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#### ClientEarth

We are lawyers engaged in environmental protection. Combining law, science and public policy, we create strategies and tools which help cope with the greatest problems of the natural environment.

#### 1. Introduction

n 5 December 2016, on its website the Polish Government Legislation Centre published the Draft Act on the Capacity Market<sup>1</sup>. According to the justification of the Draft Act, the purpose of the Act is to prevent generation capacity deficits by remodelling the regulatory environment of the electricity market so as to create strong economic incentives encouraging the construction, maintenance and modernisation of generating units and energy demand management on the end users side<sup>2</sup>.

The Draft Act is largely based on the document "Functional Solutions of the Capacity Market" of 30 September 2016. These solutions constitute a modified version of "Draft Functional Solutions of the Capacity Market", published by the Ministry of Energy on 4 July 2016. Both documents are preparatory policy documents with the preliminary assumptions of the capacity market design. Therefore they do not have legal force. The July draft was assessed in the report "The Functional Assumptions of the Capacity Market Design in Poland – A Legal and Economic Analysis" prepared by the Regulatory Assistance Project (RAP) and ClientEarth.

Since the Draft Act on the Capacity Market is different from the original proposals underlying the Act which were published in July 2016, it seems purposeful to prepare a new study on the concept of the capacity market in Poland. The present report is substantially limited to a comparison of the Draft Act on the Capacity Market with European Union law. Notwithstanding this, however it also includes necessary references to the economic consequences of the introduction of the capacity market which would ensue from the Draft Act considered here.

The study contains a brief characterisation of the capacity remuneration mechanism proposed by the Polish Ministry of Energy and the relevant EU regulations on ensuring generation adequacy. The present report seeks to answer the following questions:

- Does the proposed capacity market constitute State aid?
  if so, then:
- Does the Draft Act on the Capacity Market comply with (both the present and proposed) provisions of European Union law?

 $<sup>1 \</sup>quad \text{http://legislacja.rcl.gov.pl/docs//2/12292758/12396022/12396023/dokument260368.pdf (accessed on 11.12.2016)} - \text{``Draft Act''}.$ 

 $<sup>2 \</sup>quad \text{http://legislacja.rcl.gov.pl/docs//} 2/12292758/12396022/12396023/dokument260372.pdf, p. 2 (accessed on 11.12.2016). \\$ 

 $<sup>3 \</sup>quad \text{http://www.me.gov.pl/files/upload/26489/Rozwiazania\%20funkcjonalne\%20rynku\%20mocy\_final\_20161003.pdf (accessed on 11.12.2016).}$ 

<sup>4</sup> http://www.me.gov.pl/files/upload/26170/Projekt%20rozwi%C4%85za%C5%84%20funkcjonalnych%20rynku%20mocy\_final.pdf (accessed on 11.12.2016).

<sup>5</sup> The report is available at the address: http://www.documents.clientearth.org/wp-content/uploads/library/2016-07-14-zalozenia-rynku-mocy-w-polsce-%E2%80%93-analiza-prawna-i-ekonomiczna-coll-pl.pdf (accessed on 11.12.2016).

<sup>6</sup> Find more on the website: http://www.raponline.org/.

#### 2. Main conclusions

- The remuneration for the fulfilment of the capacity obligation as envisaged in the Draft Act on the Capacity Market constitutes State aid.
- In its present form, enabling different clearing prices for new or modernised capacity market units, the proposed mechanism has lost the features of a competitive market, i.e. a set of constant rules of competition among capacity providers<sup>7</sup>.
- The Draft Act on the Capacity Market is not compatible with the EU internal market, as:
  - it establishes a new measure enabling the award of subsidies which are harmful for the environment;
  - it fails to provide that the capacity obligation may be fulfilled by operators from other Member States;
  - it may possibly fail to ensure the participation of a sufficient number of generators to establish a competitive price of generation capacity in the case of particular main auctions which would have different clearing prices for new or modernised capacity market units.
- In its proposed form, the capacity market scheme may not be approved by the European Commission (EC), which has the sole competence to approve State aid. The EC is bound, by its own guidance<sup>8</sup>, to reject a capacity remuneration mechanism as incompatible with the internal market regulations.
- ◆ The monetary costs of the capacity market as presented in the Regulatory Impact Assessment (RIA) will amount to approx. EUR 0.95 billion<sup>9</sup> (PLN 4.15 billion) in 2021 and will subsequently grow in successive years, to reach an amount of approx. EUR 1.15 billion (PLN 5.1 billion) in 2026. Although the RIA does not include a forecast for later years, it can be assumed that the annual amount of PLN 5.1 billion will also have to be incurred in the following 10 years (i.e. until the expiration of the first 15-year capacity agreements with new capacity market units). This would mean a total additional cost of more than EUR 16 billion (PLN 70 billion) to be incurred by all end users (final customers) in the period from 2021 to 2035.
- The Draft Act itself does not specify key issues (including, in particular, the parameters of auctions), but they are to be defined only in the implementing regulations for

<sup>7</sup> In particular, according to the July "Functional Solutions of the Capacity Market" proposal an auction would always end with one clearing price for all the capacity market units, while under the Draft Act the Minister of Energy is in fact empowered to order different capacities in each successive main auction. See below.

