**PAME II-2018: Agenda 6.9(c)**

**Project Proposal Title: Black carbon and methane mitigation measures for shipping in the Arctic**

**Submitted by Iceland (draft version 4 Sep 2018)**

# Project Title

**Black carbon and methane mitigation measures for shipping in the Arctic.**

# Project Background

A great majority of engines used for vessel propulsion are driven by fossil diesel oil. Smaller vessels and smaller engines are generally powered by Marine Diesel Oil (MDO). For larger engines, Heavy Fuel Oil (HFO) is the fossil diesel used as it has greater viscosity than the former. HFO is less refined and cheaper than MDO and is therefore the favoured choice among owners of larger vessels. The combustion of any type of fossil diesel creates numerous exhaust gases which are harmful to the environment and human health.

To date, PAME has undertaken many projects that relate to HFO use and carriage in the Arctic. While there are many possible mitigation solutions, including limiting the use of HFO, it is worthwhile to study the available mitigation measures aimed at mitigating the risks posed by the use of heavy fuel oil (HFO) in Arctic waters.

In support of this project, reference is made to:

* The Summary of Progress and Recommendations Report submitted by the Expert Group on Black Carbon and Methane (EGBCM) to the Fairbanks Ministerial meeting in Fairbanks 2017.
* Fairbanks Ministerial declaration, (paragraph 24) i.e. “*Adopt the first Pan-Arctic report on collective progress to reduce black carbon and methane emissions by the Arctic States and numerous Observer States and its recommendations……”*

The 2017 Summary of Progress and Recommendations Report by the EGBCM identified emission abatement technologies as one of the possible ways of achieving the goal of reducing emissions in the Arctic[[1]](#footnote-1). The expert group also concluded that Artic shipping currently accounts for about 5 percent of black carbon emissions within the Arctic and that, absent emission controls, shipping emissions within the Arctic could double by 2030 under some projections of Arctic vessel traffic.[[2]](#footnote-2)

Finally, full account and synergies will be ensured within the IMO on this topic.

# Key Objective

To collect information on mitigation measures with the goal of identifying mitigation measures that are easily obtainable and can be adapted to each country’s specific circumstances, as relevant.

# Scope

The project falls under AMSA recommendation II(H) which states: *“That the Arctic states decide to support the development of improved practices and innovative technologies for ships in port and at sea to help reduce current and future emissions of greenhouse gases (GHGs), Nitrogen Oxides (NOx) Sulfur Oxides (SOx) and Particulate Matter (PM) taking into account the relevant IMO regulations."*

The project will seek to gather information from all available sources, including governmental authorities, the maritime industry and indigenous and local communities throughout the Arctic.

# Main Components and Implementation

This project will require a nomination of an expert from each of the member states, permanent participants and observers of the Arctic Council. A workshop is scheduled for September 2019, back-to-back with PAME-II 2019.

***Inclusion/involvement/contribution by Permanent Participants***

All Permanent Participants will be invited to volunteer information and contribute to the final product.

***The role of Traditional and Local Knowledge (TLK)***

Any local research, data or knowledge will be valuable to the final outcome, as we are looking to collect a varied and extensive overview, as well as making sure that the suggested mitigation measures can be adapted to each country’s specific circumstances.

***Timeline and Major Milestones***

* February 2019 – PAME-I 2019 approves project and confirms project leads for inclusion into the 2019-2021 Work Plan.
* May 2019 – September 2019 – Undertake information gathering from publicly available sources and Arctic States.
* September 2019 – Half or whole day workshop, back-to-back with PAME-II 2019.
* September 2019-February 2020 – Continue information gathering and compilation.
* February 2020 – Provide update to PAME-I 2020 on project status, including an

outline of the report and a list of information sources.

* February 2020 – September 2020 – Continue information gathering, compile and

synthesize information received by 1 June and begin drafting report.

* September 2020 – Submit a draft report to PAME-II 2020 and invite review and

comment by 15 November 2020.

* November 2020 – February 2021 – Revise draft report in light of comments

received.

* February 2021 –Final review by PAME-I 2021.
* March 2021 – Present any revisions to SAOs.
* March-May 2021 – Finalize report for Ministerial.

# Indicative Budget

Consistent with the overall Arctic Council approach, the development of this project will be financed through voluntary contributions and in-kind support from member governments. Financial contributions may be sought from other sources as well, such as the Nordic Council of Ministers.

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| **Item/activity** | **Budget (USD/in-kind)**  |
| Project management, coordination, consultation and outreach | 50.000 |
| External expert(s)  | 15.000 |
| Workshop | 30.000 |
| Editing, final layout and printing  | 10.000 |
| **Estimated Total:** | **105.000** |

# Main outcomes

The intended outcome of the work will serve as shipping-specific input from PAME on mitigation measures for shipping in the Arctic, which may contribute to the ongoing work within the Expert Group on Black Carbon and Methane.

# Project Team Structure/Lead Countries

* Leads: Iceland (Jon Bernodusson, Icelandic Transport Authority; Anna Margret Bjornsdottir, Icelandic Transport Authority); Others?
* Each Arctic Council member government and Permanent Participants’ organization to appoint a project team member.
* Collaboration, inputs and synergies will be important, in particular with the EGBCM, IMO and the industry, as relevant.
* The PAME Secretariat will provide administrative and project assistance.
* Other Arctic Council working groups will be consulted accordingly.

# Action Requested by PAME II-2018:

* All comments and any other input into this draft project proposal are welcomed prior to, or at, the PAME meeting Oct 1-4 in Vladivostok.
* Indications and/or confirmation of co-leads for this project.
* Agree to a revised draft project proposal and/or a timeline to finalize for inclusion into the PAME 2019-2021 Work Plan.
1. Expert Group on Black Carbon and Methane, *Summary of Progress and Recommendations*, pp. 17. (link to the full report is [here](https://oaarchive.arctic-council.org/bitstream/handle/11374/1936/EDOCS-4319-v1-ACMMUS10_FAIRBANKS_2017_EGBCM-report-complete-with-covers-and-colophon-letter-size.pdf?sequence=5&isAllowed=y) [↑](#footnote-ref-1)
2. Ibid. [↑](#footnote-ref-2)