

Notes GAC WS2 Plenary meeting

18 September, 13.30-15.45

Welcome by the Co-Chairs:

The co-chairs welcomed participants to the meeting and noted the excellent participation. The Co-Chairs informed the meeting once more that on their request, a “core team” of senior energy experts has advised them on the future direction of Work Stream 2 based on a draft discussion paper prepared by the co-chairs. This was done in such way as it was deemed to be the only way in the current corona-environment to achieve a deep-enough discussion. On the 6th August the minutes of the first core-team meeting have already been made available to all participants as well as the minutes of the first webinar. The minutes of the second meeting of the ‘core team’, as well as the discussion paper (the informal WS2 “Charter”) will be made available in due time. Although the ‘core team’ has now been dissolved after two meetings, the members have been asked by the co-chairs to remain available in the future to provide further advice, if/when needed. The co-chairs will be fully transparent on this and will report to the plenary meeting.

The co-chairs informed that this is the last possibility for Klaus-Dieter Borchardt to participate in the Work Stream 2 meeting in his capacity as high-level representative of the European Commission and Co-chair of GAC from the EU side. The co-chairs thanked Klaus-Dieter Borchardt for his work in the GAC and WS2 in particular for the past 7 years. Klaus-Dieter has not only been a regular attendant of WS2 meetings, but also a strong supporter of the process of informal consultations and exchange of views between Russia and the EU on issues of mutual importance in the common gas, and related agenda. It was acknowledged that Klaus-Dieter Borchardt contributed to the good working relationship between the two sides.

Alexander Tolparov read the thank-you letter to Klaus-Dieter Borchardt from his Russian counterpart as GAC co-chair, Deputy Minister of Energy Anatoly Yanovsky, and Andrey Konoplyanik read a thank-you letter to Klaus-Dieter from Elena Burmistrova, Deputy CEO of PJSC “Gazprom” and Director General of Gazprom Export LLC (the letters are attached).

Alexander Medvedev (the predecessor of E.Burmistrova in both her capacities) supports the appreciation for Klaus-Dieter Borchardt. He drew parallels with sports and noted that working with Klaus-Dieter Borchardt was a fair game. Russia-EU cooperation is inevitable. Klaus-Dieter Borchardt thanked Alexander Medvedev for being present with his words of appreciation.

Item 1: Views and perspectives from Russian side on decarbonization and on the EU Hydrogen and Energy System Integration Strategies

Alexander Tolparov (Russian Ministry of Energy) explained that the future of H2 has an important place in the work of the Russian side within its decarbonisation agenda on implementation of the Paris agreement. Earlier this June, the Russian government adopted the “Energy strategy of the Russian Federation until 2035” and H2 is mentioned in this strategy in a special section. Therefore, the Russian Federation is looking for development of new H2 production technologies both based on hydro and nuclear electricity (priorities of Rosatom and Rushydro companies) and on natural gas, especially on those without CO2 emissions such as pyrolysis (priority of Gazprom), and on effective end-use technologies for this energy source. In this regard, under the Ministry of energy a dedicated inter-ministerial working group was established with a number of specialised sub-groups on specific issues of the hydrogen value chain. As an outcome of this group, a document with a draft plan with regards

to the development of new hydrogen economy was submitted to the Russian government. This plan includes 40 items which foresee the elaboration of H2 strategy and a concept of both H2 production and its end-use in the Russian Federation. Numerous representatives of different entities and firms are involved in this work. The Russian Federation showed openness to mutually beneficial cooperation in this regard. The work of this working group could be part of this overall discussion in WS2 and in bilateral dialogues of Russia with individual EU countries. Currently, work is being done on the draft MoU as an umbrella for future work on hydrogen with Germany.

Kirill Neuymin (Gazprom) presented “Views and perspectives from Russian side on decarbonisation and on the EU hydrogen and energy system integrations strategies”. He explains multiple routes to decarbonization, pros and cons of colouring hydrogen, and special attention of Gazprom to methane splitting (pyrolysis). He explains that Gazprom believes that methane splitting with production of solid carbon is one of the best options for decarbonization because of its efficiency and sustainability. The forecasted level of GHG emissions from pyrolysis is close to the minimal market levels. He clarified Gazprom perspectives for the hydrogen business, explained advantages of using pyrolysis, and explained the scheme of gas conversion in low-temperature plasma. Then he addressed in detail different types of solid carbon and their application, since this by-product of pyrolysis may create a set of new commercial applications. He specifically paid attention to large market growth for 3-D printing based on carbon black, carbon soil enhancement, CO2 vs solid carbon. In the end, he proposed to rename Decarbonisation into Decarbondioxidization which will be a new – and more correct - name for the policy. A slide pack of K.Neuymin is attached. The co-chairs proposed to continue this discussion in the next meeting.

