

Expression of Interest for the Supply of Methanol as a Marine Bunker Fuel in the Port of Singapore

Frequently Asked Questions (FAQs)

General

1. What is the final outcome of the EOI?

The aim of the EOI is to understand: (1) the sources of methanol supply for the Port of Singapore, and b) the feasibility of developing an end-to-end bunkering supply solution for methanol procurement, storage, sale and delivery as a marine fuel in Singapore at commercial scale from 2025. MPA may consider the proposals received in response to this EOI to develop a licensing framework for methanol bunkering in the Port of Singapore. MPA may also consider collaborative opportunities to co-create with the industry essential aspects of the methanol bunkering ecosystem in Singapore.

2. What is the timeline between completion of EOI and implementation of methanol bunkering framework?

This EOI will close on 29th February 2024. MPA will carefully consider the proposals received to determine an appropriate timeline for the implementation of methanol bunkering framework, taking into account the feasibility and industry readiness to support the development of an end-to-end bunkering supply solution for methanol procurement, storage, sale and delivery as a marine fuel in Singapore at commercial scale from 2025.

3. Is the Port of Singapore ready to accept green methanol? What is the realistic timeline for the arrival of the first green methanol-fueled ship in the Port of Singapore?

The Port of Singapore is and continues to be ready to accept methanol irrespective of its colour. Methanol as a chemical is regularly handled by the Port of Singapore, and MPA has already facilitated a methanol bunkering operation in Singapore in 2023 that bunkered bio-methanol.

4. Is there any study done on the green methanol demand for the maritime sector in Singapore?

In MPA's initial industry consultation with companies who have placed orders for methanol-fuelled ships, methanol fuel demand is expected to exceed 1 MTPA before 2030. However, this is dependent on multiple factors such as supply of methanol fuelled ships, price and availability of methanol supply as well as prevailing regulatory requirements.

5. Is MPA intending to provide any grants?

MPA currently has policies in place to support the alternative fuel transition in the maritime industry, such as the Green Port and Green Ship programmes under the Maritime Singapore Green Initiative (MSGI).

6. Is the 1 MTPA methanol demand volume focused on green or combination of both green and grey methanol?

The demand sensing did not focus on a particular type of methanol. The aim was to provide a sensing of the indicative potential volume for the purposes of the EOI.

7. What is MPA's view of the post-2030 bunkering landscape?

MPA is of the view that the multi-fuel transition beyond 2030 would accelerate towards the IMO's goal of reaching net-zero GHG emissions by or around 2050. A number of companies have ordered methanol-capable and methanol-ready vessels, and the EOI aims to further the development of the methanol bunkering ecosystem in Singapore. MPA is also pushing ahead with our developments in the other net-zero fuel pathways (e.g. ammonia) as part of the wider decarbonisation effort for Maritime Singapore.

8. Could you clarify what "collaborative opportunities for MPA" in clause 2.2 would refer to?

If there are certain essential aspects of the methanol bunkering ecosystem that would benefit from co-developmental opportunities, MPA would consider exploring collaborative opportunities with industry partners.

9. Can the proposal be submitted by a consortium (group of companies)?

Yes, the EOI allows the creation of consortiums (the background information required in Annex A).

10. If a company provides lowest-carbon methanol, do they get more weightage or higher price support for the same?

The EOI is not a tender for the supply or sale of methanol to MPA or any other user in Singapore. The price/cost provided is meant to allow MPA to have a fuller picture of the market dynamics in Singapore.

Section 1

11. Does MPA only accept green methanol from biogenic sources, or green methanol from industrial sources shall also be considered? If different players propose methanol products with different carbon intensities (CIs), how does MPA rationalise it?

MPA currently does not restrict the source of the captured carbon, although it should be noted that industrial CO₂, if produced from fossil fuels, will still be eventually released to the atmosphere when burnt onboard a marine vessel without onboard carbon capture. At this juncture, MPA is evaluating the methanol products based on the overall well-to-wake carbon intensity. MPA reserves the right to stipulate different conditions for licence application

based on the proposals submitted as well as the needs of the maritime industry to meet the GHG emission targets set by IMO.

12. If two methanol products have different CIs, can blending be done such that the overall CI is below 90 gCO₂e / MJ (well-to-wake)?

MPA does not currently impose any restrictions on methanol blending, as long as the CI of the final product meets the requirements stated in the EOI.

