



# Recommendations for inclusion of the Air Quality and National **Emissions Ceilings Directives in the Energy Community Treaty**

# 1. Introduction

The Treaty on the Establishment of the Energy Community (hereinafter referred to as the 'Energy Community Treaty') is an international treaty which provides for the creation of an integrated energy market (electricity, oil and gas) between the EU and the Contracting Parties. The Contracting Parties are the non-EU states located mostly in southeast Europe, namely Albania, Bosnia and Herzegovina, Georgia, Kosovo, North Macedonia, Montenegro, Moldova, Serbia, and Ukraine (hereinafter referred to as 'Contracting Parties').

The principal objective of the Energy Community Treaty is to implement part of the EU legislation (the acquis Communautaire) into the legal order of the Contracting Parties for improved integration of the energy markets. Namely, the Energy Community Treaty focuses on implementing acquis on energy, environment, competition and renewable energy. For the purpose of this analysis, attention is focused primarily on the *acquis* relating to the environment.

This analysis examines the legal options for implementing Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (hereinafter referred to as the 'AQ directive'), and Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of nation al emissions of certain atmospheric pollutants, (hereinafter referred to as the 'NEC directive') into the Energy Community Treaty, so that air pollution from coal power plants, as well as from other power plants using fossil fuels, can be reduced in the Contracting Parties' territories.

Since implementation of these directives will be less effective if pollution at the source is not reduced, focus is also given to Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants (hereinafter referred For more information:

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to as the **'LCP Directive'**), and Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (hereinafter referred to as the **'IE Directive'**). Whilst these are already partially implemented under the Energy Community *acquis on environment*, changes need to be made in order to ensure any new large combustion plants are in line with current EU standards.

Chapter 2 analyses the Energy Community Treaty's existing legal instruments. Recommendations for improvement, focusing mostly on the AQ and NEC Directives, are proposed in Chapter 3. Chapter 4 summarises the findings and the most important recommendations.

# 2. Existing Energy Community Treaty legal instruments for reducing air pollution from coal power plants

Article 2(1) (d) of the Energy Community Treaty prescribes that the **Contracting Parties shall improve their environmental situation** in line with the *acquis Communautaire on environment* provided for in Chapter III. Art. 12 – 17 of the Energy Community Treaty.

Article 16 of the Energy Community Treaty lists the EU directives to be implemented by the Contracting Parties as part of the *acquis Communautaire on environment*. The timetable for implementation of the EU directives is found in Annex II.

According to Articles 24 and 25 of the Energy Community Treaty, the **Contracting Parties are allowed to adopt new** *acquis* and to implement amendments to the existing *acquis*. Decisions to adopt new *acquis* and to amend existing legal commitments are generally made by a majority of the votes cast at the Ministerial Council<sup>1</sup> on the basis of a European Commission proposal, as stated in Article 79 of the Energy Community Treaty. The complete list of the acquis on environment<sup>2</sup> included in the Treaty is available online on the Energy Community website.

From the existing *acquis on environment*, two EU directives are relevant for the reduction of air pollution from coal power plants – the LCP directive and the IE Directive.

#### 2.1. The Large Combustion Plants Directive

The LCP Directive is part of the *acquis on environment* according to Article 16 of the Energy Community Treaty, with 31 December 2017 set as the **general implementation deadline** for the Contracting Parties<sup>3</sup> to legislatively limit flue gas emissions from combustion plants with a thermal capacity of at least 50 MW. The LCP directive applies to fossil fuel power plants and other large thermal plants such as petroleum refineries and steelworks. It specifies emission limits for sulphur dioxide ( $SO_2$ ), nitrogen oxides ( $NO_x$ ) and dust. Annexes III, VI and VII of the LCP directive set out the specific limit values.

With Decision 2013/05/MC-EnC<sup>4</sup> (24 October 2013), the Ministerial Council provided the Contracting Parties with the option to use **national emission reduction plans** (NERPs) until 31 December 2027. NERPs represent an alternative

<sup>1</sup> The Ministerial Council is an institution of the Energy Community, which consists of one representative of each Contracting Party and two representatives of the EU.

<sup>2</sup> Energy Community, Energy Community acquis, Energy Community, accessed 10 December 2021.

 $<sup>{\</sup>bf 3}$  There are exceptions for Ukraine and Georgia.





compliance option for implementing emission limit values that are **not verified at individual, plant-by-plant level**. The Contracting Party can instead choose to set the overall emission ceiling at the national level until the end of the implementation period, calculated using the LCP directive's emission limit values. The Contracting Parties have therefore some flexibility in deciding on the sequence of investments to be made in their respective energy sectors.