<sup>8</sup> See below.

<sup>9</sup> Assumed an exchange rate of EUR to PLN = 4,37.

the Act. As a result, on the one hand, it is impossible to precisely define the structure of the capacity ordered, the environmental impact of the capacity market and the specific costs of this mechanism, while, on the other hand, such a legislative approach will additionally make it more difficult to be approved by the European Commission.

# 3. The capacity remuneration mechanism under the Draft Act on the Capacity Market

Under the Draft Act on the Capacity Market:

- The capacity market has the form of centralised auctions in which both generating units and Demand Side Response (DSR) units can participate.
- Starting in 2021, i.e. the first year when capacity is to be provided, the end users will incur not only the costs of the electricity supplied, but also the costs of capacity availability in the Polish Power System (PPS). This purpose will be served by a new capacity charge, to be paid as a remuneration for the fulfilment of the capacity obligation by the providers which win an auction.
- Auctions are divided into main auctions and additional auctions. The winners of a main auction are obliged to provide capacity to the PPS in the fifth year after the closure of the auction (moreover, the transitional regulations provide for shorter time intervals between the first auctions and the supply dates). Additional auctions will be held in the year preceding the capacity delivery.
- Providers having disposable units with an achievable capacity exceeding 2 MW may take part in auctions. Groups of smaller units may participate when their combined achievable capacity exceeds 2 MW.
- Foreign capacity providers may not participate in the capacity market.
- In the main auctions, capacity providers from new capacity market units may conclude capacity agreements for a period not longer than 15 years, capacity providers from modernised units for a period not longer than 5 years and capacity providers from existing units for one year. In the additional auctions, capacity agreements are concluded for a given quarter of the year.

- ◆ The Draft Act does not include a definition of a new or modernised capacity market unit. As a result, in particular, it is not clear whether a DSR unit may be such a unit¹o, or whether it may only be a generating capacity market unit. It would be well-advised to add appropriate, objective definitions of new and modernised capacity market units to the glossary of terms of the Act.
- In principle, an auction ends with one clearing price for all the capacity market units. However, the Minister of Energy may decide that a given auction may end with different (higher) clearing prices for new or modernised capacity market units.
- Capacity providers from new or modernised units are able to participate in a main auction when they meet specified features (Polish: atrybuty), which are laid down in a Regulation of the Minister of Energy. These features may be different for particular generation technologies. Features are expected to include the following technical and economic parameters:
  - a unit level of investment costs;
  - the efficiency of a generating unit;
  - the CO<sub>2</sub> emission factor;
  - the emission factors of substances which are harmful for the environment; and
  - the minimum technical performance of a generating unit, the rate of load change or the requirements for the start-up characteristics (at least one of these three parameters).
- Capacity providers receiving State aid as part of support schemes for renewable energy or cogeneration may participate in the capacity market. This in particular applies for operators of multi-fuel plants using conventional and renewable sources (co-firing). In the case of such a multi-fuel plant, the remuneration for fulfilling the capacity obligation is respectively reduced by the share of capacity generated from renewable energy sources.
- The capacity obligation may be traded on the secondary market.

## 4. The Draft Act on the Capacity Market as State aid

#### 4.1. TFEU

The remuneration for the fulfilment of the capacity obligation referred to in the Draft Act on the Capacity Market constitutes State aid within the meaning of EU law, since it meets at the same

<sup>10</sup> Such a conclusion can be drawn from a comparison of the literal wording of the provisions of Articles 16(4)(1)-(2), in conjunction with Article 2(8) of the Draft Act. It should be pointed out, however, that such an interpretation is inconsistent with the assumptions of the September "Functional Solutions of the Capacity Market" to which the justification of the Draft Act refers. See p. 3 of this justification.

time all the conditions laid down in Article 107(1) of the Treaty on the Functioning of the European Union (TFEU)<sup>11</sup>; specifically, this measure<sup>12</sup>:

- is granted to energy undertakings (capacity providers);
- is granted by a Member State or through State resources in any form whatsoever, since:
  - the resources for the payment of the remuneration for the fulfilment of the capacity obligation are the proceeds from the capacity charge imposed by the State on all end users, and
  - these resources are controlled and paid out to enterprises by the settlement of accounts manager (Zarządca Rozliczeń S.A.) controlled by the State under a redistribution mechanism adopted by the State;
- grants a selective advantage, since:
  - this mechanism grants an advantage exclusively to certain energy undertakings,
  - e.g. the operator of a single unit (both a generating and a DSR one) with achievable capacity of less than 2 MW may not conclude on its own a capacity agreement or receive a remuneration for the fulfilment of the capacity obligation;
- distorts competition or threatens to distort competition, since:
  - the remuneration for the fulfilment of the capacity obligation is granted on the market created by the State which is separate to the energy market itself, and
  - only some competitors on the energy market, rather than all of them, receive a remuneration for the fulfilment of the capacity obligation;
- affects trade between Member States, since both electricity and electrical capacity may be traded in the EU internal market.

