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1. Current state

It is widely recognised that combustion plant emissions significantly contribute to air pollution. Energy Community Treaty's integral part is *acquis* on the environment. Those acts introduce into Energy Community instruments and regulations for environmental protection. It includes several EU Directives or their specified parts listed in Art. 16 of the Energy Community Treaty („ECT").

Among these acts, instruments relating to air quality protection are clearly missing. *Acquis communautaire* offers among others two Directives regulating air quality: (a) 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 „AQD") and Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants (hereinafter „NEC Directive").

This paper examines the options of implementation of AQD and NEC Directive in the Energy Community and determines their suitability for the Energy Community needs and answers these questions:

1. With the aim of reducing air pollution from coal power plants in the Energy Community countries, ***would the Air Quality Directive or National Emissions Ceiling Directive or both be most effective and practical to adapt for the network energy sector only****?*

2. How could the Directive(s) be adapted to cover pollution mainly resulting from the energy sector?

2. Implementability of the AQD and NEC Directive into ECT *acquis*

One of the aims pursuant to Art 2(1) a) ECT is that the Contracting Parties individually and the Energy Community as a whole are obliged to improve the environmental situation in relations to Network Energy and related energy efficiency. Energy Community has committed to protect the environment in relation to the electricity, oil and natural gas sectors.

Pursuant to Art. 2(d) ECT the task of the Energy Community shall be to organise the relations between the Parties and create a legal and economic framework in relation to Network Energy, as defined in paragraph 2, in order to improve the environmental situation in relation to Network Energy and related energy efficiency, foster the use of renewable energy, and set out the conditions for energy trade in the single regulatory space. It follows that Contracting Parties are to enact environmental regulations and effective legal framework for building permits and operational permits (as in Art. 3(a) and (b)).

Currently, environmental acquis does not include AQD and NEC Directive although they are key pieces of legislation with potential impact on direct regulation of individual sources of pollution.

3. Key instruments from AQD

AQD covers emissions of sulphur dioxide (SO_2), nitrogen dioxide and oxides of nitrogen (NO_x), particulate matter (PM_{10} and $PM_{2,5}$), lead (Pb), benzene and carbon monoxide (CO) (see Art. 5(1)).

For coal combustion power plants, especially SO_2, NO_x, PM_{10}, $PM_{2,5}$ and CO are relevant.[1] Also, it covers ozone pollution.[2]

The essence of AQD is its air quality management regulations, particularly plans and short-term plans and other obligations related to immediate air quality enacted in Chapter III of AQD. It contains several provisions on ambient air protection which are highly recommended to incorporate into ECT environmental acquis as powerful air quality protection provisions. It is common practice that local ambient air quality is considered in the building/operation permitting process; air is one of the fundamental factors on which environmental impact assessment is performed[3], broader reference in para. 2 of IED preamble.

AQD contains several general obligations of Member States[4] which make basis for all other instruments of AQD:

- Art. 12: obligation to **maintain the levels of given pollutants below limit values** and to endeavour to preserve the best ambient quality, compatible with sustainable development

- Art. 13: obligation to ensure that levels of given pollutants **do not exceed limit values**

- Art. 14: obligation to ensure **compliance with the critical levels**

There are two broader medium- and short-term instruments in Chapter III AQD that are considered the tool to achieve compliance with the obligations put forward by AQD.

I. Air quality plans (Art. 23)

Art. 23 introduces the obligation to establishing air quality plans in zones or agglomerations where levels of pollutants in ambient air have exceeded any limit value or target value and any relevant margin or tolerance. Air quality plans are a medium-term strategic document reflecting local air quality aiming to eliminate existing air quality limit exceedances in the shortest period possible. Therefore, when the plan explores causes of declining air quality, it can aim its measures specifically on the core of the cause, i. e. on the power plants sector/other sources of air pollution. It is a vital instrument for setting site-specific measures directly towards the source of pollution causing high levels of given pollutants – however AQD itself describes the measures rather vaguely.[5]

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[1] For more details on relevant pollutants, see here: http://www.eea.europa.eu/data-and-maps/indicators/main-anthropogenic-air-pollutant-emissions/assessment-1

[2] NO_x is a crutial precursor of ground-level ozone formation and therefore is relevant for coal combustion processes. AQD contains special provisions for ozone regulation and related obligations which are not discussed directly in this paper, however which can be easily adopted into Energy Community.

[3] Art. 3 of Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (85/337/EC).

[4] Where speaking about the EU Directives, the term Member States is used (pursuant to the Directives and referring to existing obligations of EU Member States). In relation to Energy Community, the term „Contracting Party" is used. This is only a technicality.