Another instrument adopted by the Ministerial Council is the **'opt-out'** (limited lifetime derogation). The Ministerial Council agreed in Decision 2016/19/MC-EnC<sup>5</sup> that the opt-out is valid between 1 January 2018 and 31 December 2023, and sets a limit of 20,000 operational hours per individual installation, which represents approximately 2.5 years of standard operation, meaning that a power plant running at a standard load level would have reached the end of its opt-out period by early 2020.

In conclusion, the LCP Directive provides a minimum standard of environmental protection through the reduction of air pollution from coal power plants.

However, it is important to note that since 6 January 2011, the LCP Directive is no longer in force in the EU Member States. It was superseded by the IE Directive, which entered fully into force in 2016 because the LCP Directive emission limit values no longer ensured a high level of environmental protection.

In addition, since other sources than coal plants contribute to air pollution, the implementation of the LCP Directive for the Contracting Parties needs to be accompanied by other legal instruments that ensure a higher level of environmental protection and limit air pollution to the lowest level possible.

#### 2.2. The Industrial Emissions Directive

According to Ministerial Council Decision 2013/06/MC-EnC,<sup>6</sup> only Chapter III, Annex V, and Article 72(3)-(4) of the IED form part of the *acquis on environment*. **The general implementation deadline is 1 January 2028 for existing power plants, and 1 January 2018 for new power plants.<sup>7</sup>** New power plants are defined as completely new constructions and complete retrofits of existing power plants.<sup>8</sup>

Chapter III of the IE Directive sets up **special provisions for combustion plants** with a total rated thermal input equal to or greater than 50 MW, irrespective of the type of fuel used. With respect to the reduction of air pollution from coal power plants, the most important provision from Chapter III is Article 30, which obliges Contracting Parties to comply with emission limit values prescribed in Parts 1 and 2 of Annex V **for sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and dust.** Article 72, paragraphs (3) and (4) of the IED provide for an annual inventory of sulphur dioxide, nitrogen

<sup>4</sup> Energy Community, <u>D/2013/05/MC-EnC: On the implementation of Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants, *Energy Community*, 24 October 2013.</u>

<sup>5</sup> Energy Community, <u>D/2016/19/MC-EnC</u>: on authorising exemption of plants from compliance with the emission limit values set by <u>Directive 2001/80/EC of the European Parliament and of the Council</u>, *Energy Community*, 14 October 2016.

<sup>6</sup> Energy Community, <u>D/2013/05/MC-EnC</u>: On the implementation of <u>Directive 2001/80/EC</u> of the <u>European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants</u>.

<sup>7</sup> There are exceptions for Georgia and Ukraine.

<sup>8</sup> Concerning the cut-off date for new plants, the Energy Community Secretariat's Policy Guidelines 02/2014 of 17 November 2014 states that, 'combustion plants that have been granted a permit before 1 January 2018, or the operators of which have submitted a complete application for a permit before that date (provided that such plants are put into operation no later than 1 January 2019), should be considered as existing plants under Article 1(2) of Ministerial Council Decision 2013/06/MC-EnC. All other plants should be considered as new plants under Article 1(2) of Ministerial Council decision D/2013/06/MC-EnC.





oxides and dust emissions from combustion plants, and for the annual reporting of relevant data to the European Commission.

Within the remaining parts of the IE Directive, which are not currently part of the *acquis on environment*, special attention should be given to Chapter II and Article 15(3) which set out that emission limit values shall be determined in line with the best available techniques (as laid out in the decision on the best available techniques (BAT) conclusions).

With regard to coal power plants, the emission limit values for large combustion plants are set out in the Commission Implementing Decision (EU) 2017/1442 of 31 July 2017, in line with the BAT conclusions (BATC) under Directive 2010/75/EU of the European Parliament and of the Council, hereinafter referred to as 'BATC for LCPs'.

In the EU, the BATC for existing LCPs<sup>9</sup> had to be implemented by 17 August 2021, and provides for stricter emission limit values than those mentioned in the Annex V of the IE Directive.<sup>10</sup> The **BATC for LCPs not only states the emission limit values for the traditional pollutants from coal power plants, such as sulphur dioxide, nitrogen oxides and dust, but also extends its scope to previously unregulated toxic pollutants, such as mercury (Hg).** 

The BATC for LCPs also apply to new power plants<sup>11</sup>, with emission limit values that are more stringent than for existing power plants. Making the BATC part of the *acquis on environment* will therefore increase environmental protection with regard to planned projects.