#### 4.2. THE SECTOR INQUIRY OF THE EC

On 30 November 2016, the European Commission published its Final Report of the Sector Inquiry on Capacity Mechanisms<sup>13</sup>. In this report, the Commission emphasised that public support for capacity providers constitutes State aid which posed the risk of distorting competition in the electricity market<sup>14</sup>. As indicated by the Commission, one of the main risks related to the application of capacity mechanisms is the limitation of such mechanisms exclusively to national capacity providers (whereas in the EU as a whole there is now a substantial excess of available capacity<sup>15</sup>), which leads to increased costs of security of supply<sup>16</sup> and also hampers the achievement of the EU climate objectives<sup>17</sup>.

<sup>11</sup> OJ C of 2012, No. 327, p. 47, as amended.

<sup>12</sup> For more see: M. Stoczkiewicz, Capacity mechanisms in the electricity sector in the context of State aid, European Energy Journal, vol. 5, issue 4, November 2015

<sup>13</sup> COM(2016) 752 final. This document is available at the address: http://ec.europa.eu/energy/sites/ener/files/documents/com2016752.en\_.pdf (accessed on 11.12.2016).

<sup>14</sup> Ibidem, p. 2.

<sup>15</sup> Ibidem, p. 3.

<sup>16</sup> Ibidem, p. 2.

<sup>17</sup> Ibidem.

Moreover, in the opinion of the Commission, capacity mechanisms should not be a substitute for the implementation of necessary reforms in the energy market itself<sup>18</sup>, in particular such as the abolition of excessively low wholesale price caps<sup>19</sup> and the market integration of the "crucial" DSR technology<sup>20</sup>. The Commission emphasises that this will require reforms of this type in each Member State which intends to introduce a capacity remuneration mechanism<sup>21</sup>. The report also points out that national capacity mechanisms should be explicitly open to cross-border participation<sup>22</sup>.

## 5. State aid for generation adequacy under EU law

#### 5.1. TFEU

Pursuant to the provisions of the TFEU, in principle State aid shall be incompatible with the internal market<sup>23</sup>. There are a number of exceptions to this rule and one of them is the discretionary power of the European Commission to consider aid to facilitate the development of certain economic activities to be compatible with the internal market provided that such aid does not adversely affect trading conditions to an extent contrary to the common interest<sup>24</sup>. On this basis, the Commission may grant a Member State a derogation from the general prohibition of awarding aid to ensure generation adequacy<sup>25</sup>. The Commission has the sole competence and a wide discretion to approve such aid<sup>26</sup>.

#### 5.2. EEAG

In examining a given measure granting State aid, the Commission is bound by the guidelines which it has issued<sup>27</sup>. Since 2014 such guidelines have also applied to ensuring generation adequacy. The conditions for the admissibility of aid for this purpose were laid down in section 3.9 of the Communication from the Commission "Guidelines on State aid for environmental protection and energy 2014-2020" (EEAG)<sup>28</sup>. Thus, in practice the Commission may not approve State aid failing to meet all the conditions laid down in the EEAG. These conditions must be fulfilled cumulatively. Each of 6.1-6.6 sections below relate to one of those cumulative requirements ("common assessment principles") in the EEAG. A capacity remuneration mechanism must also be compatible with Articles 30 and 110 TFEU (section 6.7 below).

<sup>18</sup> Ibidem, p. 7.

<sup>19</sup> Ibidem, p. 5.

<sup>20</sup> Ibidem, p. 6.

<sup>21</sup> Ibidem, p. 17.

<sup>22</sup> Ibidem, p. 18.

<sup>23</sup> Cf. Article 107(1) TFEU.

<sup>24</sup> Cf. Article 107(3)(c)TFEU.

<sup>25</sup> For more see: M. Stoczkiewicz, Capacity mechanisms, op. cit., s. 32.

<sup>26</sup> For more see: M. Stoczkiewicz, Pomoc państwa dla przedsiębiorstw energetycznych w prawie Unii Europejskiej (State aid for energy undertakings under European Union law – in Polish), Warsaw 2011, pp. 383-385.

<sup>27</sup> See the rulings of the CJEU in the cases: C-313/90, CIRFS v Commission [1993] ECR I-1125, paragraph 36; C-351/98, Spain v Commission [2002] ECR I-8031, paragraph 53; and C-409/00, Spain v Commission [2003], ECR I-1487, paragraph 95.

<sup>28</sup> OJ C of 2014, No. 200, p. 1.

# 6. Compatibility of the Draft Act on the Capacity Market with the EU internal market

#### 6.1. OBJECTIVE OF COMMON INTEREST<sup>29</sup>

In accordance with the justification and the RIA of the Draft Act on the Capacity Market, the basic problem to be solved by the proposed Act is the missing capacity in the Polish Power System. The RIA indicates that by 2035 it will be necessary to replace at least 23 GW out of 40 GW of the electrical capacity now installed in the PPS.

