

**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**Coram:**

**Shri P.K. Pujari, Chairperson**

**Dr. M.K. Iyer, Member**

**Shri I.S. Jha, Member**

**Suo Motu Petition No. 11/SM/2019**

**Date of Order: 8.11.2019**

**In the matter of**

**Proposed Methodology for Computing the Escalation Rate for Transportation of Imported Coal/Gas on account of Implementation of MARPOL Regulation with effect from 1.1.2020**

**ORDER**

In accordance with the “Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees”, dated 19.01.2005 issued by Ministry of Power under Section 63 of the Electricity Act, 2003, the Commission has been notifying various escalation rates including the escalation rate for transportation of imported coal/gas every six months, for the purpose of payment. The price used for computing the escalation rate for transportation of imported coal/gas for payment has been specified in the methodology/explanation published alongwith the notification dated 22.11.2006. As per the methodology, Singapore 380cst Bunker Price is being used for computing the escalation rate for transportation of imported coal for payment. The latest twelve months data for the period from March to February is being used for computing the escalation rate applicable for the period from April to September. The latest twelve months data for the period from September to August is being used for computing the escalation rate applicable for the period from October to March.

2. International Maritime Organization (IMO) is the United Nations specialized agency responsible for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL Convention) of IMO was first entered into force on 19<sup>th</sup> May 2005. Further, it was revised and adopted in October, 2008. Regulation 14 of MARPOL Annex VI (MARPOL Regulation) states that “the sulphur content of any fuel oil used on board ships shall not exceed 0.5% m/m on and after 1<sup>st</sup> January, 2020”. After assessment of 0.5% Sulphur fuel oil availability, in 2016, IMO decided to go ahead with the 2020 deadline for enforcement of revised sulphur norms. India, as a member of IMO council, ratified the MARPOL Regulation. In this regard, Directorate General of Shipping, Ministry of Shipping, Government of India issued an Engineering Circular, dated 14<sup>th</sup> December, 2018, on “0.5% max limit of the sulphur content in fuel oil-Compliance with the provisions of MARPOL Annex VI Regulation 14”. The circular is applicable to: (a) All seagoing Indian ships registered under Merchant Shipping Act, 1958 and (b) All bunker suppliers registered with GOI in accordance with Regulation 18 MARPOL Annex VI. Para 4 of the Circular dated 14.12.2018 provides as under:-

“4. Requirement:

Regulation 14 states that “The sulphur content of any fuel oil used on board ships shall not exceed 0.50% m/m on and after 1 January, 2020”. The interpretation of “fuel oil used on board” includes use in main and auxiliary engines and boilers. This Regulation prohibits carriage of fuel with sulphur content more than 0.5% on board ships on/after 1<sup>st</sup> March, 2020 and it applies to all ships.

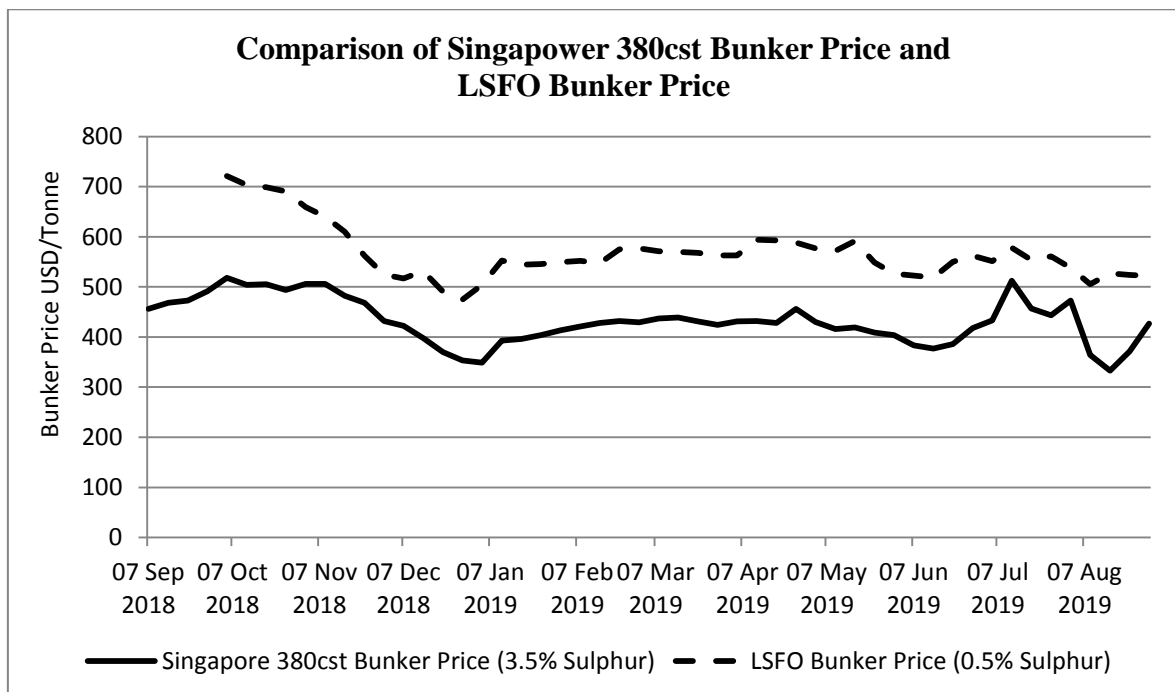
Further as on date, it should be noted that though carriage of more than 0.5% Sulphur Fuel oil is allowed till 1<sup>st</sup> March, 2020, same cannot be used on ships on/after 1<sup>st</sup> January, 2020.

