**Round-Table – Coal regions in transition
29.05.2018, Grevenbroich, Germany**

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**Brief introduction - Hans-Jürgen Petrauschke**:

The structure change normally starts when an industry is ready. Mr. Petrauschke stressed that a preventive approach and the preparation for the transition in the next couple of decades is needed, not only to observe what is happening, but to be proactive. In Germany there are 4 mining regions and lignite extractions, this is open cast mining to produce the lignite. The Rhine mining area is affected by the lignite cast mining activities, the lignite is making contribution to ¼ percent of the electricity production, which is quite a lot. The number of jobs in the lignite industry is about 20000. The income point of view is important, 700 billion euros are being earned here and there 300500 local companies that receive orders from the subsidies. This is being impacted by the structural changes. The Rhine district always has been a reliable energy supplier; the energy consumption in this part of Germany is four times higher than in the rest of Germany. The open cast mining of lignite will stop, and political decisions have stepped up the speed, so there are resolutions concerning the mining activities. The rural districts have combined with the trade unions and municipalities; they established the IRR in order to have a framework and an organization to follow up the activities, and to resolve the problems that might be coming. The Federal Cabinet will establish a Structural Change Commission, which is by the end of the year will come up with a date when the lignite extractions should stop and this will change a lot of things. Mr. Petrauschke expressed his gratitude for the CCMI and for the dialogue in the Coal Regions Platform to share ideas and to contribute to the initiative. Afterwards, he introduced the discussion about the regional energy management, the use of lignite and the use of CO2 in industrial settings, and the follow up the utilization of areas which will no longer be used for production of lignite and the generation of electricity.

**Lucie Studničná:**

Ms Studničná explained the situation about the Bulgarian round table, introduced the main goals of the discussion and presented the cooperation with EC. The EESC would like to focus on the social dialogue, job creation, and positive outcomes of the transition, reskilling, and educational needs. She highlighted that the German model is a good learning possibility but the mutual dialogue is also needed. Ms Studničná thanked the possibility to organize the round table in Grevenbroich.

**Boris Linden:**

Mr. Linden noted that it is not a secret that some regions are benefitting more from the transition and for some it is more like a risk. He stated that Germany managed to get an overall recognition from the society and not only from Germany, but Germany is also trying to be a role model for other countries. He argued that the qualitative growth that Germany can bring into this project needs to benefit particularly those regions which are currently in risk. This requires a huge political effort to make sure that this qualitative growth has positive effects in the affected coal mining regions. The Structural Change Commission will deal with this issue, because the acceptance among the society can be easily lost if the project is heading to a wrong way and if the regions are losing out of the project.

**Ernst Kugeler:**

Mr. Kugeler introduced the energy political views of North Rhine-Westfalia (NRW). He highlighted the necessity and the significance of the power generation of coal: the special challenges in NRW; goals and framework conditions of the energy transition in Germany - which has to do with the special requirements of Germany (16 federal states and the federal government is primarily in charge of the legislation of the energy policies, so the federal states need to make sure that the needs are covered by the legislation) – and the technical challenges and development in NRW. He stated that despite of all the recent discussions regarding the coal phasing out, NRW is still producing about 75% of lignite and hard coal, which is a hard percentage of the fuel mix. Historically this federal state produced a lot of hard coal, which means a lot of people are working in this sector and also a lot of energy intensive industries are settled down here over the last decades. NRW needs to continue the security of supply, the affordable energy and the environmentally supply chain. The basic goal is to keep balance between these 3 aspects of the energy production. North Rhine-Westfalia is the largest power producer location in Germany, it would like to have the big energy intensive large operations there but it also wants to make sure that the smaller companies work for these operations and continue to have a safe place in NRW. 750000 workplaces in Germany are directly related to energy intensive sectors, and 250000 are located in NRW. One of the main goals of NRW is to continue to be a key player for the secure energy supply in Germany, which is not only a matter of capacity of the power plants but also to make sure that the district has the right infrastructure. By 2050 the plan is to reduce the CO2 emissions by 80%, huge efforts are needed, but even if Germany cannot reach this goal the phase out of the lignite and coal production will be done already, which is a great reduction regarding CO2 emissions. The lignite based power plants will be transferred to a back-up system status, these plants will be used as backup stations, they will be shut down but kept on standby, and the power consumers will be compensated for keeping them on standby. This process has already started and will be continued by 2020. The challenges and energy transition in Germany started around 15 years ago and accelerated after Fukushima, lots of preparation has started that time to prepare for the phase out, the CO2 reduction goals and the expansion of renewable energy. A lot has already happened, plant operators have taken huge actions, so the phase out and the shift to renewables can be adapted flexibly. In the past few decades they have been successful in stepping up efficiencies in hard-coal-fired power plants and gas-fired power plants and combined cycle power plants. The economic challenges are a huge problem. Mr. Kugeler stated that ever since the renewables have gone up they had difficulties, the renewables get subsidies between 25 and more million euros, and renewable energies got the advantage of being preferred to feed into the grid. It means that many lignite-fired power plants have got financial difficulties. He argued that this is a problem because in a few years later when the lignite-fired power plants will be needed to cover the low renewable energy feed, the power plants will no longer be available. In the same time electricity prices for the consumers went up, because of the renewable energies are supported by state subsidies, which is a real problem from the social point of view. As the lignite production is quite good in NRW, it makes a great contribution to the electricity, but by 2030 the contribution will be reduced. Mr. Kugeler stated that the region has large investment that they do not want to waste, so they want to have a conscious approach. New structures have been implemented but NRW still have a lot of problems, although luckily changes were not disruptive on a large scale. Mr. Kugeler argued that it is difficult to offer different jobs for upskilled people, but their experience from hard coal activities can be used. He highlighted that the energy industry is facing with new technologies, decentralization, digitalisation, and new business areas, and that it is our duty to help municipalities to find new tasks.