[5] Annex XV, Section A(8) AQD: Details of those measures or projects adopted with a view to reducing pollution: listing and description of all measures set out in the project, timetable for implementation, estimate of the improvement of air quality planned and of the expected time required to attain these objectives.

In cases of regulating ambient air quality, large stationary sources are directly regulated by the public administration which issues operating permits - these prescribe binding operating conditions which directly cover emission limit values (such as target values and long-term objectives, alert thresholds, information thresholds, limit values). This considered, air quality plans are able to set rules for the operation permitting process as well as strengthen the general principles of environmental principles, reinforce environmental quality standards as put forward in Art. 18 IED and EIA Directive and support setting stricter operating conditions due to the worsened air quality.

It is fitting to point out that according to Court of Justice of the EU, there is an obligation to take measures capable of reducing to a minimum the risk that the air quality limit values or alert thresholds may be exceeded and of ensuring a gradual return to a level below those values or thresholds, taking into account the factual circumstances and all opposing interests.[6]

Existing air quality plans have a variety of measures aiming at large stationary sources. Here are some examples:[7]

- usage limit for certain facilities
- additional emission control for large facilities
- short-term measures (restrictions) during limit exceedance episodes
- additional measures concerning ozone, with a distinction between regular and "urgent" measures, depending on ozone level
- introducing filter systems for reduction of PM_{10}
- identifying large stationary sources with significant impact on air quality and researching possible emission reducing measures for particular sources or area
- introducing particular measures for (existing) individual sources pollution in order to reduce dust, SO_2 and NO_x pollution
- emphasising application of BAT on new stationary plants and gradually applying BAT to existing and modernising plants
- encouraging voluntary agreements with large stationary sources operators

The individual measures within the plan may then be subject to court review in case they are not implemented by the operators or otherwise met. Although the access to review procedures is not explicitly guaranteed by AQD, the access to justice principle is deeply rooted in acquis communautaire, in Art. 11(3) of the EIA Directive and Art. 9 of Aarhus Convention and it should undoubtedly apply to air quality plans as well – as it does in EU countries. In *the Janecek case*, Court of Justice ruled that individuals directly concerned by a risk that the limit values or alert thresholds may be exceeded can require the competent authorities to draw up an air quality plan where such

[6] Judgement of the Court from 25 July 2008 in case C-237/07, Janecek v. Freistaat Bayern, para. 47.
[7] Examples of particular measures taken from UK, French, Slovak and Czech air quality plans as well as studies performed for the European Commission, see: http://ec.europa.eu/environment/air/quality/legislation/management.htm.

risk exists if necessary by bringing an action before the (national) court.[8] Also in *the ClientEarth case,* It is incompatible with the binding nature of AQD, in principle, the possibility of the obligation imposed by the Directive being relied on by the persons concerned; individuals concerned by the limit values being exceeded must be in a position to require the competent authorities, if necessary by bringing an action before the courts having jurisdiction, to establish an air quality plan in accordance with AQD.[9] In addition, access to justice is one of three key concepts of the Aarhus Convention (Art. 9(2))[10]. The review procedures then take place under national procedural law and is not regulated on international level. As to sanctions for infringements situations, Art. 30 of AQD obliges states to determine penalties applicable to breaches of national provisions adopted pursuant to AQD; they are to be effective, proportionate and dissuasive. However, as these sanction mechanism relies on each state to set their own penalties, they might be very symbolic.

II. Short-term action plans (Art. 24 – especially para. 1-2)

As opposed to air quality plans, short-term action plans are drawn up in case there is a **mere risk** that one or more pollutant alert thresholds in Annex XII or limit values or target values specified in Annexes VII, XI and XIV be exceeded (see also para. 19 of AQD Preamble). Short-term action plans then introduce short term measures in order to reduce the risk or duration of such an exceedance. They even have the option of suspending activities contributing to the risk of the limit/target values or alert threshold exceedances.

Short-term action plans and air quality plans may be established concurrently. While air quality plans manage air quality in medium-term, short-term action plans react more flexibly on immediate air quality conditions and may introduce well targeted short-term measures balancing out any limit value exceedances and/or the risk thereof. As specified in Art. 23 AQD, however, air quality plans may include measures pursuant to Art. 24 AQD. As far as affecting energy power plants sector specifically, see air quality plans above.

