Notes GAC WS2 Plenary meeting (online)

11 December, 10.00-12.00 CET

Welcome by the Co-Chairs:

The Co-Chairs welcomed the participants and wished everyone to stay healthy and safe. They announced the topic of the meeting – methane emissions – and pointed out that it would be on top of the agenda for years to come. Several speakers were invited to make presentations on different aspects and from different angles. The participants were also reminded of the Chatham House rules of the meeting.

The Co-Chairs also thanked Tatiana Mitrova for the invitation to the Skolkovo conference that took place in the beginning of December and included a number of distinguished guests, among them Executive Vice-President of the European Commission Frans Timmermans. They emphasized that climate agenda and gas issues present a good point for EU-Russia cooperation with numerous discussions at multiple levels, WS2 being one of them.

Item 1. Presentation "EU Methane emissions reduction strategy" by Catharina Sikow-Magny

C. Sikow-Magny explained that methane is the second biggest contributor to climate change responsible for 25% of man-made emissions. It is many times much more potent than many greenhouse gas emissions, compared to carbon dioxide, for example. In October 2020, the European Commission presented its Methane Strategy, as the EU needs tackle fugitive methane emissions much faster in view of 2030 targets. Therefore, reducing methane emissions is an important and urgent issue. She noted that the EU is largest importer of fossil gas, but methane is mostly released into the atmosphere before gas reaches the EU territory.

C. Sikow-Magny highlighted the key points of the Methane Strategy. She mentioned that in the short term, voluntary and business-led initiatives to rapidly reduced methane emissions in the energy sector will be encouraged, especially those in the field of leak detection. The European Commission will support the establishment of international independent methane emissions observatories having as their mission the collection, verification, and publication of methane emissions data. Besides, the methane emissions Supply Index should be developed for greater transparency and better understanding of methane emissions.

C. Sikow-Magny also said that the EU should play an active role in encouraging methane emissions reduction at a global level. She explained that this level of ambition stems from the fact that, despite the EU is only responsible for 5% of global methane emissions, it is nevertheless the largest importer of fossil gas, as well as the leader of the Copernicus program using satellite imagery. The EU's intention is to share data with the international community and to guide the global action in the field of leak detection. In 2021, a number of legislative proposals will be made, among them the introduction of an obligation to improve leak detection for gas infrastructure which is to be proposed by the end of next year. In parallel, the European Commission considers introducing legislation related to venting and flaring in the energy sector, and such will include both standards and incentives. She emphasized that the EU will lead the way but the goal cannot be reached without working together internationally. The EU's external actions will include numerous measures addressing various sectors to be discussed with different partners, and all that with due consideration of the European Green Deal.

One of the participants mentioned that, according to the text of the EU Methane Strategy, one of the biggest emitters is the agricultural sector, while the energy sector's contribution is quite modest. Yet, it is exactly the energy sector that is the most blamed by NGOs and some MEPs in the European Parliament. The energy sector, however, in fact is the most equipped to verify and control methane emissions, something which other sectors cannot boast. At the same time, for some reason all "bad image" goes to the energy sector.

C. Sikow-Magny replied that the Methane Strategy is designed to cover all sectors. There are many low-hanging fruits and these can mainly be found in the energy sector, so in the short-term perspective the actions in this sector can be implemented rapidly and using currently available technologies. All of the sectors, however, will remain in focus.

Item 2. Presentation "Methane emissions from natural gas and LNG imports an increasingly urgent issue for the future of gas in Europe" by Jonathan Stern

J. Stern started his presentation with a statement that calculating ME across the whole value chain is very complicated both methodologically and statistically, and this issue still attracts a lot of debate.

He then presented certain ideas from the recently published paper Methane Emissions from Natural Gas and LNG Imports: an increasingly urgent issue for the future of gas in Europe. He explained his choice of using Methane Tracker data instead of UNFCCC data, as the latter give different results and they do not provide comprehensive country treatment for all major suppliers of natural gas and LNG to the EU.

