



MARITIME AND PORT AUTHORITY OF SINGAPORE
SHIPPING CIRCULAR
NO. 12 OF 2019

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Applicable to: This circular should be brought to the attention to all Singapore ship owners, ship managers and the shipping community.

EXTENSION OF THE GREEN SHIP PROGRAMME UNDER THE MARITIME SINGAPORE GREEN INITIATIVE

This Circular serves to provide an update on the details of the Green Ship Programme (GSP) for Singapore-flagged ships. The GSP is one of the four programmes under the Maritime Singapore Green Initiative (MSGI)¹. The key principle of the GSP is to reward ship owners who voluntarily adopt solutions that enable ships to exceed environmental regulatory standards mandated by the International Maritime Organisation (IMO) at that point in time. The GSP commenced on 1 July 2011 and was valid until 30 June 2016. Due to positive feedback, the GSP was extended until 31 December 2019, and now it is further extended until 31 December 2024.

2 Under the extended GSP, with effect from 1 January 2020, MPA will provide incentives to Singapore-flagged ships which:

- i. Exceed IMO's MARPOL Annex VI Energy Efficiency Design Index (EEDI) requirements;
- ii. Adopt engine capable of using liquefied natural gas (LNG); and/or
- iii. Adopt engine capable of using alternate fuel with C_F (conversion factor between fuel consumption and CO₂ emission)² equivalent to or lower than LNG, henceforth referred to as "low-carbon fuels".

Annex A shows the incentives for Singapore-flagged ships that qualify for the extended GSP. Note that Singapore-flagged ships that adopt approved SO_x scrubber technology will no longer be qualified under the GSP as this criterion will not be going above and beyond existing IMO emission requirements.

¹ The MSGI seeks to reduce the environmental impact of shipping and related activities and to promote clean and green shipping. The MSGI comprises Green Ship Programme, Green Port Programme, Green Energy and Technology Programme and Green Awareness Programme.

² As defined in Resolution MEPC.308(73) Section 2.2.1.

Exceeding IMO's MARPOL Annex VI EEDI

3 A Singapore-flagged ship that exceeds the requirements of IMO's MARPOL Annex VI EEDI will enjoy a 50% reduction on the Initial Registration Fees (IRF) under both normal registration and Block Transfer Scheme (BTS) during the registration of the ship. It will also enjoy a 20% rebate on Annual Tonnage Tax (ATT) payable every year until the ship ceases to exceed the requirements of MARPOL Annex VI EEDI, based on the applicable EEDI phase for that particular ship type and size. Details of the EEDI-related criteria and applicable ship types can be found **Annex B**.

4 An existing ship which utilises energy efficient ship design that meet the requirements for the GSP can also take part in this programme, but will only enjoy the 20% rebate on ATT payable every year until the ship ceases to exceed the requirements of the applicable EEDI phase for that particular ship type and size. For registration anew scenarios, that is, those involving existing ships in the Singapore Registry, there is no 50% reduction on the registration anew fees for the new ship owner as this fee is not considered as IRF. However, the ship owner can still enjoy the 20% rebate on ATT if the ship qualifies under the GSP.

Use of LNG

5 A Singapore-flagged ship that uses LNG as its primary fuel will enjoy 75% reduction on the IRF and 50% rebate on the ATT.

Use of "Low-Carbon Fuels"

6 With effect from 1 January 2020, the GSP will also recognise Singapore-flagged ships that use fuels with C_F (conversion factor between fuel consumption and CO₂ emission) lower than LNG, or low-carbon fuels. Please refer to **Annex C** for the list of fuels and their corresponding C_F values. A Singapore-flagged ship that uses low-carbon fuels as its primary fuel will enjoy 50% reduction on the IRF and 20% rebate on the ATT. A Singapore-flagged ship which exceeds the requirements of MARPOL Annex VI EEDI and uses low-carbon fuels as its primary fuel will enjoy 75% reduction on the IRF and 50% rebate on the ATT.