The measures taken in short-term action plans are most commonly directed to restricting traffic emissions (speed limits, limiting heavy duty vehicles through traffic, restrictions on vehicles with odd or even number plates…), although not exclusively – restrictions on industrial emissions (i.e. including large stationary sources), restrictions on heating and wood burning, .[11]

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[8] Judgement of the Court from 25 July 2008 in case C-237/07, Janecek v. Freistaat Bayern, para. 39.

[9] Judgement of the Court from 19 November 2014 in case C-404/13, ClientEarth v. The Secretary of State for the Environment, Food and Rural Affairs, para. 55-56.

[10] Each Party shall, within the Framework of its national letislation, ensure that members of the public concerned having a sufficient interes tor, alternatively, maintaining impariment of a right, where the administrative procedural law of a Party requires this as a precondition, have access to a review procedure before a court of law and/or another independent and impartial body established by law, to challenge the substantive and procedural legality of any decision, act or omission subject to the provisions of article 6 and (…) of other relevant provisions of this Convention. See http://ec.europa.eu/environment/aarhus/
EU as a whole is a party to Aarhus Convention as well as it is to Energy Community.

[11] See AEA Report for European Commission. Best practices for Short term action plans. Accessible from: http://ec.europa.eu/environment/air/quality/legislation/pdf/SC5_Task%201_report.pdf

4. Other related provisions of AQD

A) Zoning (Art. 4)

Establishing zones and agglomerations is a terminological and executive precondition for AQD implementation. The territory of Contracting Parties is to be divided into administrative units where provisions or AQD would be carried out. This provision is not necessary to be implemented as long as administrative division of given Contracting Party is complementary with the purpose of zones and agglomeration in the sense of acquis communautaire. Implementation of this provision is therefore viewed as optional.

B) Air quality assessment

Implementation of assessment methods is *conditio sine qua non* for implementation of air quality management instruments as their application depends on air quality assessment outcomes. AQD recognises two groups of pollutants in relation to air quality assessment.

I. Assessment of ambient air quality in relation of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide (Art. 6-8)

Provision of Art. 6 establishes criteria for air quality assessment, i.e. in what cases assessment is performed, by what kind of measuring method and in what scope. Provisions of art. 7-8 then specify measurements and their characteristics (sampling points and reference measurement methods).

II. Assessment of ambient air quality in relation to ozone (Art. 9-11)

Articles 9-11 contain special provisions relating to ozone measurement. Ozone pollution is relevant in relation to energy production as combustion plants emit nitrogen dioxide which then can transform into ozone and oxygen. Ozone then causes smog which then affects people's health.

C) Reporting (Art. 27)

Member States pursuant Art. 27 are obliged to make available a number of information to the Commission, esp. list of zones and agglomerations in which the levels of one or more pollutants are higher than the limit values plus the margin of tolerance where applicable or higher than target values or critical levels. The notifications could be accepted by the Secretariat in Energy Community.

Also, pursuant to the Art. 23(1) AQD, Member States are obliged to communicate all air quality plans without delay. The AQD does not prescribe any particulate procedure for this "communication". Not communicating the plans could be considered a breach of the Energy Community legislation and would be treated as such pursuant to relevant provisions of ECT.

D) Note on Annexes

A number of AQD Annexes is of highly technical nature and therefore not assessable from legal point of view. The Energy Community may aim to set different limit values, implementation

deadlines and other relevant time periods or specific derogations – most probably more lenient than those set in the original AQD text. This depends also on the emission situation and state of ambient air quality in respective Contracting Parties.

The key Annexes are those setting specific limit values, target values, information and alert thresholds, critical levels and national exposure reduction targets for specific matters – binding values obliging Contracting Parties to meet them. The rest of the Annexes refer mostly to technical details of sampling and measurement methods.

5. Chapter II of the Industrial Emission Directive (IED)

In order to apply effective measures in air quality plans, it has been found crucial to adopt provisions related to best available techniques (BAT) as they are an important instrument in environmental protection. In addition, BAT reference documents on combustion plants are being adopted, making BATs even stronger and more particular of an argument. Emission regulations (IED) directly influences ambient air quality regulated by AQD/NEC Directive, those acts are interdependent and only when applied together, complex air quality protection can be achieved.

Among the BAT provision recommended to adopt is Art. 18 IED generally obliging Member States to apply BAT in the permitting process; where the environmental quality standards cannot be reached by doing so, additional measures ar to be included in the operation permit. This should apply to situations when limit or target values pursuant to AQD/NEC Directive are exceeded and Contracting Parties are obliged to take steps towards re-achieving prescribed values.

Another key provision is that of Art. 11 of IED stating basic principles governing the basic obligations of the operator (prevention principle, using BAT, waste generation prevention, effectivity of energy usage etc.).