**Jens Hannes:**

Mr. Hannes explained the structure of the Rhine coal mining area – they have 3 large opencast mines, they have permits for certain production and once the opencast mine will be exploited, they will start the restructuring; one mine will turn into a lake and a leisure area, the other 2 opencast mines will continue to be used. The opencast mines are connected to different power plant areas, these 2 mines have different capacities and contents which are important for the energy mix. He stated that a certain energy mix is needed, so it is important to plan which mines can be shut down. With the expansion of the renewable energies, the power production of lignite will go down. Mr. Hannes argued that they will have to continue using all the installations that they have made already, to make sure that they have alternative usage of the lignite. Wind and solar power are extremely volatile; most of the production comes from the wind energy. He talked about the future scenarios that the power from fossil fuels will continue regardless how ambitious their plans are, they will not be able to cover the proportion from renewables that they aim for. He explained that they will always have to differentiate between capacity and the actual production, as they have as much capacity from the renewables as from the fossil fuels, but less than a third produced energy comes from renewables, because sometimes there is not enough or no wind or sun at all. They would like to upgrade their power plants so they can easily adapt for load changes, provide a large range of output, and adapt very flexibly to implement the technical production. Mr. Hannes emphasized that they already have the infrastructure, and they have already set up the power plants, which are more flexible, but it is important to make sure that all the different components can interact. He argued that instead of using lignite for producing energy, it could be used for other purposes, - as the technology is available, - and it could be replaced with biomass for instance or with other materials like plastic waste, - which would be a true mean of recycling plastics, - because even plastics can be mixed with other components and it could be used in great efficiency. Mr. Hannes stated that they work together with universities and organizations to test the gasification process, and to reduce the cost to a lower level. Moreover, the German coal mining regions cooperate together and try to develop projects, as well as with coal research institutes in Poland and Czech Republic. The plan is to continue to develop the decentralized approach. He highlighted that they also concerned about carbon dioxide as a resource; they have a pilot plant that has been running and managed to recover the carbon dioxide. They use hydrogen from renewable energies -, which is another component of this overall system, - with the help of a diesel generator, and return it to energy to close the carbon cycle.

**Matthias Dürbaum:**

Mr. Dürbaum talked about how the opencast lignite mine employees feel. He explained that they are disconcerted as there are many different policies in Germany and on the EU level regarding coal and lignite, and because they also face recently with massive reduction of the workforce. Most of the workers are in trade unions, so they are highly involved from a social perspective. They are constantly in contact with employers and they try to mitigate the social consequences of the reductions. There are many requirements on the company side, but it is important to deal with the concerns of the workforce. The average age of the workers is over 50, so with the structural changes they will need to make sure that the knowhow stays in the company. He stated that they have about 600 trainees, but it will not be enough to keep up the knowhow. They are struggling to find young people to start a traineeship. He argued that the people need answers what they can do after the mines are closed down and how to continue their careers. Trade unions are going to schools and try to make the students enthusiastic about starting a vocational training in opencast mines. Mr. Dürbaum noted that from a perspective of a European and a German citizen, it is hard to find out sometimes who is actually in charge, and to find the direction where the policy is clearly headed, hard to identify where the subsidies will come from, how can the subsidies and funds help them, and if they do get subsidies how can they efficiently be used. He also remarked that the workforce would like to be actively involved in the process, but the involvement is limited.

