UNECE's Air Convention Gothenburg Protocol Revision

May 2024

Working Group on Strategies and Review, 62nd session

Policy Options for Addressing Methane

Presented by the Chairs of the EB and WGSR

Background

- Reducing transboundary ozone in the UNECE region is an **objective of the Protocol** (Article 2.1).
- Scientific evidence from the 2016 Scientific Assessment and its Policy Response (2017/3), and results from the Global Methane Assessment (UNEP 2021) establishes a strong link between methane emissions and ground-level ozone formation and its impact on health and the environment.

• GPG Review:

- Para 90 (i) "Global CH₄ reduction (in addition to CH₄ and NO_x/VOC control in the ECE region) will be needed to reduce ground level O₃ in the ECE region." Reaffirmed in EB Decision 2023/5
- Para 90(h) "additional action is needed in the agricultural sector (NH $_3$ and CH $_4$)...gas flaring (BC and CH $_4$) and landfills (CH $_4$)..."
- Para 91(f) "Continue scientific work and policy discussions on CH₄ and consider potential action to achieve methane reductions to reduce O₃"

Addressing methane as an ozone precursor

- Methane as an ozone precursor is currently addressed under the Convention
 - TFHTAP: hemispheric transport of ozone
 - TFTEI: mitigation technologies
 - TFRN: co-mitigation of methane and ammonia
 - TFIAM/CIAM: emission scenarios and optimization
- Create synergies and avoid duplication
- See "Background documents to support the plan for the revision of the GP, as amended in 2012" (WGSR62 inf doc, May 2024)

Continued discussions on Methane

- Scientific evidence reiterated in TFIAM and TFHTAP presentations at this meeting:
 - To tackle tropospheric ozone increases, reducing CH₄ emissions inside and outside the UNECE region are necessary
 - HTAP and Policy Brief para 23 / Fig. 10: ozone reduction potential (CLE vs LOW until 2050) is 1/3 by UNECE NO_x/NMVOC, 1/3 for non-UNECE NO_x/NMVOC, and 1/3 global methane
 - Therefore, we as CLRTAP community have to continue discussion on potential ways how to address methane as an ozone precursor, possibly under the Air Convention

Key Considerations

- Timing
 - Short-, medium-, long-term actions (selected and/or combined)
- Geographical Scale and Ambition
 - Larger scale / lower ambition vs. narrow geographical scope / higher ambition
 - Potential co-benefits for addressing NH₃ emissions from agriculture
 - International cooperation and coordination with other international initiatives
 - Voluntary commitment approach (e.g. BACA)
- Outreach to complement Convention work with actions in non-UNECE region, including coordination with climate/agriculture/energy institutions
- **Emissions reporting** synergies with UNFCCC & Arctic Council Expert Group on Black Carbon and Methane

Menu of options for addressing methane (Para 77 of 2022/5, Technical information for the review of the GP)

- (a) Maintaining current activities and taking no additional action (status quo)
- (b) Supporting the Global Methane Pledge
- (c) Adopting CH₄ <u>national emission reduction targets</u> or optimized national/regional <u>reduction commitments</u>
- (d) CH₄-specific <u>emission limit values</u> for specific activities
- (e) Compiling, reviewing and improving CH₄ emission information
- (f) Setting minimum requirements for monitoring and reporting data
- (g) Developing <u>guidance documents</u> and/or a report on recommendations for CH₄ emission reduction measures or best practices

Options to address the conclusions of the review to the GP, EB Decision 2023/2

- Para 15(c) Expanding the scope of the Protocol to include requirements on other ozone precursors, in particular CH₄ a number of options are available to address CH₄ in a revision of the amended GP.
 - (i) Adoption of national emission reduction targets/optimized national/regional CH₄ reduction commitments, which could be binding or non-binding, collective or individual.
 - New commitments-based option
 - Supporting/overlapping with the GMP, collective CH4 reduction goals, specific sector CH4 targets

Options to address the conclusions of the review to the GP, EB Decision 2023/2

- (ii) A new technical annex on CH₄ (and/or an integrated annex for agricultural emissions) could potentially be addressed by a separate EB Decision and thus, ratified separately.
 - New commitments-based option unless focused on guidance documents only
 - CH4 ELVs for certain activities could be included in the annex
 - Could include different requirements by sector, a new annex including ELVs, BATs and guidance documents on best practices, sector-focused approaches such as guidance for monitoring and reporting of data for the oil and gas sector could be considered

Options to address the conclusions of the review to the GP, EB Decision 2023/2

- (iii) Compiling, reviewing and improving CH₄ emissions information
 - This is an information-based option that requires coordination with other bodies.
 - Need to request EMEP/WGE/TFTEI/TFRN to extend work/add to the workplan
- (iv) Quantifying the benefits of current global efforts to reduce CH₄ emission on ozone concentrations
 - This is an information-based option to improve understanding of the air quality, human health and ecosystems benefits of reducing CH4 as an ozone precursor beyond what has already been included in the Global Methane Assessment (UNEP, 2022).

Capacity Building

- EB Decision 2023/5 "Decides to take action to enhance capacity-building, awareness raising and cooperation within and outside of the ECE region considering the efficient use of resources..."
- This could include a voluntary approach (e.g., BACA) or other capacity-building efforts to reduce transboundary ozone, including methane.
- Approach 4 in 2023/2 includes additional details on the capacity-building, awareness raising and cooperation approach.
- Further discussion is needed with TFICAP.

Next Steps

- WGSR Recommendation to address Methane per EB Decision 2023/5
 - First / minimum step: adopt the timing to address methane in the plan for revision
- Informal meeting in Leuven, Belgium 21-24 October 2024
 - Annotated agenda will be sent out by the Chairs this summer
 - Main topics: Gothenburg Protocol revision, including new flexibilities and non-party inclusion, how to address methane, ammonia, and black carbon emissions, emission reduction commitments, technical annexes, target-setting, and integrated approaches among climate, energy, biodiversity and air policies, WGSR recommendations follow-up
 - Secretariat emails of 9 February & 25 April