13. Are there any certification institutes that MPA would like companies to use to determine its CI?

MPA is open to review the various certification methods which may be proposed by companies in the submission of the EOI proposals.

14. If conventional grade (grey methanol) can achieve a CI less than 90 gCO₂e / MJ (well-to-wake), would it be acceptable?

MPA will review all proposals submitted for the EOI, including the CI methodology employed.

15. Is there any preference on the import of methanol – via sea or land transport?

In principle, MPA has no preference for the mode of transport. MPA expects different modes of transport to be chosen in the proposals submitted, depending on the source location and the supply chain options.

16. What are the standard guidelines for CI of a product? Is there any restriction on vessel size carrying methanol? What is the expected quantity of methanol being looked at? Any guarantee on offtake of molecules?

The methanol well-to-wake carbon intensity upper limit is meant to ensure that the transition away from conventional fuels does not end up causing greater impact to the climate in terms of its well-to-wake emissions. This would mean that the choice of CO₂ feedstock will have an impact on the overall calculations. We understand that there are differing methodologies, so long as the proposal can clearly explain how the figures are derived, it would be sufficient for the purposes of this exercise.

Based on MPA's consultations, the expected demand for methanol would exceed 1 MTPA before 2030. While MPA is not in a position to guarantee demand, MPA would facilitate matching of the demand with supply where opportune.

Section 2

17. Will MPA be giving out new methanol bunkering licenses? Can MPA provide a ballpark figure of the number of licenses they are intending to issue? How long will license be valid for?

MPA will carefully consider the proposals received through this EOI to develop a methanol bunkering licensing framework that best supports the industry in the development of methanol

bunkering in the Port of Singapore. Details on the methanol bunkering licensing framework will be shared at later date and in advance of the implementation.

18. Will there be any restrictions on the sale of grey methanol, with a CI above 90 gCO₂e / MJ (well-to-wake)? Are there any guidelines on the licensing framework for grey methanol?

As stated in the EOI, MPA is of the view that the methanol provided as a marine bunker fuel should not incur a higher carbon intensity than that of conventional marine fuels. Specific restrictions and guidelines for the sale of methanol as a bunker fuel will be part of the regulatory framework that is under development.

19. Are there any standards for methanol bunkering?

To ensure the safe implementation of methanol bunkering in the Port of Singapore, MPA, in consultation with relevant experts, is developing a set of methanol bunkering standards. Participants are encouraged to submit their considerations for the standards under section 3.4.3 of the EOI.

20. Does the green methanol have to be supplied by MPA's licensed bunker supplier?

Yes, supply of bunkers to vessels in port must be provided by MPA's licensed bunker suppliers.

21. Would MPA prefer dedicated storage or supply through a distribution partner?

MPA has no preference on storage models. Through the EOI submissions, the industry may propose their preferred business models.

22. If grey methanol is not considered in the EOI, should this be considered for a company's 5-year business plan?

Companies are welcomed to provide information on different types of methanol if relevant and necessary for the purposes of the business plan. However, we urge companies to consider MPA's requirement for methanol marine fuel to have a CI of 90gCO₂e / MJ and below.

23. What are MPA's requirements for methanol bunker tankers?

Depending on the information in the proposals submitted for the EOI, in particular Section 3.4.3, MPA will develop the requirements for Port Limit Methanol Bunker Tanker Standards.

Section 3

24. What are some of the examples that will satisfy Section 3?

MPA recognises the challenge of physically transporting green molecules around the world, especially in the initial stages of this transition and in principle, MPA remains open to consider proposals for any chain-of-custody approaches.

As with all chain-of-custody models and as we have highlighted in clauses 3.5.1 and 3.5.3, the accounting strategy, methodology and means of Measurement, Reporting and Verification (MRV)

are crucial in these implementations. The systems would need to be trans-boundary by nature, and would need to be recognised and validated at a global level.

If any company is exploring potential trials to develop or validate such systems, MPA welcomes proposals covering Section 3 and may explore collaborative opportunities in the future.

25. For book and claim, if the green methanol does not pass through the Port of Singapore, how does MPA verify emission savings? As part of the phase in period, is MPA willing to consider carbon credits to offset grey methanol?

It would be preferred for the methanol molecules to pass through Singapore for verification. The onus and responsibility will be on the licensed bunker supplier to verify the authenticity of the low-/zero-emission methanol supplied to the Singapore market. MPA is currently studying the possibility of tapping on the compliance market for the purposes of offsets, and we currently do not rule out the voluntary market at this juncture.