been granted. This support is only available to this category of producer and not to any other. The aid thus constitutes a selective economic advantage awarded to producers of electricity from renewable energy sources.

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16 Case C-262/12, Association Vent De Colère!, EU:C:2013:851, para 20.
17 Until February 2014 the TSO was within the structure of the State-owned utility company NEK EAD.
18 The collection of the PSO levy in the liberalised market is carried out on the basis of the existing electricity trading contracts between market participants.
6.1.3. Distortion of competition and effect on trade between Member States

(55) The beneficiaries operate in a liberalised market for electricity with cross-border trade. The advantageous treatment therefore distorts competitions and is likely to affect trade between Member States.

6.1.4. Conclusion with regard to the presence of state aid

(56) The notified measure thus constitutes State aid within the meaning of Article 107(1) TFUE.

6.2. Legality

(57) The Bulgarian authorities have implemented the aid before a final Commission decision. Thus Bulgaria has breached the stand-still obligation provided for in Article 108 (3) TFEU and the aid granted until the adoption of the present decision constitutes an unlawful aid.

6.3. Compatibility of the aid measure

(58) The Commission notes that the notified scheme aims at promoting the generation of electricity from renewable sources. Consequently, the notified scheme falls within the scope of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG). The Commission has therefore assessed the notified measures on the basis of the general compatibility provisions of the EEAG, set out in its section 3.2 and the specific compatibility criteria for operating aid granted for electricity from renewable energy sources - section 3.3 of the EEAG.

(59) 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 2008 Community Guidelines on State Aid for Environmental Protection (EAG), and the compatibility of the aid granted after 1 July 2014 based on the provisions of the EEAG.

6.3.1. Compatibility under the 2008 Guidelines

(60) The Bulgarian authorities confirmed that aid has only been granted to energy from renewable sources as defined by point 70(5) of the EAG.

(61) According to points 107 and 109 of the EAG operating aid for the production of renewable energy can be granted to cover the difference between the costs of production and the market price of the form of energy concerned. The aid can only be granted until plant depreciation and can include a normal return on capital. Any investment aid should be taken into account.

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20 OJ C 82, 01.04.2008, p. 1-33
The Bulgarian authorities provided calculations for all preferential purchase prices applicable in the period 2011 – 2015. The submitted calculations are based on the assumptions available at the moment aid was granted and demonstrate that all preferential purchase prices under the support scheme are equal to the LCOE of the relevant installations (see table 2).

Table 2: LCOE vs preferential purchase price 2011-2015 (Source: Bulgarian authorities)

<table>
<thead>
<tr>
<th>Year</th>
<th>Technology Type</th>
<th>Preferential Prices [ FITs] in BGN/MWh</th>
<th>LCOE in BGN/MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Hydropower</td>
<td>265.05</td>
<td>265.05</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>191.00</td>
<td>191.00</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>605.23</td>
<td>605.23</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>432.81</td>
<td>432.81</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>432.81</td>
<td>432.81</td>
</tr>
<tr>
<td>2012</td>
<td>Hydropower</td>
<td>229.83</td>
<td>229.83</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>148.71</td>
<td>148.71</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>400.70</td>
<td>400.70</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>400.97</td>
<td>400.97</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>472.33</td>
<td>472.33</td>
</tr>
<tr>
<td>2013</td>
<td>Hydropower</td>
<td>242.20</td>
<td>242.20</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>173.86</td>
<td>173.86</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>353.97</td>
<td>353.97</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>387.04</td>
<td>387.04</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>453.12</td>
<td>453.12</td>
</tr>
<tr>
<td>2014</td>
<td>Hydropower</td>
<td>236.92</td>
<td>236.92</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
<td>137.98</td>
<td>137.98</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic</td>
<td>211.91</td>
<td>211.91</td>
</tr>
<tr>
<td></td>
<td>Biogas</td>
<td>387.94</td>
<td>387.94</td>
</tr>
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<td></td>
<td>Biomass</td>
<td>453.12</td>
<td>453.12</td>
</tr>
<tr>
<td>2015</td>
<td>Photovoltaic</td>
<td>228.00</td>
<td>228.00</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>488.81</td>
<td>488.81</td>
</tr>
</tbody>
</table>

*Maximum level of FIT per technology type

As explained in recital (19) these LCOE include a rate of return that is initially set by the Bulgarian authorities at 9%, and later reduced to 7%, which correspond to the level of the estimated weighted average cost of capital for renewable investors. In view of the evidence provided, the included rate of return is considered reasonable.

