

New central subsidies for scrapping and renewing coastal and inland river ships in China

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In August 2024, against the backdrop of a large-scale transportation equipment renewal action plan, China's Ministry of Transport (MOT) and National Development and Reform Commission (NDRC) jointly released a new subsidy policy for scrapping and renewing coastal and inland river ships.¹ Improving the energy efficiency of ships and deploying vessels that run on low-carbon fuels through fleet renewal is an important way to help realize China's carbon-peaking and carbon-neutrality goals.² This paper details the scope and incentives offered under the new policy, and compares them with those under the previous policy, which was in effect from 2015 to 2019.

BACKGROUND

Maritime shipping plays an important role in the freight system in China and was more than 50% of the transport turnover volume in 2023.³ There could be significant costs associated with purchasing new ships, and incentive policies can help stimulate fleet renewal by assisting ship owners in making purchases. Since 2014, China has released several national-level incentive policies to encourage early ship scrapping and renewal (see Figure 1). The first policy focused on coastal and ocean-going vessels, and it was followed by another subsidy policy for inland river ships later that the same year.⁴

- 1 Ministry of Transport, “交通运输部 国家发展改革委关于印发《交通运输部老旧营运船舶报废更新补贴实施细则》的通知 [Notice of the Ministry of Transport and the National Development and Reform Commission on Issuing the Implementation Rules for Subsidies for the Scrapping and Renewal of Old and Used Transport Vessels]” (2024), https://xxgk.mot.gov.cn/2020/jigou/zhghs/202408/t20240802_4145816.html
- 2 State Council of China, “China Maps Path to Carbon Peak, Neutrality Under New Development Philosophy,” press release, October 24, 2021, https://english.www.gov.cn/policies/latestreleases/202110/24/content_WS61755fe9c6d0df57f98e3bed.html.
- 3 People's Daily, “2023年水路货运量首超90亿吨大关——水运发展韧性足潜力大 [Annual Water Freight Volume Exceeds 9 Billion Tons for the First Time in 2023 - Water Transport Development is Resilient and Has Great Potential]” (2024), https://www.gov.cn/yaowen/liebiao/202408/content_6970715.htm#:~:text=%E6%8D%A%E7%BB%9F%E8%AE%A1%EF%BC%8C%E5%8E%BB%E5%B9%B4%E6%88%91%E5%9B%BD%E6%B0%B4%E8%B7%AF,%E7%A4%BE%E4%BC%9A%E5%8F%91%E5%B1%95%E7%9A%84%E6%9C%89%E5%8A%9B%E6%94%AF%E6%92%91%E3%80%82
- 4 Ministry of Finance, “关于印发《老旧运输船舶和单壳油轮报废更新中央财政补助专项资金管理办法》的通知 [Notice on Issuing the “Management Measures for the Special Funds Subsidized by the Central Government for the Scrapping and Renewal of Old Transport Vessels and Single-Hull Oil Tankers”]” (2014), https://www.gov.cn/gzdt/2014-02/28/content_2625368.htm; Ministry of Finance, “关于印发《内河船型标准化补贴资金管理办法》的通知 [Notice on Issuing the “Administrative Measures for Inland Waterway Vessel Standardization Subsidy Funds”]” (2014), https://www.gov.cn/xinwen/2014-04/17/content_2661069.htm

