I

(Resolutions, recommendations and opinions)

OPINIONS

EUROPEAN ECONOMIC AND SOCIAL COMMITTEE

517TH EESC PLENARY SESSION OF 25 AND 26 MAY 2016

Opinion of the European Economic and Social Committee on 'Indigenous coal in the EU energy transition'

(own-initiative opinion)

(2016/C 303/01)

Rapporteur-General: Dumitru FORNEA

Co-rapporteur-General: Renata EISENVORTOVA

On 19 February 2015 the European Economic and Social Committee, acting under Rule 29(2) of its Rules of Procedure, decided to draw up an own-initiative opinion on the:

Contribution of indigenous coal and lignite resources to the EU's energy security.

(own-initiative opinion)

The Consultative Commission on Industrial Change (CCMI), which was responsible for preparing the Committee's work on the subject, adopted its opinion on 5 November 2015.

At its meeting of 24 May 2016, the Bureau decided to change the title of the opinion to:

Indigenous coal in the EU energy transition.

At its 517th plenary session, held on 25 and 26 May 2016 (meeting of 25 May 2016), the European Economic and Social Committee adopted the following opinion by 139 votes to 17 with 54 abstentions.

1. **Conclusions and recommendations**

1.1 During the **energy transition towards the low-emission economy**, the EU energy system faces a period of profound technological, economic and social change that will affect many of the energy sectors, including the coal industry and hence the coal-mining regions of the EU.

1.2 In some Member States, **indigenous coal and lignite are still important for electricity and heat.** They contribute to a **secure and affordable energy supply, economic competitiveness** and play a **stabilising role in the energy system,** both technically and economically.

1.3 However, the currently active **coal-mining regions have to prepare for the phasing-out of coal production** to be in line with EU energy and climate policy decisions on fossil fuel use or for economic reasons.

1.4 The future of regions currently dependent on the use of coal and future living conditions there must be included in forward **planning covering two generations,** i.e. 25-50 years. Phasing out the use of coal for energy purposes in these regions cannot be allowed to lead to their stagnation. In view of their economic and social potential, these regions must be involved in implementing the EU's energy and climate policy. The sustainable development of these regions must be achieved through the guarantee of political, civic and social dialogues which must ensure that there are plans for transition at national, industry and enterprise levels.

1.5 To preserve energy security, a competitive industry, environmental protection, compliance with GHG emission reduction obligations and social cohesion in coal-mining regions, the EESC recommends a '**Transition support plan for the communities and regions dependent on coal production' (the 'Plan'),** to address coal industry restructuring issues during the energy transition so that coal-mining regions can adapt to change.

1.6 The '**Plan**' might be **developed by an advisory group** in cooperation with the **European Commission and the European Parliament.** Members of this advisory group should be representatives of the mining regions, unions, NGOs, R&D and the coal industry.

1.7 **The Plan should be based on three pillars:** (i) political, civic and social dialogues; (ii) economic, social and environmental investments; and (iii) investments in education, training, research and development, innovation and culture.

1.8 The Plan should **encourage regions to change,** stimulate innovative development, maintain investment attractiveness and create opportunities for employment and a decent life. In this transition process, it is necessary to take full advantage of the know-how and potential of the mining regions.

1.9 **Regional authorities, Member State governments and EU institutions must all engage** with the energy transition and the related restructuring of the coal-mining regions.

1.10 **The European Economic and Social Committee and the Committee of the Regions have the necessary experience to be involved in this process**, both at the European and national levels. They are also able to provide an effective framework for the political, social and civic dialogue that is necessary for consultation with people from the coal-mining regions.

1.11 In respect of the energy transition, one of the main concerns of EU coal-mining regions is the existence of an **adequate institutional and political framework that can boost the public and private investments** which will be needed in the coming years.

2. **EU energy transition**

2.1 In the last decade, the **EU** saw **major changes in its energy system.** The EU is on track to move to a low-carbon economy and meet its objectives for greenhouse gas emissions, energy efficiency and renewable energy sources in response to its '20-20-20' targets. In 2014, the EU approved the 2030 framework for climate and energy with a 40 % cut in greenhouse gas emissions, a 27 % share of renewable energy consumption and a 27 % energy saving. These mid-term targets aim to help the EU to meet its long-term 2050 greenhouse gas reduction target with an 80-95 % cut in greenhouse gas emissions.

2.2 Hence, the EU energy system is **moving away from an era dominated by fossil fuels** and power generation from large central power plants towards power generation from renewable energy sources and decentralised plants, while maximising the opportunities available from increased energy efficiency and better energy demand management.

