Tender for the procurement of consultancy services concerning:

Catalogue of Nordic Best Mitigation Practices to abate methane emissions

The Nordic Climate and Air Pollution Group (KoL) calls for tenders for the project "A Catalogue of Nordic initiatives to abate methane emissions".

The Climate and Air Pollution Group (KoL) is a working group under the auspices of the Nordic Council of Ministers and its work aims to contribute to Nordic goals of limiting serious climate change and of preventing air pollution from damaging the environment and human health.

Background

Short-lived Climate Forcers

Carbon dioxide (CO2) is the main forcer of anthropogenic global warming, but there is a growing recognition within the scientific and policy communities that efforts to address climate change should focus not only on substantially reducing carbon dioxide (CO2) emissions, but also on near-term actions to reduce climate-warming substances with much shorter atmospheric lifetimes. These are called short-lived climate forcers (SLCF) or short-lived climate pollutants (SLCP).

Reducing emissions of SLCP would slow the near-term rate of climate change. Scientists estimate that SLCFs account for 30 to 40 percent of the human-induced warming to date. Yet as SLCFs remain in the atmosphere for periods of only a few days to decades, their warming effect is shorter, and reducing their emissions would result in shorter term benefits. In addition to limiting climate impacts already underway, including important regional impacts such as glacial melting, SLCF reductions would reduce local air pollution and hence produce health related and other co-benefits.

Methane

Methane has an atmospheric lifetime of about 10 to 12 years. Human-induced methane emissions result primarily from emissions from wetlands, ruminant livestock, rice agriculture, biomass burning, oil and gas production and distribution, coal mining, and solid waste landfills. Reductions in methane emissions improve local air quality by reducing ground-level ozone, which harms agriculture and human health, and is itself an SLCF.

The Svalbard declaration on SLCF

At their meeting on Svalbard 26-27 March 2012 the Nordic Ministers for Environment discussed and agreed upon a common declaration on cooperation regarding mitigation of Nordic and global emissions of SLCF, the Svalbard declaration.

As a follow up to the Svalbard declaration, the Nordic Climate and Air Pollution group (KoL) arranged a Nordic workshop on SLCFs in June 2012. The output from the workshop was a report with policy recommendations for future initiatives to support Nordic and global efforts to reduce Short-lived Climate Forcers. Under the auspices of the Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants (CCAC), initiatives to identify possible measures to abate emissions of methane are underway.

Project Aim, Scope and Description

Aim of the Project

To present an information catalogue describing methane-emission abatement measures implemented in the Nordic countries and their costs.

Aim with the catalogue

The purpose of the catalogue is to disseminate information on effective methane reducing measures that can contribute to the further implementation of emission abatement measures by local authorities and businesses in the Nordic countries and by neighbouring countries.

Contribute to development of Short Lived Climate Pollutants policies and strategies in the Nordic countries and to development of sectoral networks on methane emission abatements.

The catalogue shall also provide good support to the Climate and Clean Air Coalition (CCAC) initiatives to abate emissions of methane.

Scope of work

To describe the technical measures implemented in the Nordic countries to reduce emissions of methane and their costs. Approximately 60 pages, dependent on the amount of measures that qualify as best management practices (good examples) of methane emissions in the Nordic countries. Approx. 2-3 pages per practice.

Proposed structure of the catalogue

1. Brief introduction on the purpose of the catalogue

 Introductory text concerning the climate change reasons for methane reduction and other environmental and health benefits. Sectors and sources of methane emissions in the Nordic countries.
The main part of the catalogue, with good examples of best mitigation practices. This part is proposed to have a sectoral subdivision. The focus should be on "good available technology" and measures implemented in the Nordic countries.

- the sector of interest is first described in more detail about the amount of emissions and how the emissions are generated.

- every measure is described in 2-3 pages.

It will be a Nordic catalogue, not country specific.

What should be presented/Description of mitigation practices

- an overview of the abatement measure,
- technical description of the action (preferably drawings)
- what is actually reducing the emissions,
- the yearly amount of reduction, initially to end of lifetime
- the lifetime of the reduction measure,
- how the calculations were made,
- what other environmental and social benefits obtained,
- potential negative consequences for society,
- implementation barriers/difficulties,
- problems that may arise,
- knowledge gaps,
- investment costs and operating costs,
- cost effectiveness per reduced ton and CO2-equivalent (calculated for both GWP100 and GWP20).
- naming specific locations of the practice and the actors who performed it.

Inspiration for the description of best mitigation practices might be found on webbsites such as: The Global Methane Initiative <u>http://www.globalmethane.org/</u>

US EPAs Global Methane Initiative programs <u>http://www.epa.gov/globalmethane/index.htm</u> Agriculture and Agrifood Canada <u>http://www4.agr.gc.ca/AAFC-AAC/display-</u> afficher.do?id=1305058576718&lang=eng

<u>amcner.do/id=1305058576718&iang=eng</u>

Australian farming initiative <u>http://www.daff.gov.au/climatechange/australias-farming-future</u> Goda exempel från lokala klimatinvesteringsprogram i Sverige

http://www.naturvardsverket.se/Miljoarbete-i-samhallet/Miljoarbete-i-Sverige/Uppdelat-efteromrade/Klimat/Goda-exempel-LIP-och-KLIMP/.

