



## **Analysis by the Netherlands Authority for Consumers and Markets (ACM) of the planned agreement on closing down coal power plants from the 1980s as part of the Social and Economic Council of the Netherlands' *SER Energieakkoord***

This memo examines the question of whether the planned agreement on closing down coal power plants from the 1980s (hereafter referred to as: 'the agreement') can be reconciled with Section 6 of the Dutch Competition Act (Mw) and Article 101 of the Treaty on the Functioning of the European Union (TFEU). This analysis was prompted by a request filed by the trade association of the Dutch energy industry, Energie Nederland (hereafter: EN), which is a party to the *SER Energieakkoord*, or Energy Accord, of the Social and Economic Council of the Netherlands (SER, hereafter: the SER Energieakkoord). This analysis by ACM is based on information provided by EN, and on ACM's own (limited) investigation, which itself is partially based on a study by Dutch energy research institute ECN. Therefore, the analysis as formulated in this memo cannot be interpreted as a formal opinion (or leading towards one) about the agreement's reconcilability with Section 6 Mw and/or Article 101 TFEU.

### **The assessment of the agreement in the context of the SER Energieakkoord**

The agreement to close down coal power plants from the 1980s is one of many elements of the SER Energieakkoord for Sustainable Growth<sup>1</sup>. It is an accord between employers' associations, unions, environmental organizations, central, regional and local government, and other social organizations. The accord aims to help make energy supply in the Netherlands and the Dutch economy more sustainable. EN is one of the parties to the accord.

The SER Energieakkoord as such is not the object of this memo. This memo only concerns the planned agreement. The parties to the accord may argue that the accord (or parts thereof) must be seen as an indivisible whole. That position in itself is no reason to expand the agreement's assessment to other parts of the accord. EN's members were able to decide for themselves whether or not to include the agreement in the accord, provided that competition rules are observed. In that light, ACM takes the agreement itself as the starting point of its analysis. The pros and cons of the agreement are identified, which are directly and causally related to the agreement<sup>2</sup>. This memo explains what pros and cons these are.

### **Assessment under Section 6 (1) Mw and Article 101 (1) TFEU**

EN is an association of undertakings in the energy sector, which the electricity producers involved in the proposed agreement are also members of. The proposed agreement is the result of discussions between these producers within EN, and was put forward by EN during the negotiations about the SER Energieakkoord. In its preliminary opinion, ACM considers this agreement to be an agreement between undertakings, a decision by an association of undertakings and/or concerted practices

<sup>1</sup> This accord was signed and published on September 6, 2013. The SER Energieakkoord can be found on <http://www.ser.nl/en/publications/publications/2013/energy-agreement-sustainable-growth.aspx>.

<sup>2</sup> See: Guidelines on the application of Article 101(3) TFEU, marginal 54.



within the meaning of Section 6 (1) 1 Mw and Article 101 TFEU.

The next question that must be explored is whether or not the agreement is anticompetitive. The agreement essentially proposes coordinated closings of the following electricity plants, which were all built in the 1980s:

1. Amer 8 (Essent), capacity 645MW, to be closed down on 1-1-2016;
2. Borssele (Delta), capacity 406 MW, to be closed down on 1-1-2016;
3. Maasvlakte I (E.on), capacity 520 MW, to be closed down on 1-7-2017;
4. Maasvlakte II (E.on), capacity 520 MW, to be closed down on 1-7-2017;
5. Gelderland-13 (GdF), capacity 602 MW, to be closed down on 1-1-2016.

By reducing production capacity, the undertakings involved have less capacity to produce energy than they would have had without the agreement. The production capacity that is to be closed under the agreement represents approximately 10 percent of total production capacity available in the Netherlands. These are plants with similar cost structures that are in the same segment of the merit order. As a result of closing down these five plants, it becomes more likely that capacity with a higher cost price per unit of production must be utilized, given a certain level of demand. These are indications that the upward pressure on prices, which the agreement can be expected to generate, may be of real significance. Using a quantitative analysis, ACM looked into this in more detail as part of an assessment under Section 6 (3) Mw and Article 101 (3) TFEU (see below).

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EN noted that, at the very least, there is a Northwest European market on which the energy companies involved in the agreement have a combined market share of 7 percent. Although the increased interconnection capacity between the Netherlands and its neighboring countries has resulted in national markets becoming more interconnected than before, they have not become completely interconnected yet. Both the European Commission and ACM still assume that, when it comes to the production of electricity, there are national markets. The position of the undertakings involved in the agreement is substantial in this market. However, in a broader defined market, too, the undertakings involved do not appear to have such a weak position that Section 6 Mw and/or Article 101 TFEU would not apply to the agreement.