The EEAG provides that the measures to ensure generation adequacy can be designed in a variety of ways, including in particular in the form of operating aid which rewards only the commitment to be available to deliver electricity. The remuneration for the fulfilment of the capacity obligation as proposed by the Draft Act, to be paid out to a capacity provider by the settlement of Zarządca Rozliczeń S.A. after the end of each month of the delivery period, is exactly such a measure.

In principle, the EEAG requires capacity mechanisms to be open for all technologies, however, within the limits of climate objectives<sup>30</sup>. The EEAG provides that the aid to ensure generation adequacy may be inconsistent with the objective consisting of phasing out subsidies which are harmful for the environment, including those for fossil fuels. In other words, the environmental requirements are the only exception to the general principle of technological neutrality of the capacity remuneration mechanism.

The Draft Act on the Capacity Market provides that technological neutrality may be limited due to the environmental requirements. This may be done by the appropriate specification of the abovementioned features (Polish: *atrybuty*), which are one of the mandatory parameters of each main auction. These features are to be laid down in a Regulation of the Minister of Energy and may be different in successive main auctions. In accordance with the Draft Act, the features include, in particular:

- the unit CO<sub>2</sub> emission factor; and
- the unit emission factors of substances which are harmful for the environment.

Bearing the above in mind, it should be noted that:

 the obligation to specify the features applies only to new or modernised capacity market units; therefore, this provision will also be fulfilled when the Minister of Energy defines the features exclusively for new ones or exclusively for modernised ones;

<sup>29</sup> Points 219-221 EEAG.

<sup>30</sup> Cf. COM(2016) 752 final, p. 11, fn. 29.

- the features may be different for particular groups of technologies; in particular, different emission factors may be laid down for coal-fired, gas-fired, cogeneration etc. units; and
- the Minister of Energy is not permitted to specify features (including environmental requirements) for existing capacity market units.

The European Commission has the sole competence to approve State aid and is bound by the EEAG. The Polish Power System has a high mean  $\mathrm{CO_2}$  emission factor (exceeding 800 g  $\mathrm{CO_2}/\mathrm{kWh^{31}}$ ). In Member States where the Commission has approved capacity remuneration mechanisms,  $\mathrm{CO_2}$  emission factors were much lower (less than 500 g  $\mathrm{CO_2}/\mathrm{kWh}$  in Great Britain<sup>32</sup> and less than 100 g  $\mathrm{CO_2}/\mathrm{kWh}$  in France<sup>33</sup>). Thus, the consistency of the capacity market proposed in the Draft Act with the EEAG objectives depends on the contents of relevant Regulations which lay down the parameters of the individual auctions.

Since the implementing acts constitute an inherent element of the proposed capacity mechanism, the parameters adopted (at least) for the first main auction should be presented to the European Commission as part of the notification of the Draft Act on the Capacity Market itself. Moreover, the parameters adopted for all subsequent auctions must be in compliance with the requirements set in the Commission decision approving the Draft Act. The possibility that as part of the capacity market support may be given to new generating units expected to emit on average  $700 \text{ g CO}_2/\text{kWh}$  or more should be considered inconsistent with the principal objective of the EEAG which consists in a phaseout of subsidies which are harmful for the environment.

With regards to Greenhouse Gas Emissions the Commission may also consider the proposed provision on the emission factor of power units participating in capacity mechanisms not exceeding 550 g of  $\rm CO_2$  per kWh<sup>34</sup>. Even since this regulation is clearly not binding it might be included for determining what level of environmental protection satisfies the requirement of meeting an objective of common interest.

The EEAG also requires to ensure that the generation capacity adequacy remains consistent with the analysis of the European Network of Transmission System Operators for Electricity (ENTSO-E). The justification and RIA of the Draft Act on the Capacity Market scheme are based on an analysis of the Polish Transmission System Operator Polskie Sieci Elektroenergetyczne S.A. (PSE) that is not publically available<sup>35</sup>.

Being inaccessible, the PSE analysis is difficult to fully assess. In particular, it is not clear if the reliability standard applied is 9% or  $18\%^{36}$ . However, it is indicated that the forecast fails to fully

 $<sup>31 \</sup>quad \text{Cf. http://www.kobize.pl/uploads/materialy/materialy_do_pobrania/wskazniki_emisyjnosci/160616\_WSKAZNIKI_CO2.pdf (accessed on 11.12.2016).} \\$ 

<sup>32</sup> Cf. https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/507942/Emission\_Factor\_Methodology\_Paper\_-\_2015.pdf (accessed on 11.12.2016).

<sup>33</sup> Cf. https://www.iea.org/newsroom/graphics/2015-04-28-carbon-emissions-from-electricity-generation-for-the-top-ten-producer.html (accessed on 11.12.2016).

<sup>34</sup> See more in section 8.

<sup>35</sup> Only a 10-page summary of the results of this forecast is accessible to the public. This document is available here: http://www.pse.pl/uploads/konte-ner/Prognoza\_pokrycia\_zapotrzebowania\_szczytowego\_na\_moc\_w\_latach\_2016-2035.pdf (accessed on 11.12.2016).