He reminded that the main focus of the EU Methane Strategy are imports from fossil fuels, in particular pipeline gas and LNG, and explained that emissions from imports are very different from national emissions from oil and gas. He also mentioned that very few people speak of coal, while the data related to this fuel is very complicated.

He referred to the fact that all countries discussed in the paper have very different import emissions profiles depending on the source of production and the route to the EU border. For example, if data from different fields in the Russian Federation are compared, it is seen that have very different emissions levels. For example, emissions from the Nord Stream pipeline seem to be much lower compared to, for example, Yamal-Europe pipeline emissions, as gas comes from a different field. The same applies to Yamal LNG which also arrives to the EU. The complexity in this question is beyond a simple number for a given country, and it is therefore important to look at specific emissions through the whole export supply chain as well as to compare the LNG vs pipeline footprint even where gas comes from the same field.

He also raised the issue of using persuasion versus compulsion when it comes to the external measures that the EU might take in this direction. In his opinion, persuasion is likely to work better and faster, while compulsion will only lead to delays and unnecessary litigation, for example, in terms of WTO.

Item 3. Presentation Methane emissions reduction: what is being done by the global gas industry [an update] by Francisco de la Flor

Francisco de la Flor mentioned that GIE is doing its best to accommodate the topic of Methane Emissions. GIE is pushing at the United Nations level to tackle methane and coal emissions. The publication of the GIE report on the subject was a good starting point to gather stakeholders and start the cooperation among the different companies and associations. All the comments were taken on board for this publication, therefore it embodies a very complete form of information available.

Industry meetings are being held twice a year. This is the best way to ensure commitment on what needs to be delivered and ensured, such as: raising awareness; tackling fragmented initiatives; tackling issues regarding MRV-IV; etc. The GIE methane emissions group has 70 different initiatives, among them, 14 are completed and 45 are ongoing.

GIE shared its findings and raised awareness within the Energy Community in a dedicated workshop in which different representatives were present: specialists, UNEP and European Commission representatives. Francisco de la Flor mentioned that 2021 will be a very busy year and GIE will contribute as much as it can to the legislative process regarding methane emissions. GIE will strive for harmonized definitions, it will be working on a concrete document related to MRV and LDAR with Marcogaz and OGMP as well as working on venting and flaring issues. In the past 2 months, GIE worked actively with UNEP for the OGMP 2.0 to attract the midstreamers into it. Now, the majority of the signatories are midstreamers. All documents mentioned in the presentation are publicly available.

Francisco de la Flor's presentation is attached to the minutes of this meeting.

Item 4. Presentation "OGMP2.0 framework and its consequences for the EU and Russia" by Manfredi Caltagirone

Manfredi Caltagirone stated that, despite the reduction in emissions this year, the gap between the Paris Agreement and the commitment of countries remains wide. The difference between the current reduction targets and the one proposed by science to achieve the Paris Agreement are dramatically different. Actions need to be taken in the short term to buy extra-time for big emitters to start reducing their emissions. The fossil-fuel sector is not the one emitting the most, but it is the one where the reduction can be the most accentuated (due to the structure of the market, the technologies and finance available, etc).

The OGMP framework was launched in 2013 and covered 15% of Oil & Gas production and was mainly focused on the upstream sector. The new system under OGMP 2.0 covers upstream, midstream and downstream. M. Caltagirone added that UNEP is grateful for the support of GIE & Marcogaz on this matter. He also stated that the new framework concerns both operated and non-operated assets. It will be required of the companies who join the OGMP 2.0 to provide a methane emission target with a 2025 timeframe that UNEP will be able to check their performances against.

M. Caltagirone presented the 5 levels of emissions reporting which will be reported at the asset level. Companies have agreed to move from level 1 to level 5 (gold standards) in a certain timeframe: 3 years for operated assets and 5 years for non-operated assets. The gold standard requires the companies to reconcile a bottom-up measurement with a top-down approach to make sure that the full spectrum of emissions is verified. He was happy to present the great increase of the number of members: from 10 upstream companies to currently 62 oil & gas operators from across the entire value chain, mostly Europe based.