Item 2: “Clean Hydrogen from Natural Gas Alliance” proposal.

Andrey Konoplyanik explained the substance of his proposal and why it is in mutual benefit for the EU and Russia (presentation is attached).

He presented his vision of approximate potential areas of preferential use of key H2 production technologies in Europe under state regulation based on “technological neutrality” principles and approximate scheme of clean H2 production from natural gas placement within existing cross-border RF-EU gas value chain (gas grid) inside the EU close to prospective “hydrogen valleys”. He proposed a roadmap/action plan for collaborative efforts on clean H2 from CH4 for RF-EU actors and explained a possible structure of Russia-EU cooperative consortia on RD&D for “clean” (w/o CO2 emissions) H2 production from methane. Then he made a comparison and argued for the complementarity of two Clean H2 Alliances proposals (with no CO2 emissions in H2 production): EU-internal “Clean H2 Alliance” from EU Hydrogen Strategy (launched on 08.07.2020) and his newly proposed Russia-EU “Clean H2 from natural gas Alliance”. His main argument is that this avenue in gas decarbonization will both increase monetization of Russian gas by creating a new market niche for it in the EU and decrease the costs of EU decarbonization compared to its current mainstream avenue – reliance on renewable hydrogen.

The idea of establishing a ‘Clean Hydrogen from Natural Gas Alliance’ is to first create a platform where the two sides can discuss how this aim can be best achieved. In the next meetings, further details will be tackled on how this platform can be developed and operate.

The proposal received support from some participants mentioning that this fits very well with the circular economy and with the carbon removal exercise of the European Commission and therefore it fits very well within the ongoing regulatory work.

Item 3: Methane emissions reduction

Klaus-Dieter Borchardt (EU Commission) made a presentation based on the draft EU Methane emissions reduction strategy to be published soon.

Reflecting on the previous point, he mentioned that if the intention is to bring natural gas close to the consumption centers and to the pyrolyzers there, the problem of methane leakage is core. It is of paramount importance to credibly show that there are ways to reduce the methane leakage to a minimum at all levels. Molecules are important and therefore right solutions should be put in place. This is the reason why the European Commission have prepared a strategy on this exact subject. The primary objective is to make sure that companies apply considerably more precise measurements and choose a new widely applied methodology across the whole value chain. Only with accurate data the problem can be identified. One of European Commission's key objectives is to focus on reporting on methane emissions, monitoring by satellite detection in particular as it will allow to locate the so-called "super emitters".

The verification process is also extremely important. An independent international methane emissions observatory should be established, which would be tasked with verifying and publishing methane emissions data at global level. It would be best anchored in the UN framework and benefit from calibration of the IEA.

For the scope, the strategy will englobe the whole oil, gas and coal supply chains and for gas, it includes natural gas, LNG, gas storage and biomethane. Looking at those carriers, the European Commission think it can achieve one third reduction in the gas sector at no extra-cost for industry. Venting and flaring should be banned and only allowed for safety reasons. First approach would be to support voluntary initiatives as there are very good initiatives already in place. Working with the UN to extend the Oil & Gas Methane Partnership (OGMP) network to companies in the gas upstream, midstream and downstream is also part of the plan. The OGMP is currently the best tool for the identification and reporting in the gas sector. The European Commission suggests that companies in the oil, gas and coal sectors should improve the Leak Detection And Reporting (LDAR) program. The European Commission support also the voluntary action regarding this matter.

On the legislative action, there is a proposal for next year regarding the LDAR, which will impose an obligation to have certain standard respected in the respective LDAR of the companies. They will also invite the National Regulatory Authorities to recognise Methane LDAR related investment as allowed cost for regulated entities. There will be compulsory measurement & verification for all energy related methane emissions, building on what OGMP has achieved. There is also a plan for regulation to further improve the transparency on the total emissions of the fossil fuel consumed in the EU and to task the International Methane Emissions Observatory to compile and publish methane supply index of the EU at the international level. An international platform that could move this matter forward and come to common conclusion that will then be implemented is however missing.

European Commission's Methane Emissions strategy identifies a set of actions which hopefully will achieve significant reduction in methane emissions across the energy, agriculture and waste management sectors and to also make an impact at the international level. The European Commission encourages EU member states, non-EU members, external stakeholders etc to cooperate closely.

Some participants mentioned that in the context of carbon border-adjustment mechanism, natural gas should be treated in a special manner, despite the fact that it contains carbon molecules while crossing EU border, if it is destined for hydrogen production without CO₂ emissions downstream in the EU. This means that there is no CO₂ emissions related to natural gas in its end-use in the EU. The argument would be that such gas need not be taxed by such carbon border tax since its consumption

will not lead to CO₂ emissions within the EU. It would of course then mean that contractual ring-fencing of such natural gas supplies (adaptation of corresponding LTCs) should be organised to separate the gas flows entering the EU: those which lead and those which not lead to CO₂ emissions in corresponding natural gas end-use.