Documentary Evidence

7 To qualify for the GSP under the EEDI criterion, the ship owner has to submit a copy of the International Energy Efficiency (IEE) Certificate as proof that the attained EEDI of the ship exceeds IMO's requirements on EEDI for that particular ship type and size at the time when the above financial incentives are to be applied. To qualify for the GSP relating to the use of LNG and low-carbon fuels on Singapore-flagged ships, please refer to the application form as shown in **Annex D**. Please submit this application form and supporting documents at the point of provisional registration.

8 If the documentary evidence (such as IEE Certificate or Cargo Ship Safety Construction Certificate) is not ready at the time of provisional registration, the ship owner

has to inform the Singapore Registry of Ships in writing at the point of provisional registration of the intention to participate in the GSP. The documentary evidence will then need to be submitted within 1 month of provisional registration. For existing ship owners who have made major modifications to make their ships green and would like to enjoy the 20% rebate on ATT, please provide the documentary evidence at least two months before the ATT due date.

There will be no pro-rated rebate if documentations are not submitted on time. Submissions can be made via email to marine@mpa.gov.sg.

9 Interested ship owners may approach one of our eight Recognised Organisations (ROs) for the issuance of the documentary evidence (such as IEE Certificate or Cargo Ship Safety Construction Certificate). Please refer to **Annex E** for the list of ROs.

10 Ships that qualify for the GSP will be given a “Green Letter of Recognition” issued by MPA. The “Green Letter of Recognition” will also be given to the company owning the qualifying ship.

11 This circular supersedes Shipping Circular 27 of 2015 and Shipping Circular 18 of 2016 on the GSP.

12 Any queries relating to this shipping circular should be directed to the Singapore Registry of Ships dedicated contact via email: marine@mpa.gov.sg and tel: (65) 6375 1932.

GOH CHUNG HUN
DIRECTOR OF MARINE
MARITIME AND PORT AUTHORITY OF SINGAPORE

Annex A – Extended Green Ship Programme incentives and fee rates
Annex B – IMO and Green Ship reduction factors for the EEDI
Annex C – List of fuels and their respective carbon content
Annex D – Application form for ships that use of LNG and low-carbon fuels
Annex E – List of Recognised Organisations

Green Ship Programme incentives

Criteria	Types of incentives and % reduction/rebate given	
	Initial Registration Fee (IRF)	Annual Tonnage Tax (ATT)
Adoption of energy efficient ship designs exceeding MARPOL Annex VI EEDI Index	50% reduction	20% rebate
Adoption of liquefied natural gas (LNG) as a fuel*	75% reduction	50% rebate
Adoption of fuel with lower carbon content than LNG**	50% reduction	20% rebate
Adoption of both energy efficient ship designs exceeding MARPOL Annex VI EEDI and fuel with lower carbon content than LNG**	75% reduction	50% rebate

* Enhancement effective from 1 July 2016

** Enhancement effective from 1 January 2020

Initial Registration Fee for qualifying ships under the Green Ship Programme

IRF	IRF Rate (S\$/NT)	Minimum Amount (\$)	NT equivalent	Maximum Amount (\$)	NT equivalent
Normal registration*	2.50	1,250	500	50,000	20,000
Normal registration with EEDI; <u>or</u> low-carbon fuel	1.25	625	500	25,000	20,000
Normal registration LNG; <u>or</u> EEDI & low-carbon fuel	0.625	312.50	500	12,500	20,000
BTS registration**	0.50	1,250	500	20,000	40,000
BTS EEDI; <u>or</u> low-carbon fuel	0.25	625	2,500	10,000	40,000
BTS LNG; <u>or</u> EEDI & low-carbon fuel	0.125	312.50	2,500	5,000	40,000

*Normal registration IRF rate: S\$2.50/NT, with min S\$1,250 (500 NT) and max S\$50,000 (20,000 NT)