**Rudi Bertram:**

Mr. Bertram stated it is a major challenge to create alternatives after coal. They started the discussions a long time ago, and partly they have alternatives but also a lot of difficulties. He mentioned that there is a competition with other regions and with other industries, but they are lucky to have the academia and research centre in the region, which is a huge platform where they can go for cooperation and shape the future jointly. Mr. Bertram highlighted that the people who had education will not be jobless for a long time, they rather have to think about the people who are semi-skilled or not skilled at all; they need to think about upskilling them. He mentioned that they actively approach companies and companies come to them and ask what kind of areas can be available for them, which is important for infrastructure and also for creating new jobs. Mr. Bertram emphasized the role of the municipalities to care about the people, and find solutions for them, also to help them to understand the situation about the phasing out, so it will be socially accepted. He mentioned that companies many times require qualified workforce, so they have to invest in education and training as a city, but also as a federal state in order to bring people on the required skill level. They offer trainings in schools, adult education, and will offer alternatives for people in their current jobs. He stated that they try to convey the message to the people that it is no longer viable to stay on the same level for the rest of their lives. Mr. Bertram elaborated on the transition process and mentioned that even though the tax burden has been reduced, they still need subsidies. They need the federal state and Europe to subsidise, and to control the process and give a good direction to the people. He pointed out that it is important to think on a regional level and to make sure that the interests of different stakeholders are met and that companies stay in the region. Coal and lignite mining is going to be over in 15 years, and the alternatives are needed. Mr. Bertram argued that they have potential in the region but there are some places where they need more help, like in the local automotive industry. They need a new perspective on what is needed to be done in terms of expanding industrial surfaces. From the European perspective he mentioned the harbours and airports in the region; their networks in these areas need to be expanded.

**Kurt Vetten:**

Mr. Vetten introduced the idea about developing projects with universities, so they can work together on the transition. They have a building around the Hambach lignite mine, where they work on their projects. They specifically look into the issue of the security of supply. He remarked that intelligence is a key word regarding the challenges and issues, making sure that the grids are smart and that the conventional power plants will have to be the base for the security of supply for a considerable period of time. The keys to reach the goals are the flexibility of the system and to balance out the volatile production conditions. Mr. Vetten explained that they have to make sure that the system is physically stable for the generation storage and for the energy supply. He highlighted the need to look into the cross regional aspect, and also the cross industrial and cross sectorial aspects. The energy supply is the most critical part of all the supply networks, but the interlinkage between different sectors - e.g. plastic, traffic, gas production,- can make sure the security of supply. Network operators also play a role in ensuring security of supply. In Germany and in Europe there are transmission system operators, they divided Germany into 4 regions and they are usually in charge for the overall network in the respected region. They are in charge because they have direct connection with the control rooms of the power plants. Mr. Vetten explained when these power plants will phase out, they will still have the decentralized production unit and smaller transition networks at the communal level. He noted the importance to make sure that the system can adapt to the different fluctuation in the energy mix. They also try to deal with the huge number of different type of energy suppliers and storage units, as all these different components have a massive impact on the network. On the community level they have 900 individual different network operators, which make it hard to have an overview on the decentralized energy production. They want to introduce a new control centre in an energetically effective area. Mr. Vetten stated that they try to connect big producers, consumers as well as the critical infrastructure components such as traffic control systems and hospitals, and they will connect them to this centre in terms of information exchange. The core idea is to control and manage the network. He also introduced some technology developed projects and a market related study about the decentralized energy management, which was implemented with the help of energy management utilities. Mr. Vetten argued that they would like to develop a sustainable energy infrastructure, and to have energy on affordable prices. He stated that the energy policy is part of the industrial policy on the national level but there are conflicting interests. Sustainability should be a political and social priority, which is a long process, in North Rhine-Westfalia many towns has already taken it as a priority, but they do not have the full social acceptance yet. They would like to establish a regional program to accomplish the transition; they want to look for the regional possibilities and regional competencies that can be used. He remarked that they would like to use the skills of the people and the intelligence from the region sustainably, control the process inside the region, and the regional specialization gives them even a greater profile, what can be used on a European level as well.

**Hans-Jürgen Petrauschke:**

Mr. Petrauschke in his closing remarks elaborated on what will happen if the usage of lignite as a fuel of electricity will stop. He asked the question, how can they help to the people to find a new well-paying employment in the region? He emphasized that the power generation of lignite is a basis of their wealth in general, and the base for a safe and long-term energy supply. Mr. Petrauschke stated that they also have the aluminium ,the chemical, and the food industry which require a large amount of electricity and they are heavily dependent on a secure energy supply. He underlined that it is not enough to look only on how they create work places for the employees, but they also need to manage the security of supply on the long-term for affordable energy, without being dependent on Russia. Mr. Petrauschke pointed out that it is important to keep the eyes on all of these aspects, which sometimes seem contradictory.

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