<sup>36</sup> For more deatils see: http://www.documents.clientearth.org/wp-content/uploads/library/2016-07-14-zalozenia-rynku-mocy-w-polsce-%E2%80%93-analiza-prawna-i-ekonomiczna-coll-pl.pdf, p. 6 (accessed on 11.12.2016).

consider the availability of cross-border interconnectors, does not envisage an improvement in energy efficiency and DSR is only considered in a modest range of 185-201 MW<sup>37</sup>.

Moreover, in the EC's Report of the Sector Inquiry the current resource adequacy methodologies used by Member States are questioned. The Report explicitly states that the findings therein will be used by the Commission in the case of an individual assessment<sup>38</sup>.

Conclusion: the proposed capacity market instrument might be inconsistent with this requirement of the EEAG.

#### 6.2. NEED FOR STATE INTERVENTION39

The Report of the Sector Inquiry indicated that in case long-term problems of ensuring capacity adequacy were identified a capacity mechanism based on a predetermined capacity volume and covering the whole market might be considered the most suitable one. The centralised auctioning scheme proposed in the Draft Act is an example of such a mechanism. Irrespective of the above, it should be pointed out that at all times the European Commission examines the need for State intervention on a case-by-case basis.

Conclusion: the proposed capacity market instrument is consistent with this requirement of the EEAG.

#### 6.3. APPROPRIATENESS<sup>40</sup>

In accordance with the Draft Act on the Capacity Market, the remuneration for the fulfilment of the capacity obligation would reward exclusively the pure availability service rendered by capacity providers. The proposed measure would entail remuneration exclusively for making a specific capacity level (expressed in MW) available and would not provide for any additional remuneration for the sale of electricity (expressed in MWh).

The capacity market is an open market and can offer appropriate incentives for capacity providers from both existing and new units. This mechanism is also open to capacity providers from DSR units, including energy storage operators, although, when interpreting the provisions of the Draft Act in accordance with the September "Functional Solutions of the Capacity Market" report DSR units are not treated equally to generating units. In this scope the EC's decision approving the British capacity market was taken to the Court of Justice of the European Union (CJEU)<sup>41</sup>. Moreover, the capacity market accommodates the possibly different implementation times for new investment projects. The proposed mechanism takes into account the forecast physical energy flows at cross-border interconnectors when defining the required reserve capacity in a given delivery period<sup>42</sup>.

<sup>37</sup> Ibidem

<sup>38</sup> Cf. COM(2016) 752 final, p. 18.

<sup>39</sup> Points 222-224 EEAG.

<sup>40</sup> Points 225-226 EEAG.

<sup>41</sup> It is further discussed in section 6.6 below.

 $<sup>\,</sup>$  42  $\,$  Cf. point 65 of "Functional Solutions of the Capacity Market".

Conclusion: the proposed capacity market instrument is consistent with this requirement of the EEAG.

#### 6.4. INCENTIVE EFFECT<sup>43</sup>

In the case of aid to ensure generation adequacy, the existence of an incentive effect is assessed in accordance with the general rules of the EEAG. The conditions for the incentive effect are met, in particular, when the aid induces the beneficiary to change its behaviour to improve the functioning of a secure, affordable and sustainable energy market. However, the aid must not compensate for the normal business risk related to an economic activity.

The EEAG provides that the existence of an incentive effect can be presumed when aid is awarded on the basis of a competitive bidding process, such as the auction mechanism<sup>44</sup>. This also applies to cases where the implementation on a given project had started before the beneficiary submitted its aid application<sup>45</sup>.

Conclusion: the proposed capacity market instrument is consistent with this requirement of the EEAG.

#### 6.5. PROPORTIONALITY<sup>46</sup>

The capacity market is to be managed in the form of auctions. The EEAG presumes that this type of bidding procedure ensures, in principle, a reasonable rate of return for beneficiaries of aid to ensure generation adequacy. The proposed measure contains additional mechanisms to prevent windfall profits for capacity providers from units receiving State aid under other support schemes<sup>47</sup>. In principle, the capacity market is designed so as to ensure that the minimum capacity price at an auction is as close to zero as possible (the rule is one clearing price for all the units).

Conclusion: the proposed capacity market instrument is consistent with this requirement of the EEAG.

#### 6.6. AVOIDANCE OF UNDUE NEGATIVE EFFECTS ON COMPETITION AND TRADE<sup>48</sup>

In accordance with the EEAG, an aid measure should be designed so as to be able to include any generation capacity which can effectively contribute to addressing the generation adequacy problem; i.e. in particular, it should enable:

• the participation of providers offering resources with technical performance equivalent to that of generating units, such as Demand Side Management (DSM), interconnectors and energy storage (moreover, restrictions on the participation of the operators of such units in the capacity mechanism can only be justified by insufficient technical perfor-

<sup>43</sup> Point 237 EEAG.

<sup>44</sup> Cf. point 50 EEAG in conjunction with its point 52.

<sup>45</sup> Ibidem.

<sup>46</sup> Points 228-231 EEAG.

<sup>47</sup> Cf. Article 46 of the Draft Act on the Capacity Market.