In order to put any potentially anticompetitive effects of the agreement into perspective, EN did point out the following circumstances:

- The Netherlands currently has a substantial overcapacity with regard to the production of electricity, as well as a varied capacity portfolio. The overcapacity is expected to increase over the next several years;
- Productivity levels among electricity producers are below par, which is a situation that will not improve over the next several years.

However, according to ACM, these are no reasons to conclude otherwise with regard to the question



of whether Section 6 (1) Mw and Article 101 (1) TFEU are applicable in this case. Based on the information at hand, ACM finds it plausible that these provisions apply to the agreement.

### **Assessment under Section 6 (3) Mw and Article 101 (3) TFEU**

Under paragraph 3 of Section 6 Mw and of Article 101 TFEU respectively, an exception can be allowed to the prohibition as laid down in the first paragraph of these provisions if all of the following four conditions (two positive and two negative ones) are met:

1. The agreement contributes to the improvement of the production or distribution of goods or to the promotion of technical or economic progress;
2. The agreement allows consumers a fair share of the resulting benefit;
3. No restrictions that are not indispensable are imposed on the undertaking involved;
4. Competition is not eliminated in respect of a substantial part of the products or goods in question.

It is the responsibility of the undertakings that claim an exception to demonstrate convincingly enough that these four conditions have been met.

ACM is of the opinion that environmental benefits that are the result of making energy supply more sustainable can be considered benefits within the meaning of the aforementioned conditions. In the draft version of its Position Paper on Competition & Sustainability, too, ACM is of the opinion that a more sustainable production may promote welfare<sup>3</sup>. Against this background, ACM performed its analysis of the question of whether the agreement is reconcilable with Section 6 Mw and Article 101 TFEU respectively.

EN argued that the agreement fits in European and Dutch policies on sustainability, reduction of air pollutant emissions, and making energy production more sustainable. As yet, however, it has insufficiently been made clear and concrete to what extent, in terms of Section 6 Mw and Article 101 TFEU, these benefits offset the drawbacks of the agreement, which are price increases for buyers.

Taking into consideration the social importance of the agreement and, more generally speaking, of the SER Energieakkoord, ACM carried out its own assessment of the anticipated effects of the agreement. In this assessment, ACM used, among other information, calculations that ECN made by order of ACM. This assessment focused in particular on determining what benefits the agreement is expected to produce, and on the extent to which these benefits are able to offset the drawbacks that buyers of electricity in the Netherlands may have as a result of the agreement. ECN's calculations have been based on a model that was also used for the impact calculation of the SER Energieakkoord by order of the parties to the accord.

EN requested research firm Ecorys to comment on the provisional findings of ACM and on ECN's study. EN's comments and Ecorys' findings will be discussed below, insofar they are relevant.

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<sup>3</sup> ACM draft version of its *Position Paper* Competition & Sustainability, page 12.



### *The environmental effects*

Closing down the plants in question will lead to emission reductions of carbon dioxide (CO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>) and particles. ECN's calculations revealed that closing down the plants will result in an average annual emission reduction of 4.7 mton CO<sub>2</sub>, 1.5 kton NO<sub>x</sub>, 2.0 kton SO<sub>2</sub> and 0.1 kton particles over the period of 2016-2021. From 2022, the agreement will not lead to any additional emission reductions, because it can be expected that, for commercial reasons, the plants in question will be closed at that point anyway, according to ECN<sup>4</sup>.

The emission reduction of SO<sub>2</sub>, NO<sub>x</sub> and particles can help improve air quality in the Netherlands, or savings can be achieved in relation to the measures that should be taken otherwise in order to realize the same improvement. ACM is of the opinion that, in principle, this can be taken into consideration when assessing the question of whether Section 6 (3) and Article 101 (3) TFEU respectively apply.