To conclude, compared to the emission limit values set in the LCP Directive and IE Directive Annex V, the emission limit values set in the BATC are significantly more stringent and will therefore deliver further environmental improvement for the Contracting Parties.

The binding standards for new projects in the Energy Community are currently only those in Annex V of the IE Directive, with the result that standards for the Contracting Parties can lag far behind those of the EU – a particularly relevant issue considering the long operating life of LCPs.

It is therefore recommended to make the whole IE Directive and the BATC for new LCPs part of the *acquis on environment*. A minimum requirement is that Chapters II and IV and Annex VI of the IE Directive should be made part of the *acquis on environment* for new plants, as recommended by the Ministerial Council of the Energy Community in 2018.<sup>12</sup>

<sup>9</sup> A large combustion plant is defined in the Scope of BATCs for LCPs (within the Annex to the BATC for LCPs) as any plant dealing with: 1) Combustion of fuels in installations with a total rated thermal input of 50 MW or more, only when this activity takes place in combustion plants with a total rated thermal input of 50 MW or more; 2) Gasification of coal or other fuels in installations with a total rated thermal input of 20 MW or more, only when this activity is directly associated to a combustion plant; or 3) Disposal or recovery of waste in waste co-incineration plants for non-hazardous waste with a capacity exceeding 3 tonnes per hour or for hazardous waste with a capacity exceeding 10 tonnes per day, only when this activity takes place in combustion plants covered under 1) above.

<sup>10</sup> The BATC for LCPs were annulled on 27 January 2021 by the EU's Court of Justice (case Case T-699/17) on procedural grounds (incorrect voting rules), although the BATC for LCPs will remain valid for 12 months following the judgement. In the meantime, the European Commission is planning to resubmit the same version of BATC for LCPs for a new approval, this time in line with the correct procedural rules as required by the CJEU.

<sup>11</sup> A new power plant is defined in the BATC as 'a combustion plant first permitted at the installation following the publication of these BAT conclusions or a complete replacement of a combustion plant on the existing foundations following the publication of these BAT conclusions'. The date of publication for BATCs was 17 August 2017.

<sup>12</sup> RECOMMENDATION OF THE MINISTERIAL COUNCIL OF THE ENERGY COMMUNITY 2018/03/MC-EnC to prepare the implementation of Chapter II, Chapter IV and Annex VI of Directive 2010/75/EU of the European Parliament and of the Council





#### 2.3. Conclusion

The *acquis on environment* contains legal instruments, namely the LCP Directive and Chapter III, Annex V and Article 72(3)(4) of the IE Directive, to reduce air pollution from coal power plants and other LCPs located in the Contracting Parties' territories, even if at significantly lower environmental protection levels than is possible according to the best available techniques.

Furthermore, all current legal instruments in the *acquis on environment* only target the reduction of the emissions at the individual sources of air pollution. To achieve more complex environmental protection, so-called horizontal legal instruments will need to be implemented to deal with a wider range of environmental components, including the protection of ambient air.

The next part of this analysis therefore proposes recommendations on improving air protection for the Contracting Parties through implementing horizontal legal instruments into the *acquis on environment*, namely the Air Quality (AQ) Directive and the National Emissions Ceiling (NEC) Directive.

Even though the main focus of the analysis is on reducing air pollution from coal power plants, the AQ and NEC Directives are also crucial for reducing air pollution from other energy sector sources, such as transportation and individual heating.

# 3. Recommendations for amendments to the Energy Community Treaty

At the 21<sup>st</sup> Environmental Task Force Meeting of the Energy Community on 25 November 2020, a European Commission (DG Environment) representative informed the Task Force about initial discussions for including new *acquis on environment* in the Energy Community Treaty. The AQ Directive and its fourth daughter directive <sup>13</sup> were included in these discussions. The importance of the NEC Directive was also highlighted.

According to the Conclusions from the meeting, most of the Contracting Parties welcomed the initiative. <sup>14</sup> As recorded by the Energy Community Secretariat; 'all of the proposals are highly relevant to the scope of the work of the Energy Community.' <sup>15</sup>

In order to broaden the *acquis on environment*, a formal proposal of the European Commission will need to be introduced, and the Ministerial Council has to approve the new *acquis* by majority vote (see Articles 24, 79 and 81 of the Energy Community Treaty). At the time of writing this analysis (November 2021), a proposal for broadening of the *acquis on environment* with the AQ and NEC Directives has not yet been submitted.