**BTS registration IRF rate: S\$0.50/NT, with min S\$1,250 (2,500 NT) and max S\$20,000 (40,000 NT)

Annual Tonnage Tax payable for qualifying ships under the Green Ship Programme

ATT	ATT Rate (S\$/NT)	Minimum Amount (\$)	NT equivalent	Maximum Amount (\$)	NT equivalent
Normal/BTS registration***	0.20	100	500	10,000	50,000
Normal/BTS registration EEDI, Existing Green Ship & Registration Anew scenarios	0.16	80	500	8,000	50,000
Normal/BTS registration LNG; <u>or</u> EEDI & low-carbon fuel	0.10	50	500	5,000	50,000

***Both normal and BTS registration ATT rate: S\$0.20/NT, with min S\$100 (500 NT) and max S\$10,000 (50,000 NT)

MARPOL Annex VI Reduction Factors (in Percentage) for the EEDI Relative to the EEDI Reference Line

For reference, Table 1 below shows the requirement of the IMO's EEDI. This is not the criteria for Singapore-flagged ships to qualify for the GSP. To qualify for the GSP, Singapore-flagged ships have to exceed the requirements of the IMO's EEDI. More details can be found in Table 2.

It is likely that MEPC 75 will adopt amendments to Table 1, specifically to the size categorisation, reduction factor values for each phase, and Phase 3 start date for the following ship types: gas carrier, container ship, general cargo ship, LNG carrier and cruise passenger ship with non-conventional propulsion. This circular will be updated accordingly with the adoption of the amendments.

Table 1

Ship Type	Size	Phase 0 (1 Jan 2013 - 31 Dec 2014)	Phase 1 (1 Jan 2015 - 31 Dec 2019)	Phase 2 (1 Jan 2020 - 31 Dec 2024)	Phase 3 (1 Jan 2025 and onwards)
Bulk Carrier	20,000 DWT and above	0	10	20	30
	10,000 - 20,000 DWT	NA	0-10*	0-20*	0-30*
Gas Carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	NA	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	NA	0-10*	0-20*	0-30*
Container Ship	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	NA	0-10*	0-20*	0-30*
General Cargo Ship	15,000 DWT and above	0	10	15	30
	3,000 – 15,000 DWT	NA	0-10*	0-15*	0-30*
Refrigerated Cargo Carrier	5,000 DWT and above	0	10	15	30
	3,000 – 5,000 DWT	NA	0-10*	0-15*	0-30*
Combination Carrier	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	NA	0-10*	0-20*	0-30*
LNG Carrier***	10,000 DWT and above	NA	10**	20	30

Ship Type	Size	Phase 0 (1 Jan 2013 - 31 Dec 2014)	Phase 1 (1 Jan 2015 - 31 Dec 2019)	Phase 2 (1 Jan 2020 - 31 Dec 2024)	Phase 3 (1 Jan 2025 and onwards)
Ro-ro Cargo Ship (Vehicle Carrier)***	10,000 DWT and above	NA	5**	15	30
Ro-ro Cargo Ship***	2,000 DWT and above	NA	5**	20	30
	1,000 – 2,000 DWT	NA	0-5*,**	0-20*	0-30*
Ro-ro Passenger Ship***	1000 DWT and above	NA	5**	20	30
	250 – 1,000 DWT	NA	0-5*,**	0-20*	0-30*

* The reduction factor is to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

** Phase 1 commences for those ships on 1 September 2015.

*** Reduction factor applies to those ships delivered on or after 1 September 2019, as defined in MARPOL Annex VI Reg. 2.43

Green Ship Programme reduction factors (in percentage) for the EEDI relative to the EEDI reference line

Table 2 below shows the reduction factors for ships to meet in order to qualify for the GSP. As an illustration, a 20,000 DWT bulk carrier would have to attain a reduction factor of 30% and above, which is IMO's EEDI requirement in Phase 3, to qualify for the GSP. If the ship is newly-registered on or after 1 January 2020, it will enjoy a 50% reduction on IRF and 20% rebate on ATT payable. If the ship is an existing ship¹, it will only enjoy 20% rebate on ATT payable.