With regard to the reduction of CO<sub>2</sub> emissions, ACM estimates that this is not the case or, if anything at all, to a very limited extent at the most. If the electricity producers, as a result of the agreement, will have lower CO<sub>2</sub> emissions, they will subsequently make fewer claims to emission allowances. Other parties will then be able to use these allowances through the EU system of emissions trading (ETS). Therefore, it must be assumed that any CO<sub>2</sub> emission reduction is cancelled out by an increase in emissions elsewhere. This means that, with regard to CO<sub>2</sub> reduction, the agreement, as yet, does not produce any relevant environmental benefits. In this context, ACM also refers to the memos of the CPB Netherlands Bureau for Economic Policy Analysis<sup>5</sup>. The fact that, as a result of the agreement, fewer costs for emissions reduction are incurred elsewhere is a benefit that can be given little weight only. After all, this benefit is distributed over the entire ETS area, which means Dutch energy buyers will reap only a very small share thereof.

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That is why, in the assessment of the agreement's positive effects, only the emission reductions of NO<sub>x</sub>, SO<sub>2</sub> and particles are taken into account.

### *Valuation of the environmental effects*

In order to be able to value the agreement's positive environmental effects, ACM uses shadow prices, which is common practice when valuing the costs of polluting emissions or of the benefits of measures to prevent such emissions.

For the valuation of the emissions reductions of NO<sub>x</sub> and SO<sub>2</sub>, it is important to note that these emissions are capped at a national level (National Emissions Ceilings). With the emissions

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<sup>4</sup> In the calculations, it is assumed that, in accordance with the base scenario that has also been used in the impact calculation of the *SER Energieakkoord*, if the agreement did not exist, the plants Amer 8 and Gelderland 13 would be closed down on 1-1-2017, and the other plants on 1-1-2022.

<sup>5</sup> CPB Memo of 8 January 2013 *Interactie Milieu-beleidsinstrumenten met het ETS* and CPB Memo of 14 June 2013 *KBA Structuurvisie 6000 MW Windenergie op land*.



reductions, fewer other measures need to be taken in the Netherlands in order to prevent these ceilings from being exceeded. This results in a benefit for Dutch society, which can be quantified by using the prevention costs method. This means that the value of the agreement's environmental benefits is determined using the costs of other (efficient) measures that, as a consequence, do not have to be taken (avoided costs). Using this method, the reductions of NO<sub>x</sub> and SO<sub>2</sub> emissions can be valued at EUR 9.40 per kilo NO<sub>x</sub> and EUR 5.40 per kilo SO<sub>2</sub>.<sup>6</sup>

No emissions ceiling is currently in place for particles<sup>7</sup>. Therefore, the right approach for determining the value of emissions reductions is the damage costs approach. In this approach, it is assumed that the agreement actually leads to reduced emissions, and it is estimated what that reduction's value is for Dutch citizens (particularly in terms of health and life expectancy). The emissions reductions as a result of the agreement are thus projected at EUR 44.30 per kilo<sup>8</sup>.

The value of the aforementioned average emissions reductions of 1.5 kton NO<sub>x</sub>, 2.0 kton SO<sub>2</sub> and 0.1 kton particles is thus estimated at EUR 30 million in total per year over the period of 2016-2021 (that is EUR 180 million for the entire period).

#### *Price effect*

Using an existing model of the Dutch electricity market, ECN also estimated the agreement's effect on the wholesale electricity price. ECN used the same model for the impact calculation of the SER Energieakkoord by order of the parties to this accord. ECN estimates an average increase of the wholesale price of approximately 0.9 percent for the period of 2016 – 2021. This means that electricity buyers in the Netherlands (both business and private consumers) would have to pay a higher electricity price than they would have without the agreement. Assuming an estimated annual growth rate of 1.15 percent for electricity consumption (in accordance with the SER base scenario), ACM estimates an average annual increase in the costs of total electricity consumption in the Netherlands for the period of 2016 – 2021 of EUR 75 million (which is EUR 450 million for the entire period).

In these calculations, import and export flows have been taken into account, as well as already planned capacity expansions and reductions that are expected to take place even without the agreement. ACM thus used a scenario that closely resembled the real market. In addition, the open nature of the Dutch electricity market has also been taken into account. The current overcapacity and the weak profitability position of energy producers are no reason to rule differently on the agreement, because the calculations reveal that a price increase will occur nevertheless.

<sup>6</sup> CPB Background document *KBA Structuurvisie 6000 MW Windenergie op land*, 14 June 2013. See also: Warringa, Blom, Afman, *Effecten van de Regeling Groenprojecten*, ESB 16-8-2013, page 492 and CE Delft, *Handboek schaduwprizen*, March 2010.

<sup>7</sup> There are plans to introduce one in 2020.