2.3 The energy transition and the ambitious EU climate policy received strong support in the **Energy Union** project and were keenly promoted after the **Paris Agreement** which sends a clear signal to reduce emissions sufficiently to keep the global average temperature increase to below the agreed 2 °C limit by the end of the century.

2.4 In order to stabilise the climate, **far-reaching changes** in the energy systems of all economic sectors are **needed** ([1]).

2.5 The energy transition encompasses **technological, research, societal, cultural, economic and environmental aspects** and there is a clear implication that this means a more active role for individuals and communities. This process requires a special focus on research and development as it poses new challenges for the energy system and industry sectors which have to react and adapt to this situation.

3. **Coal and the coal industry in Europe**

3.1 The **coal industry** is one of the sectors **deeply affected by the energy transition**. For hundreds of years, coal was at the centre of industrial and societal developments in Europe and worldwide. The European Union itself was created by the act of a political will to pool the coal and steel production resources of the first six founding Member States ([2]).

3.2 Current **concerns about environmental protection, climate change and human health** ([3]), have led to a range of political and societal approaches that call into question the need to continue with the use of coal and other fossil fuels to produce electricity and heat.

3.3 With this new political approach, **the days of coal appear to be numbered**, in spite of the fact that currently, more than one quarter of the EU's electricity is still generated by 280 coal-fired power plants in 22 countries. Only six countries are coal-power free: Cyprus, Estonia, Latvia, Lithuania, Luxembourg and Malta ([4]).

3.4 While the idea of phasing out coal from the energy mix appears generally accepted in those Member States where there is no exploitation of indigenous coal resources, the same is not true in the case of the EU **coal-mining regions,** where the coal sector provides direct jobs for 240 000 workers. With jobs in the mining equipment industry, other jobs in the supply chain and indirect jobs, the industry supports close to **one million jobs,** many in regions with few other employment opportunities ([5]).

([1]) In 2015, the G7 countries agreed that a complete decarbonisation of the global economy is needed over the course of this century and therefore a 'transformation of the energy sectors by 2050'.

([2]) The Treaty establishing the European Coal and Steel Community was signed in Paris in 1951 and brought France Germany, Italy and the Benelux countries together in a Community with the aim of organising free movement of coal and steel and free access to sources of production. This treaty is the origin of the institutions as we know them today.

([3]) http://www.env-health.org/resources/press-releases/article/eur8-5-billion-in-health-costs

([4]) Greenpeace Report 'End of an Era: Why every European country needs a coal phase-out plan'.

([5]) Eurocoal (2013) *Coal industry across Europe*, p. 20.

3.5 Six **Member States** mine hard coal: the Czech Republic, Germany, Poland, Romania, Spain and the UK. Ten Member States exploit lignite as a competitive fuel for power generation: Bulgaria, the Czech Republic, Germany, Greece, Hungary, Poland, Romania, Slovakia, Slovenia, and Spain.

3.6 In these countries, **indigenous coal and lignite** play an important role **for security of supply** and so help to achieve EU energy security and **decrease high import dependency**. As set out in the European energy security strategy ([6]), the EU's external energy bill represents more than EUR 1 billion per day. In 2013, the total bill was around EUR 400 billion, i.e. more than a fifth of total EU imports. It was necessary to import 90 % of crude oil, 66 % of natural gas, 42 % of solid fuels and 40 % of nuclear fuel. In some EU Member States with large-scale indigenous coal production, for example in Germany and the Czech Republic, about 50 % of electricity is generated at coal-fired power plants. In Poland, this share exceeds 80 %.

3.7 Alongside its use in electricity production, coal **has many other uses.** It is used for cement manufacturing and can be converted to liquid fuels. Other major users of coal include steel refineries, paper manufacturers, the chemical and pharmaceutical industries, and the food processing sector.

3.8 Coal is also an essential ingredient in the manufacture of **specialist products** such as the activated carbon used in filters or the carbon fibre used in aerospace, civil engineering, the military sector, etc. Industrial processes are available for manufacturing synthetic fuels or the basic chemicals required by industry, such as methanol. From methanol, it is possible to manufacture a wide range of petrochemicals which are now produced from other fossil fuels.

3.9 To achieve the goal of a resilient Energy Union with a forward-looking climate change policy, the EU energy sectors have to work seriously and intensely on the necessary energy transition. The coal industry has to focus on **more efficient and cleaner use and develop alternative uses for coal.** Therefore, the EU should allocate the required funds for research and development in coal chemistry.