The ‘equivalent’ compliance mechanism is permitted by MARPOL Annex VI, Regulation 4 and includes exhaust gas cleaning systems. EGCS will allow higher

sulphur fuels (>0.50% m/m) to be burnt, with the excess sulphur 'scrubbed' out of the uptake exhaust gas. The prohibition on the carriage of non-compliant fuel oil is not applicable to ships fitted with such 'equivalent' means of compliance.

In the event a compliant fuel oil cannot be obtained, Regulation 18 of MARPOL Annex VI currently provides that a Party to MARPOL Annex VI can request evidence outlining the attempts made to obtain the compliant fuel, including attempts made to locate alternative sources. When a ship is visiting a port where the operator cannot purchase compliant fuel oil due to non-availability, the operator is to notify the ship's Administration and the next destination port authority."

3. The MARPOL Regulation is applicable to all ships transporting imported fuel (coal/gas) from all international ports for use in India. This Regulation mandates the ships to use 0.5% sulphur fuel oil i.e. Low Sulphur Fuel Oil (LSFO), in place of 3.5% sulphur fuel oil which is currently used like Singapore 380cst Bunker Fuel. The LSFO is more expensive than the currently used Singapore 380cst Bunker Fuel. A comparison of prices of these two fuels is given in the following figure.



4. As the MARPOL Regulation is mandatory from the date of its implementation of 1.1.2020, all the ships are required to use LSFO for the purpose

of transportation conforming to the requirement of Regulation 14 of the MARPOL Annexure VI. Change in the fuel used by ships for transportation of coal would impact transportation charges of imported coal/gas. Therefore, there is a need to incorporate the changed fuel prices in the methodology for computing the escalation rate for transportation of imported coal/gas due to implementation of the MARPOL Regulation. Accordingly, the Commission has proposed the new methodology for computing the escalation rate for transportation of imported coal/gas as under:-

- (i) The price of fuel used for computing the escalation rate for transportation shall be changed from Singapore 380cst Bunker Price to LSFO Price. The LSFO prices are published by many index developers. Currently, the available sources of LSFO prices are as follows:

*(a) Low Sulphur Fuel Oil (LSFO) (0.5% Sulphur) Singapore, USD/t:*

Argus Media Ltd has started publishing the LSFO price since May 2018.

*(b) Low Sulphur Fuel Oil (LSFO) (0.5% Sulphur) Singapore, USD/t:*

Platts has started publishing the LSFO price since July 2019.

Based on the availability of historical data on the price of fuel used in shipping, it is proposed to use LSFO price published by Argus Media Ltd for computing the escalation rate for transportation of imported coal/gas.

- (ii) The Commission has already notified the escalation rate for transportation of imported coal for payment applicable for the period from October to December 2019 through its notification dated

30.10.2019. The Commission is required to notify the escalation rate for the period from January to March 2020. It is proposed to compute the escalation rate as under:

(a) Escalation rate applicable for the period from January to March 2020 shall be computed based on the LSFO price for the period from September 2018 to August 2019.

(b) The percentage variation of LSFO price over Singapore 380cst Bunker Price for December 2019 (average of daily prices) shall be the escalation rate applicable for the switchover to LSFO as on 1.1.2020.

(iii) Payment shall be made as per the sample calculation provided in Annexure-I to the order.

5. Comments/suggestions/objections are invited from the stakeholders on the methodology as proposed in Para 4 above by 30.11.2019. A public hearing on this issue shall be held on 10.12.2019.

**Sd/-**  
**(I. S. Jha)**  
**Member**

**Sd/-**  
**(Dr. M. K. Iyer)**  
**Member**

**Sd/-**  
**(P. K. Pujari)**  
**Chairperson**

## Annexure-I

<b>Sample Calculation on Payment Index*</b>						
Month	Month (in numbers)	Annual Escalation Rate (%)	Monthly Escalation Rate (%)	Escalation Applied respective months	Index Value for Payment (Assumed Starting at 100)	Remarks
A	B	C	D (C/12)	E (B*D)	F	G
Sep-19					100.00	Starting Index Value
		6.00%	0.50%			
Oct-19	1			0.50%	100.50	
Nov-19	2			1.00%	101.00	
Dec-19	3			1.50%	101.50	
<b>Escalation Rate for switchover</b>				<b>25.00%</b>	<b>126.88</b>	<b>Base for next quarter</b>
		12.00%	1.00%			
Jan-20	1			1.00%	128.14	
Feb-20	2			2.00%	129.41	
Mar-20	3			3.00%	130.68	Base for next semester
		10.00%	0.83%			
Apr-20	1			0.83%	131.77	
May-20	2			1.67%	132.86	
Jun-20	3			2.50%	133.95	
Jul-20	4			3.33%	135.04	
Aug-20	5			4.17%	136.13	
Sep-20	6			5.00%	137.22	Base for next semester

\* The payment index is calculated using assumed escalation rates, index value, etc.