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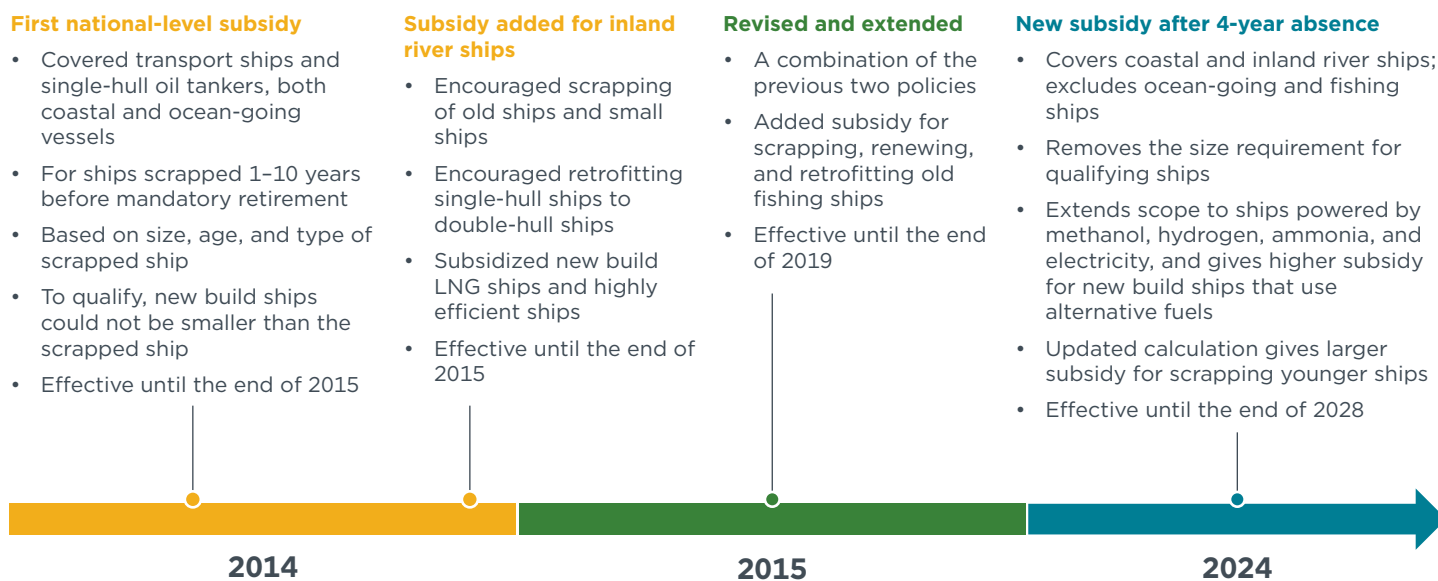
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In 2015, those two policies were combined in a new policy that added subsidies for scrapping, renewing, and retrofitting fishing ships; that program remained effective through 2019.⁵ There were no subsidies offered between 2020 and August 2024.

Figure 1

Timeline of central subsidy policies for ship scrappage and renewal in China



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A BROADER SCOPE

One of the main differences between the 2024 subsidy and the 2015 subsidy is that now more coastal and inland river ships qualify (Table 1); ocean-going vessels and fishing ships are not included in the 2024 policy. Previously, a single-hull oil tanker’s deadweight tonnage (DWT) had to be over 600 and for all other types of coastal ships, the gross tonnage (GT) had to be over 1,000. The 2024 version of the subsidy removed all such size requirements. Additionally, in terms of alternative propulsion, the 2015 policy only subsidized new build liquefied natural gas (LNG) ships, and the 2024 one expands the scope to include more options under the umbrella term “new/clean energy” vessels.

5 Ministry of Finance, “财政部关于印发《船舶报废拆解和船型标准化补助资金管理办法》的通知 [Notice of the Ministry of Finance on Issuing the “Administrative Measures for Subsidy Funds for Ship Scrapping and Dismantling and Ship Type Standardization”]” (2015), https://www.mof.gov.cn/gkml/caizhengwengao/wg2015/wg201512/201604/t20160421_1960412.htm

Table 1
Scope of China’s central subsidies in 2015 and 2024

	Policy year	Ship type	Requirements		
			DWT (tonnes)	GT (tonnes)	Ship age (years)
Early scrapping subsidy	2015	Coastal	<ul style="list-style-type: none"> ≥ 600 for single-hull oil tankers No requirements for all other coastal ships 	≥ 1,000 for all except single-hull oil tankers	1-10 years before mandatory retirement
	2024		—	—	<ul style="list-style-type: none"> 20-30 years old for cargo ships 15-25 years old for passenger ships
	2015	Inland river	<ul style="list-style-type: none"> ≥ 600 for single-hull oil tankers No requirements for all other inland river ships 	<ul style="list-style-type: none"> ≤ 200 for ships in the Beijing-Hangzhou Canal trunk line ≤ 300 for ships in Xijiang trunk line None for others 	<ul style="list-style-type: none"> 15-30 years old for cargo ships, 15-36 years old for cargo ships in the Heilongjiang River system 10-25 years old for passenger ships
	2024		—	—	<ul style="list-style-type: none"> 15-30 years old for cargo ships 10-25 years old for passenger ships
New build ship subsidy	2015	Coastal	—	≥ GT of the scrapped one	—
	2024		—	—	—
	2015	Inland river	—	≥ 400	—
	2024		—	—	—
New/clean energy options for new build ships					
Alternative fuel types that qualify for the new build ship subsidy	2015	LNG ^a			
	2024	Methanol, hydrogen, ammonia, LNG, battery electric			

^a LNG falls under China’s definition of “new/clean energy options.”

The 2024 subsidy is related to ship type, ship age, ship size, and fuel/power type. Ship owners are subsidized for early scrapping, and on top of that, can get additional subsidies for replacing them with new vessels; these are counted separately.