<sup>48</sup> Points 232-233 EEAG.

mance compared with the performance required to address the generation capacity adequacy problem);

- the aggregation of both demand- and supply-side capacity units;
- the participation of operators from other Member States (where it is physically possible); and
- the participation of a sufficient number of generators to establish a competitive price for the generation capacity.

Moreover, an aid measure to ensure generation adequacy:

- should not restrict incentives to invest in interconnection capacity;
- should give preference to low-carbon generators (in the case where there are, at the same time, equivalent technical and economic parameters); and
- should include measures to ensure avoidance of negative effects on the internal market (including, in particular, those due to bidding restrictions or other measures undermining market coupling).

In comparing the above with the content of the Draft Act on the Capacity Market, it should be pointed out that this Draft Act:

- envisages that the providers from DSR units (including energy storage operators) may participate in the capacity market, but when interpreting the provisions of the Draft Act in accordance with the September "Functional Solutions of the Capacity Market" report they are not treated equally as capacity providers from generating units, i.e. they may conclude capacity agreements at most for one year (even in the case of new DSR investment projects), whereas the operators of new generating units may apply for capacity agreements covering even a period of 15 years<sup>49</sup>;
- provides that aggregated units, both DSR and generating ones, may participate in the capacity market;
- provides for a relatively high entry threshold for the participation in the capacity market for DSR units, i.e. 2 MW of achievable capacity (in the case of both single and aggregated DSR units); moreover, the government justifies the adoption of such a threshold by the "the optimum level of so-called granulation" rather than the failure of smaller units to ensure sufficient technical parameters;

<sup>49</sup> In consequence, it seems that the correct solution would be for new DSR projects to be treated equally as modernised generating units, which would enable capacity providers from such DSR units to conclude 5-year capacity agreements.

<sup>50</sup> Cf. the justification of the Draft Act, p. 6.

- it does not provide for the participation of capacity providers from other Member States, even if such participation is physically possible (this must be considered a bidding restriction which can undermine market coupling);
- may, but does not have to, give preference to capacity providers from new or modernised low-carbon generating units (depending on the contents of specific Regulations of the Minister of Energy which will lay down the parameters of particular main auctions);
   and
- may fail to ensure the participation of a sufficient number of generators to establish a competitive price for the generation capacity in the case where the Minister of Energy defines the capacity demand expected to be met by new or modernised capacity market units:
  - this concerns the cases where the capacity demand volume in the "basket" for new (or, respectively, modernised) units is equal to or greater than the total capacity volume of new units entered for participation in a given main auction,
  - bearing in mind that the highest price at which capacity agreements can be concluded is also known, if such a situation arises the outcome of the auction is almost certain before the auction begins,
  - in view of the above, in such a case the EEAG condition concerning the establishment of a competitive price of generation capacity will not be met.

As a result, the proposed capacity market is inconsistent with the EEAG conditions concerning avoidance of undue negative effects on competition and trade, as:

- it fails to provide that the capacity obligation may be fulfilled by capacity providers from other Member States, even if such participation would be physically possible and enforceable;
- it may possibly fail to treat capacity providers from DSR units equally as capacity providers from generating units<sup>51</sup>;
- it may possibly fail to ensure the participation of a sufficient number of generators to establish a competitive price of generation capacity in the case of particular main auctions which would have different outcomes for new or modernised capacity market units.

Conclusion: the proposed capacity market instrument is inconsistent with this requirement of the EEAG.

<sup>51</sup> It should be noted that in this scope the EC decision approving the British capacity market was taken to the CJEU. Cf. Cases T-788/14 MPF Holdings v Commission and T-793/14 Tempus Energy and Tempus Energy Technology v Commission.

#### 6.7. COMPLIANCE WITH ARTICLES 30 AND 110 TFEU

The European Commission also examines whether a given measure which would award State aid complies with Articles 30 and 110 TFEU. The case-law of the CJEU prohibits the imposition of discriminatory restrictions on product imports (including electricity) or the protection of domestic products in the competitive internal market<sup>52</sup>.

In the course of the process of examining the compatibility of the British capacity market with the EU internal market, Great Britain committed to the Commission to allow interconnectors to participate in capacity auctions<sup>53</sup> (and fulfilled this commitment<sup>54</sup>). In turn, starting in January 2017, the French decentralised capacity remuneration mechanism will be directly open to capacity providers (both from generating and DSR units) from the neighbouring Member States<sup>55</sup>. The original proposal did not give such an opportunity.

As indicated by the evolution of the case-law of the Commission described above, in order to ensure compatibility of the proposed capacity market with the EU internal market, provisions enabling the capacity providers from units located outside Poland to take part in auctions must be added to the Draft Act. It should be emphasised that appropriate regulations enabling operators generating electricity at installations located outside Poland to participate in auctions were added to the Act on Renewable Energy Sources<sup>56</sup>, with effect from 1 July 2016.

Conclusion: the proposed capacity market instrument is inconsistent with this requirement of the TFEU.