Both of the above mentioned provisions are part of Chapter II IED which was so far not incorporated into ECT. Chapter II contains general provisions and applies also to activities regulated by Chapter III while the relationship between both Chapters is that of generality-speciality which is why FBS recommends adopting of Chapter II into Energy Community. However, the Balkan countries adopted the EU IPPC legislation that introduced application of BAT and its values into their national laws.[12]

6. Key instruments of NEC Directive

National emissions ceilings directive aims to limit emissions of acidifying and eutrophying pollutants and ozone precursors in order to protect the environment and human health. NEC Directive deals with following pollutants: sulphur dioxide (SO_2), nitrogen oxides (NO_x), volatile organic compounds (VOC) and ammonia (NH_3). The pollutants relevant for coal combustion power plants are especially SO_2 and NO_x.

Provision of Art. 4 stipulates that Contracting Parties shall limit their annual national emissions (all sources considered, not only large stationary sources) of given pollutants (SO2, NOx, VOC, NH3) to

[12] See tables in http://bankwatch.org/sites/default/files/FrankBold-briefing-EnCom-IED-02April2014.pdf

amounts not greater than the emission ceilings drawn up by NEC Directive – these emission ceilings should be adopted for each Contracting Party as NEC Directive naturally stipulates emission ceilings for EU members only.

In order to achieve the national emission ceiling values, Contracting Parties are obliged to draw up programmes for the progressive reduction of national emissions ("NERP").[13] The NERPs introduce a minimal standard or air quality protection applied on the territory of a Contracting Party as a whole. Art. 6 NEC Directive prescribes that NERPs should contain "*information on adopted and envisaged policies and measures and quantified estimates of the effect of these policies and measures on emissions of the pollutants*".

NERPs therefore do not prescribe specific measures on how to achieve the given national emission values and, as they are determined on national as opposed to regional level, the measures taken would be of more general and broad nature; instead, they set a general legal framework for air protection legislation/measures. This means that NERPs make Contracting Parties commit to drawing up a set of (legislative) measures aiming to reduce emissions in order to meet the emission ceilings, but not to draw up particular measures within the scope of NERP.

The LCPD Directive, adopted into Energy Community, also introduces national emission reduction plans in Art. 4(3); however, these cover only existing plants (see Art. 4(6)). NERPs pursuant to the NEC Directive cover all sources of air pollution, i.e. also new stationary plants, individual heating and traffic emissions. Potentially, it can fill the gap by covering new stationary plants for Energy Community.

As opposed to AQD, NEC Directive and its institutes are essentially complex and horizontal regulations which affect combustion power plants indirectly; it is not possible to formally separate a specific section of NEC Directive regulating only large combustion plants. However, since the NEC Directive is an extra step before establishing particular measures, the path towards specific regulations of large combustion plants is less straightforward than in the case of AQD.

The benefit of NEC Directive is that it obliges states to take at least general steps towards air quality regulation and to draw up a legislative strategy to do so.

Enforcement of NEC Directive provisions adopted to Energy Community and national laws respectively is very similar as in case of AQD, see above.

NEC Directive objectives are set to be accomplished by 2020. It is currently being reviewed as to including new pollutants and adjusting some aspects of the Directive as well as establishing new national emission reduction commitments applicable from 2020 for matters already covered by NEC Directive (Art. 4(1)).[14]

7. Environmental acquis within the ECT scope

Pursuant to Art. 3 of ECT, activities of the Energy Community shall include the **implementation by the Contracting Parties of the *acquis communautaire* on environment adopted by both the**

[13] Not to be confused with the LCPD NERP – covering different pollutants.

[14] For more details see http://ec.europa.eu/environment/air/pollutants/rev_nec_dir.htm and http://www.eeb.org/EEB/?LinkServID=9168DFDD-5056-B741-DBA5B64C92B81F9D

institutional Framework of the Energy Community and the specific situation of each of the Contracting Parties.

Pursuant to Art. 6, the Parties shall take **all appropriate measures, whether general or particular**, to ensure fulfilment of the obligations arising out of this Treaty.

Network Energy pursuant to Art 2(2) of ECT includes **the electricity and gas sectors** falling within the scope of the European Community Directives 2003/54/EC and 2003/55/EC. Pursuant to Articles 1 of both Directives, the Directives cover respectively generation, transmission, distribution and supply of electricity and transmission, distribution, supply and storage of natural gas.