As explained in recital (23) aid under the notified support scheme is not granted after installations have been fully depreciated. The support scheme therefore complies with point 109 a) of the EAG.

Any investment aid received by beneficiaries is duly deducted from the asset base, used for the calculation of the LCOE (see section 2.8 on cumulation). This is in line with point 109 b) of the EAG.

As regards the incentive effect as required by point 142 of the EAG, the calculations provided by Bulgaria show that the production costs of electricity from renewable energy sources have been higher than the electricity market price (see table 1). Hence without the aid, there would have been an insufficient incentive to undertake the projects for electricity generation from renewable energy sources as such activity would not have been economically viable.

The Bulgarian authorities confirmed that under the notified scheme until 31 June 2014 no operating aid has been granted for the production of renewable electricity in sites where the resulting installed generation capacity exceeded 125 MW. Accordingly, no individual notification of projects was required for the mentioned period pursuant to point 160 b) iii) of the EAG.
6.3.2. **Compatibility under the 2014 EEAG**

(68) The Bulgarian authorities confirmed that aid under the notified scheme can only be granted to energy from renewable sources as defined by point 19(11) of the EEAG.

6.3.2.1. **Objective of common interest**

(69) According to point 31 of the EEAG, Member States need to define precisely the objective of common interest pursued and explain the expected contribution of the scheme to that objective. The aim of the notified aid measure is to help Bulgaria achieving the renewable energy targets set by the EU as part of its 2020 strategy. 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.

6.3.2.2. **Need for State intervention**

(70) According to subsection 3.2.2 of EEAG, the Member State has to demonstrate that there is a need for State intervention and in particular that the aid is necessary to remedy a market failure that otherwise would remain unaddressed.

(71) In the case of production of renewable electricity, the Commission presumes that a residual market failure remains, which can be addressed through aid for renewable energy, for the reasons set out in point 115 of the EEAG.

6.3.2.3. **Appropriateness and incentive effect of the aid**

(72) According to points 40 et seq. of the EEAG, a measure is an appropriate instrument if it is able to address the policy objective concerned, given that other less distortive instruments may achieve the same results. Member States must show that State aid is an appropriate instrument to reach the objective. Point 116 EEAG considers that the Commission presumes that aid for renewable energy will be appropriate and the distortive effects of the aid will be limited provided all specific conditions of subsection 3.3 are met.

(73) 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 renewable energy technologies will probably not be deployed, as without the aid such projects would not be financially viable. The aid has therefore an incentive effect, since it determines the beneficiaries to change their behaviour and invest in renewable energy projects.

(74) The Bulgarian authorities confirmed that the beneficiaries have to fill in an application form21, which is submitted for evaluation prior to the start of works on the projects benefitting from aid. The Commission considers that the aid scheme complies with the obligation to use an application form for obtaining aid, set out in point 51 of the EEAG. The application form is to be submitted before the start of works, which is in line with the requirements of point 50 of the EEAG.

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21 Under the notified scheme that is equivalent to the application for installation of the energy production facilities under Art. 116 (7) of the Energy Law.
6.3.2.4. Proportionality of aid

(75) According to point 69 of the EEAG, environmental aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection objective aimed for.

(76) According to point 123 of the EEAG aid to electricity from renewable sources should in principle contribute to integrating renewable electricity in the market. However, for certain small types of installations this may not be feasible or appropriate. In this context point 125 of the EEAG grants an exception to small scale installations with an installed capacity of up to 500 KW from certain requirements that are applicable as of 1 January 2016 and which are reflected in point 124 of the EEAG.

(77) The exceptions under point 125 of the EEAG concern in particular the form of aid, the requirement to sell electricity directly in the market, the standard balancing responsibilities and the non-granting of aid in periods of negative prices. Thus installations satisfying the condition of point 125 of the EEAG of having installed capacity of less than 500 kW are allowed to benefit from aid in a form other than feed-in premiums and are free from the requirements of selling the electricity they produce in the market, bear balancing responsibilities and not being granted aid under negative prices.