M. Caltagirone added that the OGMP framework will provide an observatory which will be challenging the reports from companies to ensure an independent observation. Methodologies and their transparency will also be a big focal point. M. Caltagirone stated that the OGMP framework will provide technical assistance to countries that intend to use the data that the observatory provides to take action on methane emissions. The idea is to create a common set of data that can be trusted and used to then act at different level (company, government, NGO level, etc.).

Following a question on obtain data of non-operated assets, M. Caltagirone mentioned that an idea would be to include it into the contractual agreement for OGMP. However, it will be mostly an issue

of dialogue between the company and government. So, no way to force it, but hopefully, through discussion, the data will be available.

Following a question regarding the timing, M. Caltagirone answered that the 5-years limit is the product of negotiation between the different actors. He reminded that the limit of 5 years is only applying to non-operated assets. Operated ones have only a 3-years margin. Regarding the transparency of data, Mr. Caltagirone precised that some upstream companies do not want to see the data going into the public domain.

Item 5. Presentation "What are the best new (and old) measurement techniques for methane emission reduction?" by Stéphanie Saunier

S. Saunier focused her intervention on measurement mechanisms. All methodologies rely on measurements, and a lot of work is put in developing new types of measurement technologies. The goal of those technologies is to identify super emitters, or allow for a more precise reporting. She presented the 2 different types of technologies: top-down (satellites) and bottom-up (on site monitoring devices). These 2 technologies are complementary as both are used for reporting efficiently. The top-down provides a good overview of the emissions of a site, but it doesn't provide the data one needs to go forward with mitigation while the bottom-up allow mitigation, however, it is harder to assess the emissions of a site.

Planes are more and more used to understand the total magnitude of the emissions on a given site at the time of measurement and are very useful for identifying large emitters. She then presented the satellites, which are used for 2 objectives : quantifying the emissions over a large base in a region and identifying the largest of the large emitters. The minimum level of detection by a satellite is about 250 kg/h, however, she added that there is still a lot below this threshold.

S. Saunier stated that the technologies available are like a toolbox: it is up to each company to determine which one corresponds the best to its objectives. She then underlined the difference between trying to quantify and trying to mitigate emissions. There is an opportunity and a challenge, she concluded, as a couple of sites represent the majority of the emissions and it is important to have the right tools to identify quickly the big emitters.

Item 6. Presentation "Methane emissions reporting in Russia and Gazprom" by Konstantin Romanov

Konstantin Romanov explained that the methane emissions issue is somewhat overregulated in Russia in the sense that there exist stringent standards that govern the permissions procedure, the emissions limits, as well as measurement and reporting. The standards are set by numerous entities including Ministry of Energy and Ministry of Natural Resources and Environment. Besides, PJSC Gazprom has adopted elaborated corporate guidelines on measuring and assessment of methane emissions which it is ready to share.

He mentioned that methane emissions detection measures are provided for all facilities and that PJSC Gazprom has a special independent inspection company that ensures additional verification of all data received.

He told the participants that according to the results of the independent satellite verification carried out by Kayrros, detected leaks are within the Gazprom-reported emissions of 0.29 % of gas moving through the pipeline. The company considers elaborating its own verification system and also has a subsidiary focusing on space technologies including the development of special equipment for GHG monitoring, in particular, methane emissions. This includes SMOTR-B, the first satellite out of six, to be launched in 2024. He explained that, at the same time, satellites are often unable to detect

emissions because of weather conditions, so to a certain extent space monitoring is not optimal, e.g. for calculating fugitive emissions. Therefore, while the company works to improve this technology, it is aware that such should not be regarded as a universal solution for all monitoring cases.

He also mentioned joint measurement campaigns carried out in collaboration with partners from Germany, the USA, France, and the Netherlands. He also expressed regrets that no such campaign has been launched since 2014, supposedly due to the sanctions. At the same time, he reiterated the company's readiness to organize and support such campaigns in the future. Speaking of international cooperation, he also said that all parties should be included in the process, and no players like US majors and LNG allies should be left out. Preferably, the relevant processes should be done in a "neutral" area.