#### 6.8. CONCLUSIONS

In its proposed form, the capacity market may fail to be approved by the European Commission, given its incompatibility with the EU internal market in terms of:

- the objective of common interest;
- avoidance of undue negative effects on competition and trade; and
- non-compliance with Articles 30 and 110 TFEU.

<sup>52</sup> Cf. the judgment of the CJEU in Case C-213/96 Outokumpu Oy [1998], ECRI I-1777, paragraph 30.

<sup>53</sup> COM(2014) 5083 final, paragraph 160.

<sup>54</sup> Cf. National Grid, Final auction results, T-4 Capacity Market Auction for 2019/20.

 $<sup>55 \</sup>quad \text{http://europa.eu/rapid/press-release\_IP-15-6077\_en.htm} \ (accessed \ on \ 11.12.2016).$ 

 $<sup>\,</sup>$  Journal of Laws of 2015, Item 428, as amended. Cf. Article 73(8)-(12) of that Act.

### 7. Capacity market costs

- ◆ The values of the paid capacity charge as presented in the Regulatory Impact Assessment (RIA) will be as a total for all end users<sup>57</sup>:
  - approx. EUR 0.950 billion (PLN 4.150 billion) in 2021 (in the first supply year),
  - approx. EUR 1.150 billion (PLN 5.100 billion) in 2026 (in the sixth supply year),
  - as a total, approx. EUR 5.600 (PLN 24.500 billion) in the period from 2021 to 2026.
- ♦ The capacity market costs as presented in the RIA for household customers will be<sup>58</sup>:
  - approx. EUR 0.320 billion (PLN 1.400 billion) in 2021,
  - approx. EUR 0.390 billion (PLN 1.700 billion) in 2026,
  - as a total, approx. EUR 1.850 billion (PLN 8.100 billion) in the period from 2021 to 2026.

Bearing in mind that the values given above are net costs (i.e. minus VAT), the capacity market costs presented in the RIA will increase the electricity purchase costs for a typical household in Poland by about EUR 27-32 (PLN 120-140) a year.

Table 1. The capacity market costs which will be incurred by end users in the period from 2021 to 2035 – the lower estimate.

Year	Cost in PLN billion
2021	4,1
2022	4,3
2023	4,5
2024	4,7
2025	4,9
2026	5,1
2027	5,1
2028	5,1
2029	5,1
2030	5,1
2031	5,1
2032	5,1
2033	5,1
2034	5,1
2035	5,1
TOTAL in period from 2021 to 2035	73,5

SOURCE: OWN ELABORATION BASED ON THE DATA IN THE RIA.

 $<sup>57 \</sup>quad \text{Cf. http://legislacja.rcl.gov.pl/docs//2/12292758/12396022/12396023/dokument260355.pdf, the table on p. 12 (accessed on 11.12.2016).}$ 

<sup>58</sup> Ibidem.

The capacity market costs presented in the RIA do not give a full picture of the situation, as they cover only the first 6 years when the first 15-year capacity agreements for new capacity market units are to apply. Therefore, consideration should be given to the capacity market costs in the period from 2021 to 2035. The RIA does not give the annual monetary costs for the period from 2027 to 2035. Still, for estimation purposes it may be assumed that the costs will not be higher than the ones in 2026 (in practice, they may be higher if more capacity agreements are signed with new capacity market units in successive years, since these units will offer a higher price than existing and modernised units). Therefore, as the lower estimate, the total monetary cost for users will be EUR 16.8 billion (PLN 73.5 billion) in the period from 2021 to 2035.

The possibility of distinguishing separate auction "baskets" for new or modernised units should be interpreted as an attempt to reduce the overall capacity market cost. This would make it possible to very substantially reduce the total value of remunerations for the fulfilment of the capacity obligation. In the case of three different clearing prices, it should be assumed that:

- the clearing price (expressed in PLN/MW/year) for new units will be very high, but the contracted capacity volume will be relatively low;
- the clearing price for modernised units will be significantly lower than the price for new units, but substantially higher than the price for existing units;
- the clearing price for existing units will be low, since:
  - the operators of these units will benefit from any additional income (windfall profit);
  - there is an overcapacity in terms of quantity in this basket; consequently this will determine an intense price-based competition.

If the competence to allocate on an arbitrary basis a specific tranche of ordered capacity to new or modernised generating units is conferred to the Minister of Energy, this may transform the capacity market into a mechanism for granting selective aid to previously known energy undertakings. At present, 4 new generating units (Jaworzno, Kozienice, Opole and Turów) are under construction and if the Minister of Energy allocates a separate tranche to new capacity as part of the first auction<sup>59</sup>, then, irrespective of the size of the volume offered, the only providers will be State-controlled undertakings: ENEA, PGE and Tauron, since it takes 7-9 years to prepare, contract and build any power unit. ENEA, PGE and Tauron will propose a price equal to the maximum price determined by the Minister of Energy<sup>60</sup>. As a result, this will not be an auction, but an administrative allocation of high 15-year contracts with a predetermined price.

Summing up, it can be said that although the possibility of separating tranches for newly built power units is a good means of reducing the total capacity market cost, at the same time, this contradicts the very idea of a market as a set of competition rules which are stable in the long term and ensure a level playing field for competition among providers.