The chapters that follow provide a detailed overview of the regulatory instruments in the AQ and NEC Directives that are relevant for the objectives of the Energy Community. Each of the regulatory instruments is assessed with regard to its effectiveness and efficiency, further to the fitness check<sup>16</sup> that was conducted by the European Commission in 2019.

<sup>13 &</sup>lt;u>Directive 2004/107/EC</u> of the European Parliament and of the Council relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

<sup>14</sup> Energy Community Task Force on Environment, Conclusions of the 21st Meeting, 25 November 2020.

<sup>15</sup> Ibid, point 7.

<sup>16</sup> European Commission, Air Quality - Fitness Check of the AAQ Directives, accessed 10 December 2021.





In line with the principles of Better Regulation, the fitness check assesses whether the EU actions enshrined in the AQ Directive achieved their objectives without incurring disproportionate costs and remain justifiable. Recommendations for implementing the AQ and NEC Directives into the Energy Community Treaty are also provided.

#### 3.1. Analysis of the Air Quality Directive

According to Article 1, the AQ Directive was adopted to establish measures to:

- Define and establish objectives for ambient air quality to avoid, prevent or reduce harmful effects on human health and the environment as a whole;
- Assess the ambient air quality in Member States using common methods and criteria;
- Obtain ambient air quality information to help combat air pollution and nuisance, and to monitor long-term trends and improvements resulting from national and EU-wide measures;
- Ensure that information on air quality is made available to the public;
- Maintain air quality where it is good, and improve air quality where it is not;
- Promote increased cooperation between Member States in reducing air pollution.

In order to achieve these objectives, the AQ Directive provides a set of regulatory instruments, namely: air quality monitoring (Chapter II), air quality standards (Chapter III), air quality plans (Chapter IV) and air quality reporting and information (Chapter V).

Each of the mentioned regulatory instruments has the potential to directly influence emissions from both individual coal power plants and from energy production in general. It therefore falls within the scope of the Energy Community Treaty (in particular Article 2(1) and Article 3) to broaden the *acquis on environment* to include the above-mentioned AQ Directive chapters, or to include the entire AQ Directive.

#### 3.1.1. Air quality monitoring

A core regulatory instrument in the AQ Directive is air quality monitoring. Knowledge of the current state of air quality, and knowledge of the main sources of air pollution, are prerequisites for implementing effective environmental policies to limit air pollution.

The AQ Directive distinguishes between two types of pollutants, each having different monitoring requirements based on their specific chemical characteristics.

**The first group of pollutants** comprises sulphur dioxide, nitrogen dioxide and oxides, particulate matter, lead, benzene and carbon monoxide, which are regulated by Articles 6 through 8 of the AQ Directive. Article 6 establishes basic rules for air quality assessment; the situations when assessments should be conducted; the types of measuring methods that are required, and the scope of assessment that is required.





Articles 7 and 8 specify technical requirements for the monitoring, such as the number of sampling points and reference measurement methods. For example, according to Annex III: 'where contributions from industrial sources are to be assessed, at least one sampling point shall be installed downwind of the source in the nearest residential area.'<sup>17</sup>

**The second type of pollutants** is represented by ozone. It is regulated by Articles 9 through 11 of the AQ Directive, which contain special provisions related to ozone measurements.

**Monitoring both types of pollutants is relevant to the objectives of the Energy Community Treaty.** The first group contains pollutants that are directly emitted from coal power plants. The second type links to emissions from coal power plants less directly but profoundly – coal power plants emit nitrogen dioxide, which later transforms into ozone and oxygen. Ozone is one of the causes of smog that negatively affects the environment and people's health.<sup>18</sup>

According to the European Commission's 2019 fitness check, the legal provisions for monitoring air quality are still fit for purpose and provide reliable, objective and comparable information on air quality. However, according to the Commission: '[c]oncerns have been raised that the criteria as defined offer too much leeway to competent authorities and that more restrictively defined siting criteria or (additional) guidance would help ensure a higher degree of confidence in the comparability of monitored air quality.' More detailed guidance documents on air quality monitoring can be expected in the coming years, even though the overall requirements for air quality monitoring will remain the same.

To conclude, adding the AQ Directive's requirements for air quality monitoring into the Energy Community *acquis on environment* is recommended in order to increase the Contracting Parties' environmental protection.

#### 3.1.2. Air quality standards

The AQ Directive establishes a set of air quality standards (i.e. limit values and target values). Most important are the **limit values**, which impose an **absolute duty on Member States to achieve the standards by a given deadline** regardless of the costs involved.

**The target values** are **less strict**; Member States are required to meet them only 'when possible' and without incurring 'disproportionate costs' (see Articles 2(9) and 16(1) of the AQ Directive). As such, this makes the target values difficult to enforce. This chapter therefore focuses mainly on limit values.