The subsidy for early scrapping is calculated by Equation 1. The base subsidy is the same for inland river ships and coastal ships, \$142 (¥1,000) per GT (also shown in Table 2).⁶ The coefficients of age and ship type are listed in Table 3 and Table 4, respectively. According to the coefficients of age, the later a ship owner scraps the ship, the less subsidy they can get. Prolonging scrapping by around 10 years would halve the subsidy.

$$Subsidy_{scrapping} = Base\ subsidy \times Coefficient_{ship\ type} \times Coefficient_{age} \times GT \quad (1)$$

Subsidies for new build vessels are differentiated between traditional oil-powered vessels and new/clean energy vessels and they must be a “replacement,” meaning that a corresponding vessel must have been scrapped beforehand. The subsidy for a new build oil-powered ship is calculated by Equation 2. The base subsidy for a coastal

⁶ The exchange rate used is US\$1 = ¥7.05.

ship is slightly higher than for an inland river ship. The GT used for calculation is the minimum value of the scrapped and new build ships. When a ship owner scraps and builds multiple ships, they can choose to calculate the subsidy by the pair (a scrapped ship and a new build ship as a pair), or calculate using the total GT.

$$Subsidy_{new\ build\ oil\ power\ ship} = Base\ subsidy_{oil\ powered} \times Coefficient_{ship\ type} \times \min \{GT_{scrapped\ ship}, GT_{new\ ship}\} \quad (2)$$

The subsidy for a new build new/clean energy ship is calculated by Equation 3. The coefficient of energy type is shown in Table 5. These ships receive a higher base subsidy than oil-powered ships, especially for inland river ships (300% higher).

$$Subsidy_{new\ build\ new/clean\ energy\ ship} = Base\ subsidy_{new/clean\ energy} \times Coefficient_{ship\ type} \times Coefficient_{energy\ type} \times \min \{GT_{scrapped\ ship}, GT_{new\ ship}\} \quad (3)$$

Table 2
Base subsidy for scrapping and renewal of operational ships per GT

	Inland river ship	Coastal ship
Early scrapping of existing ship	\$142 (¥1,000)	\$142 (¥1,000)
New build oil-powered ship	\$71 (¥500)	\$85 (¥600)
New build new/clean energy ship	\$312 (¥2,200)	\$142 (¥1,000)

Table 3
Coefficient of ship age

	Inland river ship		Coastal ship	
	Ship age (X)	Coefficient	Ship age (X)	Coefficient
Passenger	10 < X ≤ 15 years	1	15 < X ≤ 18 years	1
	15 < X ≤ 20 years	0.7	18 < X ≤ 22 years	0.7
	20 < X ≤ 25 years	0.5	22 < X ≤ 25 years	0.5
Cargo	15 < X ≤ 20 years	1	20 < X ≤ 23 years	1
	20 < X ≤ 25 years	0.7	23 < X ≤ 27 years	0.7
	25 < X ≤ 30 years	0.5	27 < X ≤ 30 years	0.5

Table 4
Coefficients by ship type

Ship type	Coefficient
Bulk carrier, ore carrier, bulk cement carrier, general cargo, other cargo carrier	1.0
Container ship, refrigerator ship, multipurpose ship, Ro-Ro cargo ship, timber ship	1.2
Passenger ship, Ro-Pax ship, passenger-cargo ship, passenger ferry, passenger-cargo ferry, excursion ship, other passenger ships, liquefied gas carrier, bulk chemical carrier, oil tanker (including asphalt tanker), push boat, tugboat	1.5