(78) The Bulgarian authorities have confirmed that as of 1 January 2016 aid will only be granted to new installations with installed capacity of up to 30 KW. Thus point 125 of the EEAG is complied with.

(79) In line with point 127 of the EEAG the installations with an installed capacity of up to 30 KW are also exempted from the use of a bidding process as reflected in point 126 of the EEAG. In the absence of a bidding process, the requirements of point 131 of the EEAG are applicable.

(80) In line with the requirements of point 131 a) and b) of the EEAG the level of aid is limited to the difference between the LCOE, including a normal rate of return, and the market price (see tables 1 and 2). Any investment aid received by beneficiaries is duly deducted from the asset base, used for the calculation of the LCOE (see section 2.8).

(81) The rate of return is limited to the level of the weighted average cost of capital, established on the basis of the CAPM model. Based on the evidence provided by the Bulgarian authorities this is considered a reasonable rate of return (see in particular recital (20)).

(82) In line with the requirements of point 131 c) and d) of the EEAG the LCOE calculations are updated regularly, at least once a year, and the aid is granted no longer than the plants have been fully depreciated according to normal accounting rules. Thus the proportionality requirements are met.
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 others, 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.

In view of point 117 of the EEAG, by communication of 8 June 2016, the Bulgarian authorities explained that the Directive 2000/60/EC (Water Framework Directive\(^{22}\)) is implemented in the Bulgarian legislation in particular through the 'Water Act' together with implementing regulations to that Law. The Bulgarian authorities declared that they respect the requirements of the Water Act. The Commission notes that since 6 March 2015 no new hydro power plants are supported under the scheme and further reminds Bulgaria to ensure the correct application of the provisions of the Water Framework Directive, in particular those relating to the requirements of Article 4(7), to hydro power plants.

In view of point 118 of the EEAG, by communication of 8 June 2016, the Bulgarian authorities explained that the Directive 2008/98/EC (Waste Framework Directive\(^{23}\)) is implemented in the Bulgarian legislation in particular through the 'Waste Management Act' together with implementing regulations to that Law. The Bulgarian authorities declared that the waste hierarchy, as set out in the Waste Framework Directive is respected, with regard to the support provided under the notified scheme to plants using waste. The Commission notes that since 1 January 2016 no new biomass and biogas plants are supported under the notified scheme.

As regards judgment of the Court of Justice in case C-141/14 Commission vs Bulgaria\(^{24}\), the Bulgarian authorities informed that none of the wind installations falling within the scope of the notified aid scheme are covered by the above mentioned judgment. Therefore, the Commission takes note of the fact that, as the Bulgarian authorities stated, none of the wind installations covered by the said judgment will be granted aid under the notified aid scheme.

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. Consequently, the Commission concludes that the distortion of competition caused by the scheme under assessment is limited.


\(^{24}\) Commission v Bulgaria, C-141/14, ECLI:EU:C:2016:8; The Court ruled that by approving the implementation of certain wind power projects in the Kaliakra region, Bulgaria has failed to fulfil its obligations under Article 4(4) of Directive 2009/147 (Birds Directive), Article 6(2) of Council Directive 92/43/EEC (Habitats Directive), Articles 2(1), 4(2) and 4(3) of Directive 2011/92/EU and point 1(b) of Annex III to that directive (EIA Directive).
6.3.2.6. Transparency

(88) 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, which was confirmed by the Bulgarian authorities. Accordingly, the Commission concludes that the Bulgarian authorities comply with the transparency requirements as they undertook to ensure the transparency of the aid granted and publish the relevant information.

6.3.3. Conclusion on compatibility

(89) In view of the considerations set out above, the Commission finds that the notified aid scheme to support renewable electricity is in line with the requirements of respectively the 2008 EAG and the 2014 EEAG and, hence, is compatible with the internal market pursuant to Article 107(3)(c) TFEU.

6.3.4. Compliance with Article 30 and 110 TFEU

(90) In accordance with point 29 of the EEAG, as the support for renewable electricity is financed by a charge on electricity transmission, respectively by a charge on electricity consumption, the Commission has verified that the financing mechanism of the aid measure complies with Articles 30 and 110 TFEU.