Article 13 and Article 16(2) of the AQ Directive, set limit values for the following pollutants:

- Particulate matter (PM10 and PM2.5)
- Sulphur dioxide (SO<sub>2</sub>)
- Nitrogen dioxide (NO<sub>2</sub>)
- Lead
- Benzene

<sup>17</sup> Part B, point 1e of the Annex III to AQ Directive.

<sup>18</sup> U.S. Environmental Protection Agency, Final Cross-State Air Pollution Rule Update for the 2008 NAAQS, June 2017, 2.

<sup>19</sup> European Commission, <u>Fitness Check of the Ambient Air Quality Directives</u>, 28 November 2019, 83.





#### • Carbon monoxide

The AQ Directive limit values, based on those recommended in 2005 by the World Health Organization (WHO), are set with reference to a certain period of time. Typically, there are **annual average limits** and **shorter-term limits** (daily or hourly). Annual limits are designed to protect human health and the environment from long-term chronic exposure to the air pollutants; short-term limits are aimed at protection from acute exposure pollution episodes.

For PM10 and PM2.5, the AQ Directive limit values are considerably less stringent (i.e. higher) than those recommended by the WHO in 2005. Moreover, the 15-year-old WHO recommendations were updated in 2021 in line with updated scientific knowledge.<sup>20</sup> According to the new 2021 WHO recommendations, all of the AQ Directive's yearly limit values are considerably less stringent than required for the protection of human health.

The table below shows the limit values of pollutants that are the most relevant to pollution from coal power plants in comparison with the limit values recommended by the WHO in 2021:

Pollutant	Obligation stemming from AQ directive	Time period	Permitted annual exceedance	WHO recommended value from 2021
PM10	Daily limit value of 50 μg/m³	24 hours	No more than 35	45 μg/m³
	Annual limit value of 40 μg/m³	Calendar year	n/a	15 μg/m³
PM2.5	None.			15 μg/m³
	Annual limit value of 20 μg/m³	Calendar year	Calendar year	5 μg/m³
Nitrogen dioxide	Hourly limit value of 200 μg/m³	1 hour	No more than 18	Not set
				For daily limit recommended 25 μg/m³
	Annual limit value of 40 μg/m³	Calendar year	Calendar year	10 μg/m³
Sulphur dioxide	Hourly limit value of 350 μg/m³	1 hour	No more than 24	Not set
	Daily limit value of 125 μg/m³	24 hours	No more than 3	40 μg/m³

 $<sup>20 \</sup> World \ Health \ Organization, \underline{New \ Global \ Air \ Quality \ Guidelines \ aim \ to \ save \ millions \ of \ lives \ from \ air \ pollution}, September \ 2021.$ 





That the AQ Directive's limit values are not currently in line with the 2021 WHO recommendations is apparent in the 2019 fitness check. Whilst the updated WHO recommendations were not available in 2019, the European Commission concluded that the limit values 'are not fully aligned with existing scientific advice'. Special attention is given to the limit value for PM2.5: 'the discrepancy in fine particulate matter (PM2.5) continues to cause concern, as scientific evidence points to substantial health impacts attributable to exceedance of the WHO guidelines'. Indeed, the European Parliament urged the European Commission in 2019 'to act without delay on fine particulate matter by proposing the introduction of more stringent compliance values for these particles in EU legislation'.

In September 2021, the European Commission announced that the EU will conduct a revision of the AQ Directive to align limit values more closely with the new WHO recommendations.<sup>24</sup> It is therefore expected that in the coming years, the limit values will become more stringent (i.e. lower).

For the Energy Community *acquis on environment*, the limit values would ideally be set in line with the 2021 WHO recommendations. However, since amendment of the AQ Directive is not expected earlier than 2023, it is recommended that the existing limit values be implemented in the *acquis on environment* first. Then as new limit values are agreed by the EU, the Energy Community *acquis on environment* will need to be updated.<sup>25</sup> This approach will ensure a gradual and continuous reduction of air pollution in the Contracting Parties. Furthermore, the revision of AQ Directive at the EU level must not provide a reason for delaying its adoption and implementation in the Energy Community.

It is recommended that all the limit values set in the AQ Directive be implemented into the Energy Community *acquis on environment*, given that all of the regulated pollutants are emitted from the energy sector. For coal power plants, the most relevant limit values are for particulate matter, sulphur dioxide and nitrogen dioxide. Regarding other air quality standards, such as target values, it is recommended to enshrine these into the *acquis on environment* as well, even with the knowledge that their importance for environmental improvement will be lower than the priority limit values.