Reporting conditions

The final report is planned to be published by the Nordic Council of Ministers, subject to the decision by the Climate and Air Pollution Group (KOL). KOL will later decide and take the costs of publishing. The report shall be written in English, with a summary in a Scandinavian language and follow the format of the Nordic Council of Ministers' guidelines for publishing reports. For more detailed technical information, see the Guide for publication: <u>http://www.norden.org/da/publikationer/produktion</u> The KOL coordinator will guide and assist concerning the correct reporting format.

At the start of the project the consultant shall prepare a short, popular summary of the project in a Scandinavian language and in English which will be published on KoL's website. When the project is completed the consultant shall prepare a short, popular text in a Scandinavian language and in English about the project results for possible publication on the website of KoL. The text will also be used as a draft for a press release.

Timeline

The project will be launched in December 2013-January 2014 and finished by Augusti-September 2014.

An interim report shall be delivered to KoL in the end of February 2014. The interim report shall give an overview of the consultant's planned structure and show examples of presentations of best mitigation practices for each relevant sector.

A preliminary draft report shall be delivered by the end of July 2014. The draft report will be commented by the KoL-group before finalized. The final report should be ready for publication by September 30, 2014.

Target groups

- Nordic countries experts and representatives in international fora, such as the Climate and Clean Air Coalition, the Convention on Long-range Transboundary Air Pollution and the Arctic Council.
- Operators and trade associations in the Nordic countries accounting for emissions of methane, e.g. municipalities, associations of local authorities, farmers, farmers associations, oil companies, agricultural authorities.

Tenders information

Tender deadline

The deadline for the tenders is **28. November 2013** (at 24.00). All the needed documents have to be delivered by this time. Any material that has arrived after the deadline shall not be taken into consideration. Tenders for parts of the scope of this delivery only, will not be accepted.

The Tender shall be valid for a minimum of 90 days as from the Tender due date. There will not be an opportunity to submit alternative Tenders. Received Tenders will not be returned.

Procurement budget

The budget for the project mission is a maximum of **400 000 DKK**. Any VAT is paid by the Consultant. The budget shall cover all expenses for carrying out the project as well as all related travel expenses.

The costs involved in preparing, submitting and following up the Tender and the procurement process will not be reimbursed.

Tender format

The Tender with all its documentation shall be sent electronically to angra@mst.dk .

The e-mail shall be titled: "Methane Catalogue" followed by a short name of the Supplier.

The tender shall describe how the mission is planned to be carried out with methods, contacts and networks that are intended to be used. Scheduled time and costs for experts offered and other

expenses for the commission shall be included. Proven expert of knowledge (with CVs), previous experience of similar missions and qualifications in communication should be attached.

All documents shall be sent as **PDFs**. The project description *shall* also be sent as **word.doc-file**. The Tender proposal (PDF) must be dated and signed (scanned signature) by a person of authority and must clearly state:

- The name of the company

- The address
- The organization number/VAT-number

- The contact person with e-mail address and telephone number

- Any reservations that may apply and it must clearly state to which part of the proposal the reservations apply

- The Audit of the organisation
- Contacts

Administrative project implementation

During the mission, the KOL group will form an advisory group for the consultant, consisting of representatives of KOL and other national experts.

Evaluation

When evaluating the tenders, the following aspects will be taken into consideration:

- Design and plan of work and choice of methods
- Nordic and international contacts and networks that will be used in the project
- General competence and qualifications of project workers.
- Previous experience in collecting and presenting emission abatement measures of the project workers.
- Timeframe
- Scheduled time and costs, salary per hour and other expenses

Questions can be directed to Reino Abrahansson <u>reino.abrahamsson@naturvardsverket.se</u> or Anna Gran <u>angra@mst.dk</u> .

The Nordic Council of Ministers' Working Group for Climate and Air Pollution (KoL) is responsible for the project. The project is funded by the Nordic Council of Ministers. The Climate and Air Pollution Working Group will select contractors based on the group members' opinions.

Attachment

Possible sources and types of measures to abate methane emissions

Landfills: Methane recovery and combustion (i.e., power generation, industrial uses, flaring). Ex. collect CH₄ generated by waste decomposition, use for electricity, industry, communities, vehicles. Flare.

Gas/Oil Systems: Use of low-bleed equipment, and better management practices. Ex. – reduce leaks and improve practices at all stages of system, eliminate venting. Collect methane and use for power and heat, industrial uses, etc). Flare.

Manure management: Methane collection from anaerobic digestors and combustion (power, flaring). Ex. collect CH4 generated in large dairy/swine lagoons, use on-farm, generate electricity. Flare. Wastewater Treatment: Methane collection from anaerobic digestors and combustion (power, flaring) Ruminant Livestock: Improved production efficiency through better nutrition and management. Ex. improve diet and nutrition, improve overall animal health, increased product (milk, meat, work) from animals, lower emissions per unit product.