4. **Measures for less damaging and more efficient use of coal**

4.1 Even if the **phasing-out of coal** in the EU is **expected at some point in the future**, in some countries and mining regions coal will still be used for some decades to come. According to the Lisbon Treaty, Member States have the right to exploit their own energy resources and to determine the mix of energy sources, knowing that there should not be any subsidies for energy production and bearing all climate change obligations in mind. However, the coal industry has to respond to the ongoing energy transition, the movement **towards a low-carbon economy** and especially the decarbonisation goal by using all available measures and techniques for a less damaging and more efficient use of coal. In this respect, several beneficial and proven tools are worthy of mention: efficiency increase, flexibility and cogeneration.

4.2 Since electricity production accounts for the largest use of coal, **higher efficiency** is an important tool for the less polluting use of coal. With high efficiency, more electricity can be produced from each tonne of coal and CO_2 emissions can be reduced by 30 % or more. Good examples for coal-fired power plants with high efficiency can be found in Germany, in power plants working with optimised systems technology. These coal-fired power plants are also highly **flexible** and can increase or decrease their output quickly, thereby supporting intermittent renewables.

([6]) COM/2014/0330 final, 28.5.2014.

4.3 **Cogeneration (combined heat and power or CHP)** is an effective and efficient form of power generation, offering significant benefits, both in terms of energy and the environment. Conventional power generation plants emit waste heat into the environment. Cogeneration plants capture this heat and utilise it, therefore using the fuel more efficiently. The EU currently generates 11,7 % of its electricity using cogeneration ([7]).

4.4 In the medium term, there is a hope that **carbon capture and storage (CCS)** might play a role in a decarbonised economy. The existing processes have to be improved at scale, infrastructure and storage must be optimised and the competiveness of electricity from coal-fired plants with CCS must be clear before taking any action to require CCS. A cost-benefit and environmental impact analysis should be performed.

4.5 When considering the efficient and less polluting use of coal, alternative uses of coal should also be mentioned, for example **coal liquefaction**. Coal can be converted into liquid fuels — gasoline, diesel, and jet fuel or petrochemicals. The technologies are developed, but the investment and operational costs need to be taken into account.

5. **European coal-mining regions and their future**

5.1 ***Situation in the European coal-mining regions***

5.1.1 **Coal regions** are traditional industrial areas, where industrialisation was associated with exploiting the local mineral resources. The regions are therefore **historically related to the traditional sectors of the economy** with a major role played by the heavy metallurgical industry, the chemical industry and the energy sector. These sectors and the companies operating in them have been exposed to rapid changes in the external environment (market conditions, competition, customers, technologies) and fundamental internal changes (changes of ownership, the owners' objectives and capital strength) in recent years.

5.1.2 In addition to the major changes, some traditional industries have experienced stagnation, withdrawal from the region or even phase-outs. In some regions, European coal was unable to compete with imported coal or other fossil energy sources, which caused a dramatic decline in coal mining. To give but one example: 100 years ago, the UK produced around 300 million tonnes of coal each year and employed more than one million miners. Deindustrialisation has caused the loss of jobs and yet **coal extraction companies have remained some of the largest employers in a number of the regions.** The phasing out or complete discontinuation of coal companies' operations therefore has serious impacts on the relevant regions. This situation has had a major impact on small and medium-sized companies connected to mining companies.

5.1.3 In many countries, coal regions are characterised by a higher rate of **unemployment** than the national average and by **long-term unemployment.** It will therefore be difficult for any redundant miners to find new job opportunities. Thus, **poverty, stagnation and a deterioration in the standard of living, and the number of socially excluded areas and people** are all growing.

5.1.4 **The key problem caused by the rising rates of unemployment is the unbalanced supply and demand on the labour market.** In other words, in contrast to the high level of unemployment, demand for workers is very clear, but the demand is for skills that meet the labour market's requirements. **The educational profile of former miners,** with manual skills predominating, is not fully compatible with the labour market's needs in terms of the professional aspect (qualifications) and the personal aspect (motivation). When a large number of miners are laid off with the closure of a mine, very many jobs disappear virtually overnight, and this can produce strong local shocks.

([7]) Eurostat figures 2013; published 2015.

5.1.5 Extraction workers also display a much **less developed entrepreneurial spirit and little inclination for venturing into new businesses**. Their lack of enthusiasm for independent business is due to the long-lasting influence wielded over them by large and powerful mining companies that promoted an employee culture amongst their people, including an unwillingness to take risks. However, this trend can also be observed more generally. Even university students would prefer employment following graduation.