#### 3.1.3. Air quality reporting and information

Effective monitoring, assessment and dissemination of reliable and comparable air quality data is crucial for building public awareness of air quality issues and helping improve air pollution control and law enforcement.

According to Article 27 of the AQ Directive, Member States are obliged to **send validated air quality data to the European Commission once a year**, and to transmit up-to-date (near real-time) air quality data continuously in order to **inform the public about the current air pollution** (Article 26 of the AQ Directive). Reporting obligations include *inter alia* monitoring data and information about sampling points and assessment methods, exceedance situations and alerts, and air quality plans and measures adopted to improve air quality.

<sup>21</sup> European Commission, Fitness Check of the Ambient Air Quality Directives, 82.

<sup>22</sup> Ibid

<sup>23</sup> European Parliament, European Parliament resolution of 13 March 2019 on a Europe that protects: Clean air for all', March 2019.

<sup>24</sup> For further information see European Commission, Revision of the Air quality directive, accessed 10 December 2021.

 $<sup>25\,\</sup>mbox{According}$  to the rough estimate of the author of this analysis.





Since 2013, requirements for the reciprocal exchange of information between Member States and the European Commission have been governed by **Implementing Decision 2011/850/EU**. Air quality data is submitted via ereporting using the Reporting Obligation Database (EIONET) hosted by the European Environmental Agency.

According to the 2019 fitness check, the AQ Directive has 'facilitated the availability and accessibility of reliable and comparable air quality data across the EI, including by providing a clear structure to ensure the use of modern information technology.'26 The same information is, however, sometimes interpreted and presented to the public in different ways across Member States. The fitness check recommends that '[f]urther harmonization of the way air quality information is presented would be both desirable and help ensure even higher comparability.'27

Further to these findings, it is recommended that provisions on air quality reporting and information stemming from Articles 26 and 27 of the AQ Directive are included in the Energy Community *acquis on environment*. Whilst the scope of air quality reporting includes all emissions – both those from coal power plants and those from other sources (e.g., transport, heating, waste) – the energy sector is one of the leading sources of air pollution in most of the EU Member States<sup>28</sup> and other industrialised countries.<sup>29</sup>

Air quality reporting is critical to meeting the environmental improvement objectives prescribed in the Article 2(1) of the Energy Community Treaty, including through increased public awareness of air pollution.

### 3.1.3. Air quality plans

Air quality plans are one of the most important and powerful instruments in the AQ Directive. When and where ambient air concentrations of pollutants exceed the relevant limit values or target values, Article 23 of the AQ Directive requires Member States to develop an air quality plan with adequate measures to ensure that any exceedance periods are kept 'as short as possible'.

The requirements for individual air quality plans are prescribed in Section A, Annex XV of the AQ Directive. Air quality plans shall clearly localise the excess air pollution and provide an assessment of the situation, **qualify and quantify** the main emission sources responsible for the pollution, propose detailed measures to improve air quality with a timetable for their implementation, and include a detailed estimate of the expected impacts on air quality following implementation of each measure.

According to Article 25(1) of the AQ Directive, air quality plans shall be reported to the European Commission no later than two years after the exceedance occurred. Member States are obliged to report on apportioning of the source where exceedances occur, and the measures adopted. Using these reports, the Joint Research Centre of the EU hosts a Catalogue of Air Quality Measures<sup>30</sup> that showcases air quality measures and has proven successful in informing Member States on pollution reduction options.

Many of the measures are connected to the energy sector, including requiring the integrated pollution prevention and control permits of combustion plants to exceed BAT requirements, as well as regulating

<sup>26</sup> European Commission, Fitness Check of the Ambient Air Quality Directives, 84.

<sup>27</sup> Ibid

<sup>28</sup> European Environment Agency, <u>Air quality in Europe – 2018 report</u>, 2018.

<sup>29</sup> European Environment Agency, 2018 industrial pollution country profiles, 9 November 2018, 33.

<sup>30</sup> European Commission Joint Research Centre, Catalogue of Air Quality Measures, accessed 10 December 2021.





**emission control equipment and fuel quality.** Specific measures can include reducing the operating hours for certain facilities, additional emission controls for large facilities and accompanying utilities, and short-term restriction requirements during limit exceedance episodes. All of these measures can provide significant protection of both human health and the environment where facilities have fallen behind on implementation of the **requirements** set out in the LCP Directive, and also with linked activities that are not regulated by the LCP Directive (e.g. ash disposal).