<sup>8</sup> CPB Background document *KBA Structuurvisie 6000 MW Windenergie op land*, 14 June 2013.



### Assessment

When comparing the estimated price increase with the environmental benefits using the shadow prices, it is revealed that the agreement's expected drawbacks to the electricity consumers in terms of prices may be substantially higher than the estimated value of the positive environmental effects. This suggests that the positive conditions of Section 6 (3) Mw and Article 101 (3) TFEU respectively are not met.

Since the four conditions of these provisions are cumulative, it is not necessary to also assess whether the aforementioned negative conditions are met. That is why ACM did not look into the question of whether the undertakings involved in the agreement would have been able to realize the planned environmental effects in a less anticompetitive way. However, ACM does note that the undertakings could look into that alternative in more detail. After all, a less restrictive solution could result in reduced negative price effects, which, in the context of the assessment under Section 6 Mw and Article 101 TFEU, could lead to a different conclusion.

EN and Ecorys gave various comments in their responses to ACM's provisional findings. EN put forward that the electricity producers are only willing to commit themselves to the investments in wind turbines at sea if the agreement concerning the closings of the coal power plants can be implemented, and thus argued that the benefits thereof should be taken into account. Ecorys broadened the scope of this argument even further by arguing that the price increase as a result of the closings of the coal power plants will lead to a situation where investments in wind energy in general, as well as in solar energy, become less unprofitable, thereby realizing savings of EUR 18 million per year on government subsidies (SDE+). In ACM's point of view, the requirement of having a direct and causal relationship between the agreement and its resulting benefits is not met. Furthermore, even if this effect were to be taken into account, it would still not turn the negative balance of EUR 45 million a year into a positive one. This would be the case to an even lesser extent if only the savings on subsidies were taken into account, which were tied to the investments to which the electricity producers involved in the agreement had committed themselves<sup>9</sup>.

In addition, Ecorys pointed out the possible savings on imbalance costs, which it claimed had wrongly been left out of the assessment. In ACM's opinion, however, it is unlikely that the agreement will lead to welfare benefits in this area that are directly and causally related to the agreement. Insofar direct savings on the electricity producers' operational costs are concerned here, they are free to take them into account in their own individual decisions about whether closing down a plant sooner or keeping them open longer. Making an agreement is thus not the right approach, nor a necessary one, to realize such benefits. Similarly, insofar savings on government subsidies are concerned here, this cannot be designated as a direct and causal benefit resulting from the agreement.

EN put forward that the downward pressure that the agreement can exert on prices may result in

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<sup>9</sup> In that case, ACM estimates a saving of EUR 6 million instead of EUR 18 million.



fewer emissions allowances being made available in the next trading period than there would be otherwise. ACM believes that this possible effect of the agreement is too uncertain to be taken into account as a benefit, because there is no direct relationship between the price of emission allowances at any given point in time, and the amount of emissions allowances to be issued in the future.

EN and Ecorys made several comments about the assumptions ECN and ACM used in their calculations. These concerned, among other things, the expected price trends of fuel, the shadow prices used in the calculations, and the date on which the plants in question would have been closed down if no agreement had been made.

ACM's only comment to this is that, in its calculations, ACM used in part a model that was used in the impact calculation of the SER Energieakkoord, and which, as such, is not disputed. The calculation of the shadow prices is based on data that is widely used and comes from authoritative sources. A certain margin of error is inherent to economic projections such as the one at hand. However, errors can work both ways. In this case, such margins of error cannot be explained in favor of the undertakings concerned. Within the context of applying Section 6 (3) Mw and Article 101 (3) TFEU, the burden of proof of demonstrating convincingly that the conditions have been met falls on the undertakings that claim the exception.

ACM's analysis leads to the conclusion that the benefits of the agreement insufficiently offset the drawbacks to Dutch electricity buyers. That is why, in ACM's opinion, there is insufficient reason, even with reservations, to conclude that the third paragraphs of Section 6 Mw and of Article 101 TFEU apply to the agreement.

### **Conclusion**

The above has led to the conclusion that the proposed agreement on closing down coal power plants from the 1980s, as submitted to ACM, is likely to fall within the scope of Section 6, paragraph 1, Mw and of Article 101, paragraph 1, TFEU. The arguments that EN put forward to substantiate the claim that the third paragraphs of these provisions are also applicable, are, in ACM's opinion, as yet, not convincing enough.