

NextGEN Connect Call for Proposals

CHALLENGE SCENARIO

1. Globally, there are many decarbonisation projects underway. The IMO-Singapore NextGEN (where GEN stands for “Green and Efficient Navigation”) virtual ecosystem lists 154 projects, across 13 fuel types and involving over 500 stakeholders around the world¹. These projects take a wide variety of forms and cover different focus areas, from ships to fuel R&D to capacity building to infrastructure development.
2. Whilst it is encouraging to see the strong momentum in developing low and zero-emission solutions throughout the value chain, there is scope for greater synergy and consolidation by bringing stakeholders together to collaborate and exchange knowledge and experience, as part of the common objective of meeting the goals of the Initial IMO Strategy for the reduction of GHG emissions from ships (“Initial IMO GHG Strategy”). It is also often challenging to ascertain the levels of Greenhouse Gas (GHG) emissions reduction that will result from these projects.
3. The bulk of GHG emissions in the maritime sector are produced from international shipping². Whilst progress is being made in addressing those emissions, many countries, especially Small Island Developing States (SIDS) and Least Developed Countries (LDCs), may lack the economics of scale and the GHG reduction potential to warrant the substantial green investment needed. In addition, as CAPEX costs are substantial, the payback period may be long if they work independently. This is further complicated by the different marginal abatement cost structures in different national and regional contexts.
4. There are clear advantages in having greater access to information on how existing efforts contribute to GHG reduction at a global level and in relation to existing targets. Stakeholders need to know when and how much GHG can be reduced from existing efforts, and how to collaborate to support the global impetus to decarbonise the maritime sector.

ROUTE-BASED ACTION PLANS

5. Given the existing context, this Call for Proposals proposes to explore, as a pilot step, the development of “route-based action plans”, which could also become part of or linked to national action plans developed in line with resolution MEPC.327(75).
6. Route-based action plans are integrated action plans that bring together various projects and stakeholders with the overall objective of reducing GHG emissions along a specific maritime route. They involve two or more stakeholders, where parties concerned jointly develop and implement action items (R&D, technology demonstration and adoption,

¹ The database can be accessed at <https://nextgen.imo.org>.

² Under a voyage-based allocation of international shipping, 740 million tonnes of CO₂ emissions were produced in 2018, representing approximately 2% of global CO₂ emissions (Source: 4th IMO Greenhouse Gas Study 2020).

infrastructure development, capacity building, safety assessments, etc.) to reduce GHG emission along a specific maritime route (Point A to Point B).

7. Leveraging on its existing systems and capacity-building programmes and technology demonstration projects, IMO may facilitate collaborative workshops between countries and stakeholders to share best practices on maritime decarbonisation and monitor progress on GHG emissions reduction.

GEOGRAPHICAL SCOPE WITH FOCUS ON DEVELOPING COUNTRIES

8. Asia-Pacific, as a vibrant maritime region that is reliant on international shipping for trade and economic growth, is an ideal testbed for the preliminary development of route-based action plans. Such plans have the potential to support East Asian, Southeast Asian, and Pacific countries in identifying opportunities to prevent and reduce transport emissions, helping developing countries in the region to move closer towards a low-carbon future.

9. If this pilot project is effectively executed, countries and maritime stakeholders have the potential to benefit from experiences gained from such a pilot route-based action plan, so that such experience may benefit when similar route-based action plans are considered for defined small sample of other shipping routes situated along:

- a) Shipping routes (eg. Asia-Europe trade lane, Strait of Hormuz) where there is high potential for GHG emissions abatement; and
- b) Shipping routes in geographically remote areas or in States that are geographically distant from their markets, where there may be a need to enhance connectivity and shipping/port efficiency, along with scaling up emissions reduction efforts.

10. By adopting a targeted, collaborative and outcome-driven approach, route-based action plans may achieve greater GHG emissions reduction and reap larger economies of scale in technology deployment. They may also encourage first movers in maritime decarbonisation R&D whilst sharing the lessons learned. Such benefits and other implications can be assessed from this pilot project.

PROBLEM STATEMENT

Propose a robust methodology that at least two stakeholders in shipping (e.g. IMO Member States, shipowners, technology developers, classification societies, and NGOs) could use to develop, on a pilot basis, specific route-based action plans in the Asia Pacific region to reduce GHG emissions between specific points (i.e. Point A to B or more).

DESIRED OUTCOMES

Participants should produce a universal methodology for a route-based action plan.

The methodology should fulfil the following specifications:

- a. Lend itself for a comparative analysis for a variety of routes within the Asia Pacific region so that scalability can be assessed (e.g., busy routes vs. geographically remote areas)
- b. Flexible to increase the number of routes and possible applicability to other routes in the future
- c. Specifies clear actions to be undertaken to achieve GHG emissions reduction (be it in capacity-building or technology deployment), with an estimation of the likely number of man-hours needed
- d. Specifies how stakeholders can concretely identify and monitor GHG emissions reduction³
- e. Offers a substantive case-study that demonstrates how this methodology could apply to and be implemented on a specific maritime route
- f. Includes due consideration of digital and technological solutions as an appropriate tool for the reduction of GHG emissions⁴

Detailed evaluation criteria can be found at **Annex B**. These criteria are preliminary and may be subject to change and refinement at the organisers' discretion.

EXISTING SOLUTION

There is no known solution.

CALL FOR PROPOSALS

We welcome submissions from maritime administrations, IMO Member States, shipowners and shipping lines, fuel suppliers, technology developers, NGOs, classification societies, consultants, Institutes of Higher Learning, international research centres⁵ and other interested parties.

Joint submissions (from multiple stakeholders) are welcome and encouraged.

DUE DATE

The deadline for submission is Saturday 1 October 2022, 00 00 hrs GMT.

³ Bonus if the methodology is able to explicitly quantify the anticipated amount of GHG emissions reduced

⁴ An example includes common digital platforms that could facilitate systems integration and data exchange allow reduced vessel and vehicle idle times, which translates to reduced emissions within the supply chain

⁵ Global Centre for Maritime Decarbonisation, Maersk McKinney Moller Centre for Zero-Carbon Shipping, Lloyd's Register Maritime Decarbonisation Hub, Maritime Technology Cooperation Centres (MTCCs)

CONFIDENTIAL & EMBARGOED TILL RELEASE – NOT FOR CIRCULATION

To participate, please create an account for your organisation via the NextGEN Connect portal (nextgen.imo.org/challenge). You may submit your proposal and supporting documentation via the portal. You may scan the QR code below to access the portal.

ANNEX A – CRITERIA FOR EVALUATION