In reality, air quality plans adopted by the EU Member States are often inadequate and in breach of Article 23 of the AQ Directive. According to the established NGO ClientEarth, common shortcomings include:

- Measures are inadequate to improve air quality within a reasonable time-frame
- Measures are not implemented or their implementation is delayed
- Measures are not supported by adequate information, so any assessment of whether they will be effective is impossible
- Plans are several years old and have not been updated despite continuing air quality problems
- Citizens and NGOs are not given adequate opportunities to participate in the formulation of air quality plans either no consultation takes place, or consultation is merely a token gesture – with views but not taken into consideration.<sup>31</sup>

In non-EU countries like the Energy Community Contracting Parties, the preparation of air quality plans is often delayed since they are not required to report them to the Commission, or when they are prepared the plans often lack clear implementation deadlines and financing mechanisms. This further impedes their effectiveness.

In this context, it is important to highlight the case law of the Court of Justice of the EU, which recognises a **right to clean air**, giving citizens directly affected the right to litigate in national courts against inadequate or ineffective air quality plans.<sup>32</sup> The right to litigate against ineffective air quality plans has also been assigned to environmental NGOs.<sup>33</sup>

The right to clean air is derived from the Aarhus Convention<sup>34</sup>, and is applicable to all Contracting Parties except Kosovo.<sup>35</sup> If air quality plans provisions are made part of the *acquis on environment*, citizens and environmental NGOs from the Contracting Parties will also need to have the right to litigate against inadequate air quality plans before their national courts, otherwise implementing effective air quality plan measures would be difficult to achieve.

The 2019 European Commission fitness check pointed out that 'case studies confirm that the requirements to adopt air quality plans or all necessary measures are among the most fundamental and compelling elements of the AAQ Directives for incentivizing remedial action by the Member States.'36 The fitness check further reports that 'while the approach to air

<sup>31</sup> Alan Andrews, The clean air handbook, a practical guide to EU air quality law, Client Earth, November 2015, 14.

<sup>32</sup> See for instance Judgement of the Court from 25 July 2008 in case C-237/07, Janecek v. Freistaat Bayern, EUR-Lex, 25 July 2008.

<sup>33</sup> Judgement of the Court in case <u>C-240/09 Lesoochranárske zoskupenie VLK v Ministerstvo životného prostredia Slovenskej republiky (2011)</u> <u>ECR I-12 in conjunction with the Deutsche Umwelthilfe e.V. v Land Hessen in the Administrative Court of Wiesbaden (2012)</u>, *Clean Air*, 4 January 2016

<sup>34</sup> Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 25 June 1998.

<sup>35</sup> For the list of contracting parties see: https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg\_no=XXVII-13&chapter=27

<sup>36</sup> European Commission, Fitness Check of the Ambient Air Quality Directives, 84.





quality plans can certainly be improved, the clear requirement to take remedial action when and where exceedances are observed has been decisive in triggering improvement in air quality, yet often with delay.<sup>37</sup>

In conclusion, it is highly recommended that Article 23 of the AQ Directive be made part of the *acquis on environment*, as it contains crucial instruments for air pollution reduction. Air quality plans effectively regulate emissions from the energy sector and so limit overall air pollution at relevant locations.

# 3.2. Analysis of the National Emission Ceilings Directive

A new NEC Directive came into force on 31 December 2016. Replacing earlier legislation (Directive 2011/81/EC), the new NEC Directive sets **emission reduction commitments for five main air pollutants** (sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and fine particulate matter PM2.5) **for the years 2020 to 2029 and from 2030 onwards** (Article 4 and Annex II of NEC directive). Each Member State's emission reduction commitments (in percentage terms) compared to 2005 are shown in Annex II of the NEC Directive.

The NEC Directive embeds reduction commitments for 2020 agreed by the EU and its Member States under the 2012 revised Gothenburg Protocol (under the Convention on Long-range Transboundary Air Pollution – LRTAP Convention). The more ambitious reduction commitments agreed for 2030 **aim to reduce air pollution by 50 per cent compared with 2005.** 

Only EU Member States are parties to the revised Gothenburg protocol. If the NEC Directive becomes a part of the *acquis on environment*, the Contracting Parties will set their own emission reduction commitments, as neither the NEC Directive nor the revised Gothenburg Protocol set specific reduction targets for them. It is recommended that the Contracting Parties adopt the same principle as the EU Member States and agree on an overall emission reduction target of 50 per cent by 2030 compared to 2005 emissions.