He warned against manipulating figures and suggested that all parties use one common metrics. He also said that it is important to make correct comparison when discussing different natural gas suppliers and avoid using figures that provide wrong assumptions. Ideally, an expert mechanism or an observatory should be developed that would involve all related parties in this process. He said that the company is ready to report according to OGMP 2.0, however, there should be reporting templates also covering the midstream and other parts of the value chain. Discussion is needed to support the development of various templates.

The main idea, according to K. Romanov, is to stay more open to different approaches, as different countries elaborate their own methodology based on existing regulations related to GHG emissions. It is also important to use different verification schemes. For example, when carrying out the revision, KPMG is not only doing so from the accounting standpoint but also makes the revision of the equipment certification which demonstrates how measurements were made.

One of the participants asked whether, taking in account weather conditions in winter, any measurements are made in summer in order to identify leaks. There was also a question whether snow prevents satellites from verifying methane emissions in the Russian upstream sector.

K. Romanov replied that the use of the Copernicus system makes it difficult sometimes to understand the spectre of colours and therefore special interpretation is required, for which Kayrros made its case. At this moment, Gazprom is elaborating its own methodology for space photos interpretation and it uses Kayrros existing system to understand how it works in order to make own assessments. Along with the plan to launch an own satellite in 2024, it also searches for better technologies than are available now. He also said that, indeed, snow can be the reason but not the only one. The results also depend on weather, landscape, etc., so it is difficult sometimes to identify the correct source of emissions, especially knowing that they can be coming from a natural source, not necessarily anthropogenic. Therefore, there is always room for technology improvement.

One of the participants agreed with that assessment and added that one of the elements that is largely underestimated is the integration of data from different sources, as satellite data should be used in conjunction with other measurements. He expressed an opinion that the issue of methodology will inevitably come back unless a scientific and peer-review approach is developed.

Discussion:

Following a question regarding the Gazprom proposal, K. Romanov explained that Gazprom's main idea, which they communicated to the European Commission, was that there should be more openness to more approaches as different countries are elaborating their own methodology according to existing regulation on GHG emissions.

Following a question about how Gazprom was dealing with the problem of snow covering for detecting methane emissions, K. Romanov answered that snow is a problem only during winter months and that Gazprom is developing its own methodology for space photos interpretation and will have its own satellite dedicated to this task around 2024. M. Caltagirone stated that UNEP is managing a series of science studies which are working to quantify methane emissions in different jurisdiction and would be very happy to work with Gazprom on this. K. Romanov welcomed M. Caltagirone's proposal and invited him to participate to a special meeting with the Russian academy of science which will be discussing methane issues.

Following a question on the accuracy of measurement and its impact if used in legal matters, J. Stern answered that the accuracy of measurement is being addressed in different parts of the value chain. The problem consists of, and the observatory could help with this, having uniformity of reporting and uniformity of interpretation as it is important to compare interpretations with the same measurement.

F. De la Flor added that there are two different points: firstly, the companies and association are addressing the topic using their own methodology and secondly, they can concentrate together to come up with a common methodology and common understanding which is extremely important to achieve.

Mr. Caltagirone followed saying that the methane emissions observatory can be the safe space where different stakeholders can have this discussion and where those issues can be transparently discussed and solved.

One participant mentioned that a general conclusion could be drawn that there is a general appreciation that the methane supply index is a good idea and that the methane emissions observatory is a good place to discuss.

Messrs De la Flor and Stern answered that these are challenging topics and that, even though they are supportive of national methane supply indices, these should not be seen as the same as methane emissions from specific export supply chains to the EU. Measurement of emissions from export supply chains are likely to be easier to agree with exporting countries on a much shorter timescale than national methane supply indices. Which would be not only more complex, but also require agreement between more companies in the exporting country, and agreement on MRV methodologies among a very large number of governments.

Wrap-up by the Co-Chairs:

The Co-Chairs closed the meeting and wished all the participants good health and happy New Year.