However, the European Commission does not share such treatment of natural gas for hydrogen production, as hydrogen coming from natural gas is not considered clean in the terminology of the European Commission. Nevertheless the argument to consider the CO₂ over the whole life cycle is fair and should be considered further.

Francisco de la Flor and Konstantin Romanov have commented on presentation of Klaus-Dieter Borchardt (see their sets of slides attached).

Konstantin Romanov (Gazprom) presented methane emissions (ME) regulation in Russia. He noted that since 1989 in USSR/Russia methane is considered as “pollutant” by law. Ministry of Energy is responsible for gas losses control (by establishing limits, system of reporting and control), and Ministry of Natural Resources and Environment for ME (by issuing permissions, providing monitoring and measurements, reporting and verification etc.). He explains the system of ME detection, including method of direct measuring methane leaks, instrument-calculation method for scoping methane leaks. He explains technical guidelines for measuring and results of experimental researches to determine ME at Gazprom facilities. He specifically mentioned that close to zero ME of Gazprom facilities were verified by KPMG and explained measurement campaigns (tests) with foreign partners since 1995. He paid special attention to methodological discrepancies between obligatory (mandatory) and voluntary metrics. He mentioned that article 37 of Decision 18/CMA.1 (COP / IPCC) says that “Each Party **shall** use the **100-year time-horizon** global warming potential (GWP) ... Each Party **may in addition** also use other metrics”. Since methane has much shorter life-cycle than CO₂, preferential use of the metrics with shorter time-horizon leads to increase of comparative harmful effect of methane versus CO₂ and thus creates artificial detrimental effect for use of natural gas, say, for production of clean hydrogen. Mr. Romanov demonstrated results of calculations of comparative emissions of gas supply chains to Europe from different geographical sources (both ME and GHG emissions) which showed that Russian gas supplies via Nord Stream-2 pipeline has the lowest ME and GHG emissions compared to Algerian, Australian, US and Qatari gas. He also noted surprising differences in EU countries in ME across the natural gas value chain. And finally he referred to Gazprom’s proposals as part of the procedure for public feedback on the roadmap of EU methane strategy.

Francisco de la Flor (GIE) stated that methane emissions management and reduction for the EU gas industry is not a new topic and even more so, it is among the top priorities and an opportunity to contribute to reaching the Paris Agreement targets, referring here to the methane industry report “Potential ways the gas industry can contribute to the reduction of methane emission”, report coordinated by GIE and MARCOGAZ. Mr de la Flor highlighted some activities and initiatives of the European gas industry in this perspective, such as an action plan, dissemination activities and training programmes, collaboration with non-EU companies and an assessment of methane emissions for gas transmission and distribution system operators. Mr de la Flor also emphasized the need for a common methane emissions reporting framework. In this sense, the gas industry collaborates with the European Commission and UNEP with the aim of having a common methane emissions reporting framework and a reporting template and a technical guide are under way. Mr de la Flor also referred to Best Practices Guides on reducing methane emissions (for TSOs, SSOs, LSOs and DSOs/through emissions identification, detection, measurement and quantification) and to the Guidelines for methane emissions target setting (it helps companies from the gas value chain to set methane

emission reduction targets as complement to mitigation strategies). Among the main activities, Mr de la Flor mentioned the efforts of the gas infrastructure business on R&D related to the detection and measurement of fugitive emissions from the gas transmission system. The gas industry is looking forward to the Communication from the Commission to the European Parliament, Council and the EESC and the Committee of the Regions on an EU strategy to reduce methane emissions.

Wrap-up and way forward by the Co-Chairs:

In the end of the meeting Klaus-Dieter Borchard once again thanked all the participants of WS2 for the pleasure of cooperative work through the past seven years that he has been involved in GAC and its WS2 activities. He will stay in the business after leaving the Commission and thus he hopes to meet with many of us in due course in his future professional capacity.

The co-chairs thanked everyone for their presentations and participation and look forward to the next webinar in October for which an invitation will be sent shortly. Participants who wish to send comments on the creation of the proposed Russia-European “Clean Hydrogen from Natural Gas Alliance” are invited to share them with the co-chairs so that a move forward on this proposal could be organised in the most effective way. Any critical comments about potentials barriers and potential solutions are also very welcome. The intention is to open the floor at the next WS2 meeting in October to WS2 participants and to have a debate on the issues presented at the webinar of 18/09 since we had insufficient time for this at this event due to the time constraints resulting from the farewells to Klaus-Dieter Borchardt.