Article 6(1) of the NEC Directive requires that the Member States draw up **National Air Pollution Control Programmes** (NAPCP), prepared in accordance with Part 1 of Annex III to the Directive. <sup>38</sup> The NAPCP requires Member States to demonstrate how they intend to limit their annual anthropogenic emissions based on their emission reduction commitments. It provides Member States with a central governance instrument that allows them to coordinate and agree on their policies and measures to ensure national emission reduction commitments are met.

Preparation of NAPCPs requires consultation with and involvement of competent authorities at different levels and across several different sectors (environment, agriculture, energy, climate, transport, industry or finance) to ensure plans and programmes are coherent across policy areas.

The NAPCP is also a tool for communicating and involving the public in the process of a country formulating its pollution control policies. Compared to the air quality plan, the NAPC is a long-term strategic document, whereas the air quality plan is a mid-term strategic document.





On 26 June 2020, the Commission adopted its Report to the European Parliament and the Council<sup>39</sup> on the progress made on the implementation of Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants. The report presents the status of implementation across all aspects of the NEC Directive, from air pollutant emissions inventories to ecosystems impacts' monitoring. A large section of the report is devoted to the analysis of the National Air Pollution Control Programmes that Member States had to submit by 1 April 2019.

The report concludes that 'putting the implementation of Directive (EU) 2016/2284 on the right track from the outset is crucial in order to ensure timely reductions in air pollutants emissions, contribute effectively to improved human and ecosystem health'.

#### A further point concludes that:

as NAPCPs form a fundamental instrument of the Directive, it is all the more important that they are prepared in time and based on good quality data, updated when emission reduction commitments are projected not to be achieved, and in any case at least every four years. To this end, Member States have to continue to explore additional and more stringent measures to ensure further and fully effective reductions of their national air pollutant emissions in an efficient manner.

The LCP Directive, already part of the *acquis on environment*, also introduces national emission reduction plans in its Article 4(3), but these cover existing power plants (see Article 4(6) of the LCP Directive). **In comparison, the NAPCP, pursuant to the NEC Directive, covers all sources of air pollution, including new power plants and individual heating.** 

Potentially, the NAPCP can therefore fill the gap in the current scope of reporting by Contracting Parties, through the inclusion of individual heating, transport and other energy sub-sectors. It is important to note that the NEC Directive and its legal instruments are complex, and only indirectly regulate emissions from energy installations. The NAPCP is in essence an umbrella document for more detailed policies and strategies, such as air quality plans. Nevertheless, it can serve as a cornerstone for developing a more interconnected policy framework for reducing air pollution across the entire energy sector.

It is therefore recommended that the NEC Directive be included in the *acquis on environment* as a complementary tool to improve air quality protection for the energy sector, even if higher priority must be given to implementing the AQ Directive, given its direct impact on coal power plants.

Finally, even with NEC Directive being part of the *acquis on environment*, to be effective, the Contracting Parties shall set out their own emission reduction targets for the five pollutants (sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and fine particulate matter PM2.5), in line with the NEC Directive targets, specific to each Contracting Party.

<sup>39</sup> European Commission, <u>REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the progress made on the implementation of Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants, EUR-Lex, 26 June 2020.</u>





# 4. Conclusions and summary of the recommendations

The Energy Community Treaty currently embodies legal instruments aimed at reducing air pollution from the energy sector. The instruments that are currently part of the *acquis on environment* are either outdated, as in case of the LCP Directive, or transposed and implemented only partially, as in case of the IE Directive.

To improve the environment within the Contracting Parties by curbing energy sector emissions, it is recommended to amend the Energy Community *acquis on environment* in the following ways:

- Make the entire IE Directive, or at a minimum Chapters II, IV and Annex VI, and the BATC for LCPs, part of the *acquis on environment* for new plants.
- Make the entire AQ Directive part of the acquis on environment.
- Alternatively, adopt at least:
  - Chapter II of the AQ Directive, setting the rules for air quality monitoring, and Annexes I, II and III for setting
    data quality objectives, requirements for assessment of concentrations, and the locations of sampling
    points for assessment.
  - Articles 13 and 16(2) and Annexes XI and XIV of the AQ Directive setting limit values for SO<sub>2</sub>, NO<sub>2</sub>, PM10, PM2.5, benzene and lead.
  - Article 23 and Annex XV of the AQ Directive providing for air quality plans.
  - Articles 26 and 27 of the AQ Directive requiring effective reporting and public information on air quality.
- As soon as the EU adopts new limit values in line with the WHO 2021 recommendations, make these part of the acquis on environment.
- Make the entire NEC Directive part of the *acquis on environment* and agree on emission reduction targets for each Contracting Party.