5.1.6 The situation is frequently exacerbated by the shortage of promising work and career prospects, **less favourable conditions for running independent business, low liveability indices and substandard innovation performance** with which the weaker role of science, research and development is connected. **Public R & D capacities are not sufficiently developed everywhere and the transfer of knowledge and applications to the business sector is not working very well.** It is also for these reasons that economic transformation is more challenging and difficult, and is not successful in all cases.

5.2 ***Restructuring problems in the coal-mining regions***

5.2.1 In EU coal-producing countries, **restructuring has often been carried out in response to crises,** without adequate political commitments. This has led to dramatic consequences for the quality of life for people in mining communities. Any reduction in coal production has the potential to create more unemployment, especially in mining regions undergoing long-term structural decline. Many former mineworkers and workers from businesses linked with mining face long-term and often permanent unemployment, thereby adding to impoverishment.

5.2.2 Unfortunately, with few exceptions, the **relevant European and national authorities have so far pursued an 'ostrich policy'** in terms of the expected impacts of climate policies on the coal-mining industry, avoiding any engagement in the appropriate civic and social dialogues with workers and citizens in mining communities. The memory of previous restructuring exercises, that were carried out on the basis of populist political promises which ultimately did not materialise in concrete measures for the economic redevelopment of these communities, are even now reflected in an increased level of mistrust on the part of workers in the ability of the authorities to effectively address the industrial restructuring processes.

5.2.3 At the same time, a **low level of empathy and a lack of real understanding of the problems facing the mining regions** can be observed at European and national level. There is a tendency towards excessive politicisation of the debate on the future of mining in the context of climate policies, especially in the coal-mining regions where coal extraction activities do not require State aid, but also in mining regions where the coal industry is already in a painful process of restructuring, politicians avoid the subject, because the transition measures towards a new regional profile do not secure any immediate electoral capital, are unpopular and need decades to show results.

5.2.4 As there is a **clear link between phasing out coal and climate change policy**, part of the European policy dealing with implementing climate objectives must be to **help those regions suffering from structural changes,** i.e. coal-mining regions.

5.2.5 There are **often** situations where local authorities **do not have the necessary financial and administrative capacity** to underwrite projects and manage them according to the specific requirements of the European Commission and national authorities, which is why European funds produce rather limited results in terms of opportunities and quality of life for people in coal-mining communities.

5.3 ***Conditions, possibilities and measures for restructuring coal-mining regions***

5.3.1 A 'just transition' ([8]) for the mining communities can be ensured if the national and European authorities can draw up a timely, **focused plan of measures** to: safeguard decent wages and job security for the workers involved; facilitate training, skills development and redeployment with decent work alternatives; respect human rights and guarantee social protection measures, including pensions, to support people through the transition; and secure investments in community renewal, including mine closures and mine site reclamation activities, or the construction and services associated with the energy transition.

5.3.2 Therefore, these regions will need urgent **financial and scientific assistance,** not just to evolve towards a new economic and social model, but also to manage, within a reasonable time-frame, the multiple hazards for human health and the environment associated with current and historic mining activities. In this respect, Member States' geological survey bodies and authorities responsible for mine closures and restoration must cooperate to collect and store mineral and mine data and map the main risks that are linked with past mining activities, mine closure or mine conservation.

5.3.3 The future of regions currently dependent on the use of coal and future living conditions there must be included in forward **planning covering two generations,** i.e. 25-50 years. Phasing out the use of coal for energy purposes in these regions cannot be allowed to lead to their stagnation. In view of their economic and social potential, these regions must be involved in implementing the EU's energy and climate policy. The sustainable development of these regions must be achieved through the guarantee of political, civic and social dialogues which must ensure that there are plans for transition at national, industry and enterprise level.

5.3.4 The decline in the **attractiveness for new foreign and domestic investors** should also be halted; in addition to the inadequate skill set of the workforce, attractiveness is marred by a shortage of suitable and well-prepared areas for business properties and of large strategic industrial zones.

5.3.5 Thus, the situation is not easy for former mineworkers in coal regions. Enlightened representatives of coal regions should appeal to their national governments and together they should **prepare for the restructuring and development of the coal regions** well **in advance of any planned reduction or phasing-out of coal mining**.

5.3.6 **Regional authorities, Member State governments and EU institutions must all engage** with the energy transition and the related restructuring in the coal-mining regions.

5.3.7 Nevertheless, **coal regions possess a considerable potential** for both restructuring and development. A set of development measures should be prepared, including the promotion of R & D in an innovative environment and embracing the traditional sectors that have survived in coal regions as well as new expanding sectors.