Provision of Art. 3(2) shared with minimal variations by both aforementioned electricity and gas Directives commits to environmental protection alongside other interests (wording of the provision in Directive 2003/54/EC): *[…] Member States may impose on undertakings operating in the electricity sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and* ***environmental protection****, including energy efficiency and* ***climate protection****. Such obligations shall be clearly defined, transparent, non discriminatory, verifiable and shall guarantee equality of access for EU electricity companies to national consumers. In relation to security of supply, energy efficiency/demand-side management and* ***for the fulfilment of environmental goals****, as referred to in this paragraph, Member States may introduce the* ***implementation of long term planning****, taking into account the possibility of third parties seeking access to the system.*[15]

The issue of environmental protection **undoubtedly falls within the scope of Network Energy**. ECT is committed to promote united market in energy and cooperation between Contracting Party of the Energy Community as well as between Energy Community and European Union, but also to undertake steps towards protecting the environment from negative effects stemming from the energy production industry. Given that protection of the environment has prominent position among EU law and that EU continues to adopt acts with the aim of broadening and reinforcing environmental protection, the Energy Community is bound to follow the trend in the interest of environmental sustainability and responsibility, the same way it did in case of (partial) adoption of IED.[16]

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[15] Art. 3(2) Directive 2003/55/EC: *Member States may impose on undertakings operating in the gas sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies, and environmental protection, including energy efficiency and climate protection. Such obligations shall be clearly defined, transparent, non discriminatory, verifiable and shall guarantee equality of access for EU gas companies to national consumers. In relation to security of supply, energy efficiency/demand-side management and for the fulfilment of environmental goals, as referred to in this paragraph, Member States may introduce the implementation of long term planning, taking into account the possibility of third parties seeking access to the system*.

[16] Frank Bold emphasises that effective part of environmental acquis is closely connected to public participation (based on general EU environmental principles and Aarhus Convention). It is therefore encouraged to pursue adoption of public participation provisions connected to the environmental provisions as well.

8. Institutional background to adopting AQD/NEC Directive

Art. 67(b) of ECT stipulates that the Secretariat shall review the proper implementation by the Parties of their obligations under ECT and submit yearly progress reports to the Ministerial Council. Concurrently, Art. 47 of ECT stipulates that the Ministerial Council shall ensure that the objectives set out in this Treaty are attained. Also, the Ministerial Council may confer specific tasks, powers and obligations to carry out the policy of the Energy Community on the Secretariat or other Energy Community authorities.

From the ECT provisions we derive that it is the Secretariat who would be responsible for carrying out day-to-day tasks related to implementation of the Directives and accept reports from Contracting Parties. Therefore it would be sufficient – within the text of adopted Directives – to generally replace "Commission" with "Sectretariat" as well as "Member States" with "Contracting Parties".

9. Conclusion

The above analysis was to answer two questions:

1. With the aim of reducing air pollution from coal power plants in the Energy Community countries, ***would the Air Quality Directive or National Emissions Ceiling Directive or both be most effective and practical to adapt for the network energy sector only****?*

The analysis showed that AQD contains instruments that are in effect more straightforward in order to regulate coal combustion plants due to following reasons:

1. AQD stipulates the obligation to adopt air quality plans directly rather than through the obligation to draw up an emission reduction plan/strategy as stipulated in NEC Directive.
2. Although it is an "umbrella" directive (as is NEC Directive), under AQD regime it is possible to set location specific measures, implementation deadlines and/or periods for reaching the target air quality, specific emission limit values and other kinds of concrete emission limit thresholds.
3. It explicitly states obligations to actively strive to achieve and preserve good/satisfactory air quality.

The NEC Directive, on the other hand, brings following benefits:

1. It offers an instrument for projecting a complex conceptual solution on strategic/political and legal level.
2. In case there is political resistance from Contracting Parties, NEC Directive has bigger chance of being adopted into ECT as it is broader and less particular than the AQD and therefore – in theory – politically more acceptable for the Contracting Parties.

The risk of NEC Directive is, that while it ensures adopting some measures (eg. updated legislation, new legislation, particular measures or even air quality plans as described in AQD), it does not ensure that those measures will be – in your or general public or other NGO's view – sufficient and effective. The nature of the measures taken is purely on discretion of individual countries. The

public and NGOs would probably not be able to participate on drawing up the emission ceiling values, but it would be able to participate in the process.

2. How could the Directive(s) be adapted to cover pollution mainly resulting from the energy sector?

As said above, both Directives are general instruments to regulate air pollution regardless of its source. That can be done by emphasising the pollutants relevant for coal combustion sector. Most of the targeting, however, is to be done in the process of adopting individual measures – air quality plans and other measures drawn up pursuant to the NEC Directive.