(91) According to the case-law, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products. If the advantages which those products enjoy wholly offset the burden imposed on them, the effects of that charge are apparent only with regard to imported products and that charge constitutes a charge having equivalent effect, contrary to Article 30 of the Treaty. If, on the other hand, those advantages only partly offset the burden borne by domestic products, the charge in question constitutes discriminatory taxation for the purposes of Article 110 of the Treaty and will be contrary to this provision as regards the proportion used to offset the burden borne by the domestic products.

(92) If domestic electricity production is supported by aid that is financed through a charge on all electricity consumption (including consumption of imported electricity), then the method of financing, which imposes a burden on imported electricity not benefitting from this financing, risks having a discriminatory effect on imported electricity from renewable energy sources and CHP plants and thereby violate Articles 30 and/or 110 of the Treaty.

(93) The Bulgarian authorities committed to waive the surcharge on electricity consumption for all renewable electricity imported from other EU Member States. The surcharge waiver will become effective once Bulgaria has implemented the necessary for that purpose amendments to the applicable legal basis.

25 Joined Cases C-128/03 and C-129/03 AEM, EU:C:2005:224, paragraphs 44 to 47; Case C-206/06 Essent, EU:C:2008:413, paragraph 42.

The Bulgarian authorities indicated that the implementation of the legal amendments, which will introduce the surcharge waiver is to take place in June 2017 at the latest. The surcharge waiver will be applied only to imported EU green electricity, which is certified by a guarantee of origin, issued by the competent authorities of an EU Member State.

For the potential discrimination from 1 July 2011 until the entry into force of the surcharge waiver the Bulgarian authorities have committed to invest a compensation amount into an interconnection project that will increase cross-border capacity between Bulgaria and Greece - the 400 kV interconnector Maritza East - Nea Santa. As explained in Section 3 the compensation amount will be calculated on the basis of an estimate of the total quantity of renewable electricity imported from neighbouring EU Member States and the size of the corresponding levies applicable since the introduction of the support scheme.

The Commission thus considers that, provided that the Bulgarian Authorities ensure the effective and timely application of their commitments (as set up in recitals (94) and (95)), the Bulgarian authorities have presented appropriate remedies to the potential breach of Articles 30 and/or 110 TFEU.

6.4. The complaints submitted to the Commission

The submissions received by the Commission from various complainants suggest that the reduced support levels may result in decreased levels of profitability for beneficiaries to the extent that some of the installations affected may no longer be economically profitable.

Some of the complainants suggest that the profitability level of installations is also negatively affected by the reduction of the mandatory offtake quantity and the effect of the 20% levy temporarily imposed on the preferential purchases price of photovoltaic and wind installations.

The Commission notes, that it assesses whether the aid scheme complies with the conditions laid down in the EAG and EEAG. The most relevant rules in this respect are the proportionality (and cumulation) rules as in particular laid down in point 109 EEAG and point 131 EEAG. As set out above, the Commission has concluded that the aid scheme is compatible with the rules laid down in both the EAG and EEAG, as the thresholds set in respectively the EAG and EEAG are not exceeded.

With regard to the allegations that the exception of small biomass installations from the reduced mandatory offtake quantity is discriminatory, the Commission notes that under the applicable rules in the EAG and EEAG for the Bulgarian aid scheme, Member States are not obliged to provide the same entitlement for energy from different types of renewable sources that are eligible for support.

Regarding the allegation about the discriminatory character of the financing mechanism applicable since 1 August 2013 as exported electricity is not subject to the surcharge, the Commission notes that the surcharge is payable on electricity consumed in Bulgaria. Electricity destined for exports, and thus not consumed in Bulgaria, is therefore logically not subject to the surcharge.
The charge follows the logic of the system, charging respectively all energy transmitted (before August 2013) and all energy consumed (after 1 August 2013). In this connection, no discrimination takes place in favour of the exporters, who are in a different situation. For these reasons, the complaint can be dismissed.

7. CONCLUSION

The Commission regrets that Bulgaria put the aid measure in question 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 on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

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:

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Yours faithfully
For the Commission

Vera JOUROVÁ
Member of the Commission