Methane Management in the Extractive Industries

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Reducing methane emissions would slow global temperature rises.

BUT

Current information is largely based on estimates, and often uneven and incomplete.

- Not all companies measure and report leaks.
- Technology for detecting and quantifying methane emissions is available.
- Standard national/regional methods for reporting them exist.
- Implementation is uneven, so hard to compare data.

THEREFORE

A clear need for common global approaches across each fossil energy chain and for enhanced dialogue and cooperation.
UNECE in consultation with IGU, WCA and WPC and other industry experts prepared a survey on methane monitoring.

Objective:
- Provide an initial overview of how methane emissions in extractive industries are monitored, measured, recorded, and reported across the extraction, processing and transport segments of the respective value chains.

Where we are?
- Questions prepared ✓
- Survey disseminated ✓
- Responses collected ✓
- Results analyzed ✓
Most fossil extractive industries (gas, oil, coal) monitor CH$_4$ and report results.

Primary purposes for monitoring are compliance and safety.

The nature of emissions are fugitive leaks and controlled releases (mainly for gas and oil industries) and accumulation of gas (coal).

Oil and gas exploration distinguishes CH$_4$ from other CH-gases. Other players do not distinguish.

Continuous monitoring is applied in all sectors, but especially in coal, plus monthly for coal and annually for oil and gas.

CH$_4$ emission standardization mandated by law more often for coal than for oil and gas.
Methane management attracting attention
Information regarding methane emissions has improved
Much effort and resources are going into remediation
A range of practices exist

BUT

The essential conclusions remain unchanged:
- Data collection is not rigorous nor comprehensive; estimates not verified
- Procedures for MRV and remediation are variable
- Enormous opportunity for knowledge enhancement and remediation
Survey identified critical gaps in information on methane emissions.

Recommended that work on best practice guidelines and methods to manage and reduce methane emissions be continued in the 2018–2019 work plan.

Survey highlighted the need to update and refine data to reflect more accurately volumes of methane emissions.

Future work should be carried out in close collaboration with other international mechanisms, companies, organizations and associations.

UNECE invites all interested parties to join this effort.
Explores current practices and technologies along the value chain in key energy-related extractive industries.

Seeks to:
- Determine and promote best practices for measurement, reporting, and verification (MRV) of methane emissions in these industries.
- Identify and disseminate best practices to reduce methane emissions.

Four subject-specific pillars:
- Coal
- Downstream Oil (processing through distribution),
- Downstream Gas
- Upstream Oil and Gas (i.e. exploration and production)
### Next Steps

#### Extractive Industries

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<th>Upstream Oil and Gas</th>
<th>Downstream Oil</th>
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<td>BPG MRV</td>
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*Star icon indicates the next step.*
ENECE in cooperation with US EPA has begun implementing the project on *Methane Management in Extractive Industries*.

**Objective:**
- To increase capacity of the UNECE Member States for MRV and to reduce methane emissions in extractive industries.

**Where we are?**
- Project document prepared ✔
- Deliverables determined ✔
- Financing secured ✔
- Implementation started □

**Selected deliverables:**
- Assessment of methane emissions
- Development of *case studies* for MRV and reduction of methane emissions
- Identification of *best practices* for MRV and reduction of methane emissions
4 phases, each building on existing efforts:

- **1st**: identify scope and breadth of methane emissions:
  - Review existing data on sources of methane emissions;
  - Compile data related to methane emissions in UNECE member States;
  - Determine the largest-emitting sources of methane.

- **2nd**: review and assess current MRV systems (at facility, national, and international levels) and strategies, practices and/or technologies for MRV of methane emissions. Identify comprehensive best practices for MRV of methane emissions.

- **3rd**: Drawing from government and industry experience in addressing methane emissions, identify best practices for reducing methane emissions.

- **4th**: Disseminate best practices/case studies for (1) MRV and (2) reduction of methane emissions and capacity building workshops and seminars.
Thank you!