 $<sup>\,</sup>$  59  $\,$  In 2017 or 2018, with the first delivery period in 2021.

<sup>60</sup> Determined pursuant to the proposed Article 22(2)(2) of the Draft Act on the Capacity Market.

# 8. The Draft Act on the Capacity Market and the Proposal for a Regulation on the internal market for electricity

On 30 November 2016, the European Commission also published the so-called Winter Package ("Clean Energy for All Europeans"), consisting of proposals for 8 EU legal acts on energy. One of them is the Proposal for a Regulation on the internal market for electricity<sup>61</sup>, which includes, in particular, provisions on capacity mechanisms. In contrast to a directive, a regulation is a EU legal act which is binding in its entirety and directly applicable in all Member States<sup>62</sup>. The provisions of EU regulations have primacy of application over national laws.

As one of its aims and general principles, the Proposal for a Regulation on the internal market for electricity indicates decarbonisation<sup>63</sup>. In accordance with the content of the Proposal, the general principles regarding the operation of the electricity market shall, in particular, support decarbonisation, eliminate barriers to cross-border electricity flows and transactions, as well as provide for equal treatment for all technologies, for each of generation, energy storage and DSR<sup>64</sup>. Moreover, the entire Chapter 4 of the Proposal has been devoted to resource adequacy.

The Proposal lays down binding principles of carrying out the European resource adequacy assessment. Where such an assessment does not identify a resource adequacy concern a Member State shall not apply a capacity mechanism<sup>65</sup>.

The Proposal provides that all capacity mechanisms other than strategic capacity reserves shall be open to direct participation of capacity providers from other Member States (provided there is a network connection to the relevant bidding zone applying the mechanism) – on an equal footing as in the case of national capacity providers<sup>66</sup>. Moreover, where a given Member State intends to introduce a new capacity remuneration mechanism, it shall consult the proposal for this mechanism at least with its electrically connected Member States<sup>67</sup>.

Subsequently, in accordance with the Proposal considered, the new generating units for which "a final investment decision" has been made after the entry into force of the Regulation shall only be eligible to participate in the capacity remuneration mechanism in the case where the unit  ${\rm CO_2}$  emission factor is less than 550 g/kWh68. Moreover, where in a given Member State there is already a capacity remuneration mechanism in place, 5 years after the entry into force of the Regulation existing generating units which emit 550 g  ${\rm CO_2}$ /kWh or more shall not participate in this

 $<sup>61 \</sup>quad \text{http://ec.europa.eu/energy/sites/ener/files/documents/1\_en\_act\_part1\_v9.pdf (accessed on 11.12.2016)}.$ 

<sup>62</sup> See Article 288 paragraph 2 TFEU.

 $<sup>\,</sup>$  63  $\,$  See Article 1 of the Proposal for this Regulation.

<sup>64</sup> Cf. Article 3(1)(e),(g) and (i) of the Proposal for the Regulation.

<sup>65</sup> See Article 23(5) of the Proposal for the Regulation.

<sup>66</sup> See Article 21(1)-(2) of the Proposal for the Regulation.

 $<sup>\,</sup>$  67  $\,$  See Article 23(2) of the Proposal for the Regulation.

<sup>68</sup> See Article 23(4) first sentence of the Proposal for the Regulation.

mechanism, either<sup>69</sup>. At present, no coal-fired power plant which produces solely electricity is able to meet this requirement.

All the existing national capacity mechanisms shall adapt to comply with the requirements laid down in the Regulation by the date of its entry into force at the latest<sup>70</sup>. In accordance with the Proposal, the Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union<sup>71</sup>.

As a result of the above, it should be pointed out that the Draft Act on the Capacity Market is inconsistent with the Proposal for a Regulation on the internal market for electricity. In particular, the capacity remuneration mechanism proposed in the Draft Act completely fails to enable the participation of capacity providers from other Member States. Moreover, perhaps in the future neither new nor existing generating units which emit 550 g  $\mathrm{CO}_2$ /kWh or more will be able to participate in the national capacity mechanism. This poses the risk that it will be necessary to terminate capacity agreements with such units, in accordance with the same rules as those applied in the case of the compensation for the voluntary termination of Power Purchase Agreements<sup>72</sup> which the Commission assessed to be State aid incompatible with the EU internal market. In consequence, this poses the risk that it will be necessary to pay out remunerations to cover stranded costs to the operators of such units, without the possibility of enforcing the fulfillment of the capacity obligation from these providers.

Conclusion: the proposed capacity market instrument is inconsistent with the Proposal for a Regulation on the internal market for electricity.

<sup>69</sup> Cf. Article 23(4) second sentence of the Proposal for the Regulation.

<sup>70</sup> See Article 24 of the Proposal for the Regulation.

<sup>71</sup> See Article 65 of the Proposal for the Regulation.

<sup>72</sup> These issues are governed by the Act on the Rules Governing the Covering of Costs Incurred by Enterprises in Connection with the Early Termination of Power Purchase Agreements (Journal of Laws of 2007, No. 130, Item 905, as amended).