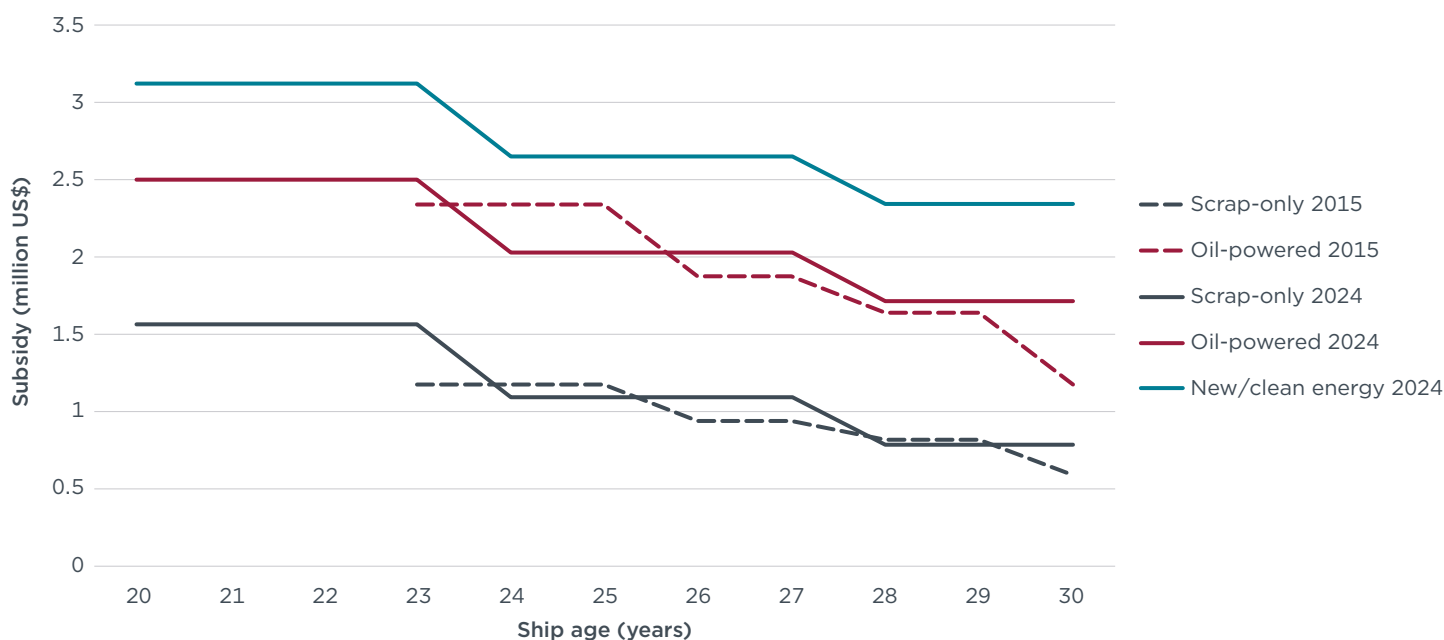
Table 5
Coefficients by new/clean energy type

Energy type	Coefficient
LNG, methanol, hydrogen, ammonia, battery electric	1.0
LNG-oil dual fuel, with LNG usage rate over 60% methanol-oil dual fuel, with methanol usage rate over 50%	0.5

A LARGER INCENTIVE

Here we use a bulk carrier, the most common ship type in inland river and coastal fleets in China, to show how much larger the subsidies are under the 2024 policy than the 2015 one. Figure 2 illustrates the subsidy difference for a coastal bulk carrier with 10,000 GT. The different colors reflect different combinations of scrapping—only scrapping, scrapping and building a new oil-powered ship, and scrapping and building a new ship powered by new/clean energy. Qualifying bulk carriers need to be at least 20 years old in the 2024 policy, compared with 23 years old in the 2015 policy. The subsidy for a new/clean energy ship is around 25% higher than for an oil-powered ship in the 2024 policy; this is further incentive to deploy more ships using alternative fuel/power with lower carbon emissions.

Figure 2
Subsidies for scrapping and renewal of a coastal bulk carrier with 10,000 GT under the 2015 and 2024 policies