Table 2

Ship Type	Size	From 1 Jan 2020 to 31 Dec 2024 ²
Bulk Carrier	20,000 DWT and above	30
	10,000 – 20,000 DWT	0-30*
Gas Tanker	10,000 DWT and above	30
	2,000 – 10,000 DWT	0-30*
Tanker	20,000 DWT and above	30
	4,000 – 20,000 DWT	0-30*
Container Ship	15,000 DWT and above	30
	10,000 – 15,000 DWT	0-30*
General Cargo Ship	15,000 DWT and above	30
	3,000 – 15,000 DWT	0-30*
Refrigerated Cargo Carrier	5,000 DWT and above	30
	3,000 – 5,000 DWT	0-30*
Combination Carrier	20,000 DWT and above	30
	4,000 – 20,000 DWT	0-30*
LNG Carrier**	10,000 DWT and above	30
Ro-ro Cargo Ship (Vehicle Carrier)**	10,000 DWT and above	30
Ro-ro Cargo Ship**	2,000 DWT and above	30
	1,000 – 2,000 DWT	0-30*
Ro-ro Passenger Ship**	1000 DWT and above	30
	250 – 1,000 DWT	0-30*

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

¹ A ship is deemed to be an existing ship if registered before 1 July 2011 (1 September 2015 for new ship types, indicated by “**”) which is the start date of the GSP.

² Requirements for the GSP after 31 Dec 2024 will be determined at a later stage.

List of Fuels and their respective carbon content

The list below is based on the table provided in Resolution MEPC.308(73) Section 2.2.1 (C_F ; Conversion factor between fuel consumption and CO₂ emission).

Type of fuel	C_F		Remarks
1 Diesel/Gas Oil	3.206		Higher C_F values than LNG, not applicable for GSP
2 Light Fuel Oil (LFO)	3.151		
3 Heavy Fuel Oil (HFO)	3.114		
4 Liquefied Petroleum Gas (LPG)	Propane	3.000	
	Butane	3.030	
5 Liquefied Natural Gas (LNG)	2.750		Applicable for GSP
6 Methanol	1.375		
7 Ethanol	1.913		

As of date of issue of this shipping circular, only **Methanol and Ethanol** have lower C_F values than LNG.



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GREEN SHIP PROGRAMME – APPLICATION FORM FOR SHIPS THAT HAVE ADOPTED APPROVED LNG OR OTHER LOW-CARBON FUEL TECHNOLOGY

Particulars of Ship

Name of Singapore-flagged ship:
IMO number:
Official number:

Details of Approved LNG Technology

Is the ship LNG-fuelled? Yes / No
Please attach the Class Certificate, Cargo Ship Safety Construction Certificate and, if available, relevant International Code of Safety for Ships using Gases or other Low flashpoint Fuels (IGF Code) certificates/documents.

Details of Approved Low-Carbon Fuel Technology

Is the ship fuelled by fuel with lower carbon content than LNG? Yes / No
Please attach the Class Certificate, Cargo Ship Safety Construction Certificate and, if available, relevant International Code of Safety for Ships using Gases or other Low flashpoint Fuels (IGF Code) certificates/documents.

Particulars of Declarant

I declare that the above information is accurate.

Full Name and Signature	Appointment of Declarant
Date	

List of Recognised Organisations

1. American Bureau of Shipping (ABS)
2. Bureau Veritas (BV)
3. China Classification Society (CCS)
4. DNV GL
5. Korean Register of Shipping (KR)
6. Lloyd's Register (LR)
7. Nippon Kaiji Kyokai (NK)
8. Registro Italiano Navale (RINA)