5.3.8 Existing energy infrastructure and the qualified human resources from the coal-mining regions must be fully harnessed, and in this respect, among the measures to be supported should be the **promotion of public and private investment.** Existing companies and other market players need to invest heavily in new production facilities, including renewable energy generation facilities.

([8]) ETUC Frontlines Briefing, October 2015, 'Climate justice: Paris and beyond'.

5.3.9 **Feasibility studies** might demonstrate that some coal-mining regions not only have a great potential for the production of solar, wind or geothermal energy, but are also more easily meeting other conditions required for investment and the deployment of green energy technologies: easy access to land for new production facilities, skilled human resources or a willingness to be retrained, local public authorities familiar with the challenges of the energy sector and local communities accustomed to industrial projects.

5.3.10 Current mining companies **own or hold under concession, significant areas of land** and/or hundreds of kilometres of underground galleries that can be used in the energy transition. Moreover, most mining units have a reliable interconnection with the regional and national networks for energy transportation.

5.3.11 In order to trigger further investment from the private sector, which has a key role to play, the **European Structural and Innovation (ESI) Funds** have ring-fenced a minimum of EUR 27 billion specifically for low-carbon economy investments, including energy efficiency. A minimum 12 %, 15 % or 20 % of the national European Regional Development Fund (ERDF) allocation needs to be invested to support the shift towards a low-carbon economy in all sectors in less developed, transition and more developed regions of the EU respectively. If the Cohesion Fund (CF) is used for such investments, the share increases to 15 % for less developed regions ([9]).

5.3.12 **European funds** can **partially** assist mining communities in their efforts towards economic diversification and energy transition, but **much of the investment** for economic development has to be provided from the **public funds of the Member States** concerned **or** by attracting new **private investment.**

5.3.13 The abovementioned aspects must be considered when framing measures to assist the coal-mining regions in this unavoidable process of energy transition and economic diversification, and the social partners, civil society and people in general from these regions, must be involved in identifying **new avenues of development for their communities.**

5.3.14 A **'Transition support plan for the communities and regions dependent on coal production'** should encourage regions to make a transition, stimulate innovative development, maintain investment attractiveness and create opportunities for employment and a decent life.

5.3.15 The **Plan** might be **developed by an advisory group in cooperation with the European Commission and the European Parliament.** Members of this advisory group should be representatives of mining regions, unions, NGOs, R & D and the coal industry.

5.3.16 The **Plan** of support to the communities and regions dependent on coal production should be based on **three pillars:**

— political, civic and social dialogues,

— economic, social and environmental investments,

— investments in education, training, research and development, innovation and culture.

5.4 ***Expected development in coal-mining regions***

5.4.1 The future of **the European coal-mining regions will develop in two directions**. In some coal-mining regions, a rapid or even precipitous phase-out of coal production can be expected, while in others, production may continue for several decades.

([9]) European Energy Security, COM/2014/0330 final, 28.5.2014, Chapter 3, page 7.

5.4.2 In the **first case**, the phase-out may be a consequence of the economic and market situation, which is complicated, especially in the European hard coal industry which competes with very low-priced coal imports. This makes life very difficult, even for those mines which were profitable until recently. In some regions, the government or the companies may decide on mine closures in line with the Lisbon Treaty and the right of EU Member States to decide on their energy mixes.

5.4.3 For these regions, it would be beneficial to **quickly establish a social programme** based on best practices from different EU coal-producing countries having experience with coal phase-out, or which are preparing for such a phase-out. In this context, the German experience can be useful: in Germany, hard coal mining will end in 2018, as planned. There are many other former coal-mining regions, for example, the UK, France, the Netherlands and Belgium, all with valuable experience.

5.4.4 In regions where **coal production** is expected to continue **in the longer term,** it is important to focus above all on the **efficient and less damaging use of this coal**. In the case of coal use for electricity generation, reducing emissions will continue to be a priority. The EU has the tools for this: the revised emission trading system which requires zero carbon emissions by 2058, the directive on industrial emissions and the new BAT reference document for large combustion plants which is nearing completion.

5.4.5 In the strategy for those coal regions with a longer-term future, **research and development** will play a very important role: further increases in power station efficiency will lead to greater reductions in emissions and lower fuel consumption. Increased power plant flexibility can help to support intermittent renewable energy sources. In addition to clean coal technologies or the use and storage of CO_2, alternative uses of coal should be taken into account.

5.4.6 However, even in the regions with longer-term prospects for coal mining, the priority must be to prepare for the end of coal mining and the restructuring of the coal-mining regions.

Brussels, 25 May 2016.

The President
of the European Economic and Social Committee
Georges DASSIS