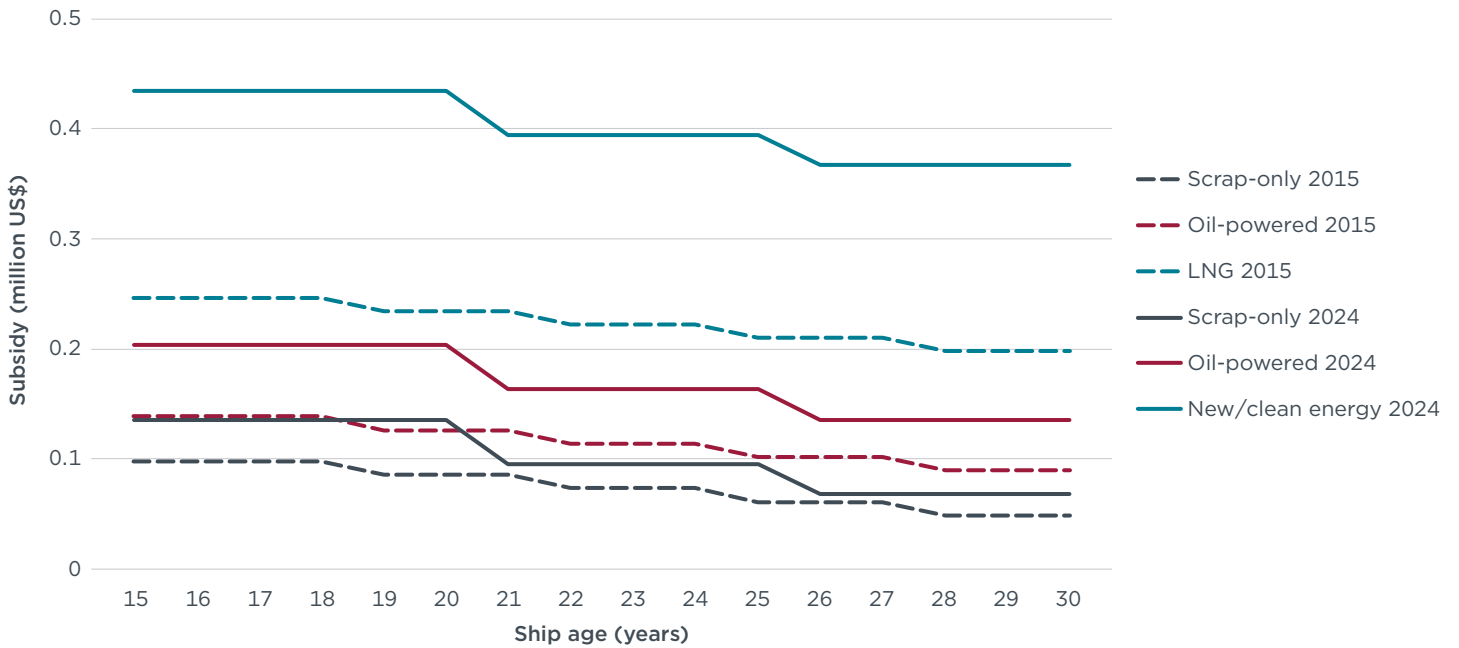


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The subsidies for an inland river bulk carrier with 1,000 GT are compared in Figure 3. The 2024 policy increases incentive support for all scrapping and renewal combinations: For early scrapping, it is 11%–59% higher than in 2015, and if the scrapped ship is replaced by an oil-powered ship, the total subsidy in 2024 is 33%–61% higher than in 2015. The difference is 75%–85% more if the ship is scrapped and replaced by a new/clean energy ship.

Figure 3

Subsidies for scrapping and renewal of an inland river bulk carrier with 1,000 GT under the 2015 and 2024 policies

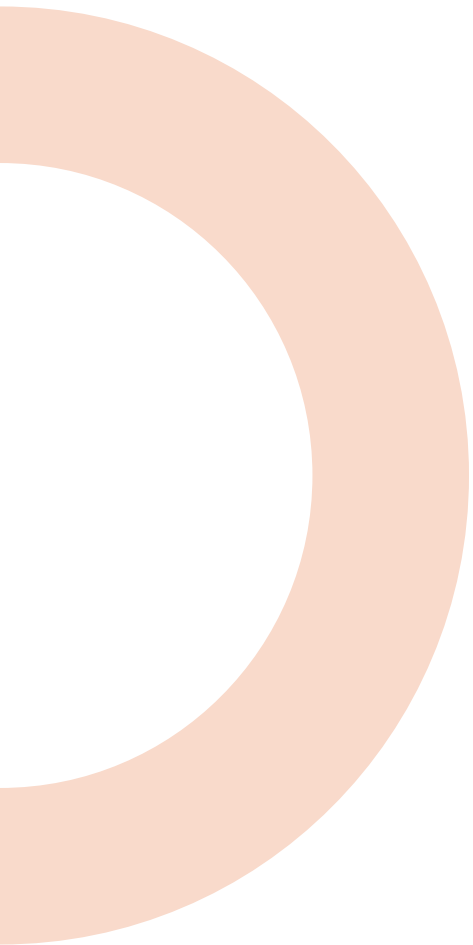


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SUMMARY AND OUTLOOK

With its broader scope of ships covered and larger incentives, the new subsidy policy implemented in August 2024 demonstrates China's steadfast commitment to decarbonizing its maritime fleet. Over the 5-year period from 2024 to 2028, up to \$21 billion (¥148 billion) in capital will be allocated to support fleet renewal.⁷ This will help enhance energy efficiency and accelerate the adoption of new/clean energy ships. To ensure proper utilization of subsidies and their desired impact, the MOT and NDRC will collaborate with provincial-level departments to manage and monitor fund utilization.

7 National Development and Reform Commission, “关于加力支持大规模设备更新和消费品以旧换新的若干措施 [Several Measures to Support Large-Scale Equipment Renewal and Trade-in of Consumer Goods]” (2024), https://www.ndrc.gov.cn/xxgk/zcfb/tz/202407/t20240725_1391941.html



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