

SUSTAINABLE ENERGY WEEK 2023

BUILDING RESILIENT ENERGY SYSTEMS

11-15 SEPTEMBER 2023 | PALAIS DES NATIONS | GENEVA



Agenda Item 9 – [32nd Session of the Committee of Sustainable Energy](#)

Future work of the Committee on Sustainable Energy

15 September 2023, 10h30 – 11h30 CEST (Geneva time)

Objective: (1) Present to the Committee of Sustainable Energy the current situation of global methane emissions, review the existing agreements and initiatives targeting such emissions and evaluate their impact, and explore opportunities and challenges of the new methane detection and monitoring technologies and methods. (2) Highlight and explain the difficulty of addressing the problem of ventilation air methane, review available solutions, and present the Group's current work on that matter.

Context: Methane is a powerful greenhouse gas with a global warming potential with an average of approximately 28 times that of CO₂ on a 100-year time horizon. However, since methane has a short residency time in the upper atmosphere, that ratio grows to approximately 86 times the potency of CO₂ when measured over a 20-year time horizon.

About 60% of global methane emissions are due to human activities. The main sources of anthropogenic methane emissions are oil and gas industries, agriculture, landfills, wastewater treatment, and emissions from coal mines.

Methane is the primary component of natural gas, with some emitted to the atmosphere during its production, processing, storage, transmission, distribution, and use. Coal is another important source of methane emissions. Coal mining related activities (extraction, crushing, transportation, etc.) release some of the methane trapped around and within the rock. Methane is emitted from active underground and surface mines, as well as from abandoned mines and undeveloped coal seams.

Over the years the governments, as well as the relevant energy-related industries have undertaken a large number of initiatives aiming to better identify sources of methane emissions, more accurately measure the latter, and to effectively reduce them. However, as the issue is very difficult to tackle, also because it is multidimensional and highly politicized along various axes whether domestically or internationally, the up-to-date results of all those undertakings have not been satisfactory, and therefore the need for an effective action on methane is nowadays more visible than ever.

Satellite technologies offer new opportunities in monitoring the emissions. At the same time, their application, if it is to render accurate, reliable, and comparable results requires careful analysis based on a common methodology, as well as corroboration. In addition, technologies need policies that require and regulate their use, and which in turn, need to be enforced. Therefore, without a true forward-looking and long-term commitment of policymakers to effectively address the problem, real progress in methane emissions abatement efforts will not be made.

Opening the session and introduction to the debate:

Introduction to the session, by Raymond Pilcher, Chair of the Group of Experts on Coal Mine Methane and Just Transition

Roundtable: Current state of global efforts to monitor and reduce methane emissions, and opportunities for improvement offered by modern technologies

Moderator:

Raymond Pilcher, Chair of the Group of Experts on Coal Mine Methane and Just Transition

Panellists (in alphabetical order):

Antoine Benoit, Kayrros

Tomas Bredariol, International Energy Agency (IEA) (Video)

Malgorzata Kasprzak, International Methane Emissions Observatory (IMEO)

Richard Mattus, RM Consulting

Denise Mulholland, Global Methane Initiative (GMI) Secretariat

Issues to be addressed:

- Assessment of up-to-date results of the existing methane emissions reduction initiatives;
 - Brief review of the existing initiatives targeting methane emissions undertaken by the governments and/or the relevant energy-related industries;
 - Where are we, vs. where we planned to be, vs. where we need to be?
- To what extent can new technologies help with by providing adequate monitoring and cost-effective modes of effective abatement of methane emissions from energy-related industries?
 - What is the future of satellite measurements?
 - Can a common methodology for analysing satellite-obtained results be developed in the near term?
 - Is progress being made to develop a methodology that can be applied across data acquisition platforms, e.g., satellite, airborne, ground based, etc.?
 - What are the consequences that more accurate methane emissions measures delivered by satellites might have on relevant policies?
 - How can Artificial Intelligence help with:
 - improving practices of mapping and measuring methane emissions, and
 - analysing emission data?
- What policies on methane do we need to effectively tackle the problem?
 - What is the interface between technology and policy?
 - Do new technologies help with development of new, more effective policies, or do they only add to the complexity (also political) of the problem?
 - Does politization of the problem prevent the world from making real and measurable progress?
 - How to reconcile the positions of the developing and the developed countries?
 - How to elevate the political importance of the methane problem domestically?
 - What is the role of civil society in addressing the issue of methane emissions?
- What can UNECE do to help member States?
 - Awareness raising and promoting technologies is not enough;
 - Need for effective policies and their enforcement.
- Ventilation Air Methane
 - What is VAM and why is it important when considering methane emissions from the coal sector?
 - Why is VAM processing difficult?
 - What policy changes could increase interest and investment in reduction of VAM emissions?
- Global Methane Forum 2024
 - An opportunity to discuss policy and technology related to methane across all sectors

Discussion & Next steps

Interventions by member States and the wider multi-stakeholder community