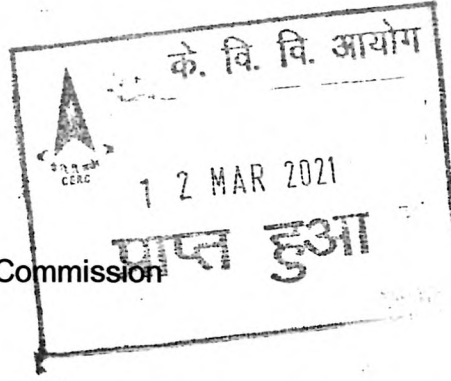


TPL/SUGEN/COMMERCIAL/20-21/107

10<sup>th</sup> March 2021

Shri Sanoj Kumar Jha  
Secretary, Central Electricity Regulatory Commission  
3rd & 4th Floor, Chanderlok Building,  
36 Janpath, New Delhi- 110001



**Sub: Comments on Staff Paper on the "Methodology for computing the Escalation Factors and other parameters for the purpose of Bid Evaluation and Payment for Procurement of Power from Renewable Energy Projects Complemented with Firm Power from any other source through Competitive Bidding"**

Dear Sir,

We refer to the Staff Paper on the "Methodology for computing the Escalation Factors and other parameters for the purpose of Bid Evaluation and Payment for Procurement of Power from Renewable Energy Projects Complemented with Firm Power from any other source through Competitive Bidding" dated 23<sup>rd</sup> February 2021.

Sir, you are aware that gas-based power plant will have to participate with imported LNG due to insufficient / NIL domestic gas availability.

In view of the above, we humbly submit that the methodology of calculating escalation index of variable components of generation on imported gas needs to be revisited for bid evaluation as well as payment purposes. Please refer Annexure-1 for our submission to revisit the same.

We sincerely hope that our submission finds merit for due consideration by Hon'ble CERC.

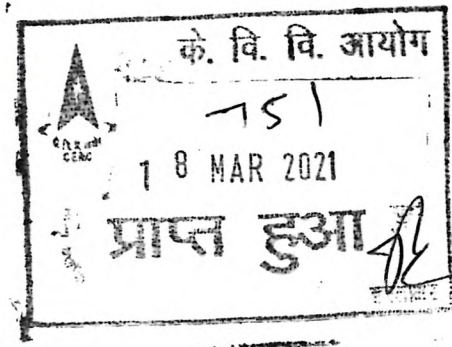
Thanking You.

Yours sincerely,

For Torrent Power Limited



Authorized Signatory



*Mr. Sanjay*  
*Mr. U. R. Prasad*  
*12/3*  
*Mr. Sanjay*

**TORRENT POWER LIMITED**

CIN : L31200GJ2004PLC044068

## Annexure – 1

### 1. Escalation Rate for imported gas:

**Clause 8.7 of Staff paper: Hon`ble CERC has proposed to continue using Japan JCC LNG CIF price for escalation rate of imported gas.**

#### **Submission:**

We propose to link imported gas prices with JKM (Rs. per MMBTU) for the Purpose of Bid Evaluation & Payment. We submit the following rationales for your kind consideration.

- JCC (Japan Crude Cocktail) represents the average price of crude oil imported to Japan and reported by the Japanese Custom (Ministry of Finance) whereas JKM (Japan Korea Marker) reflects market value of cargoes delivered ex-ship (DES) into Japan, South Korea, China and Taiwan. Deliveries into these locations equate to the majority of global LNG demand (especially imported in India).
- Imported gas prices no longer move in tandem with JCC. In this context, it is worth noting that (a) Japan Crude Cocktail (JCC) & Japan-Korea Marker (JKM) which wholly represents LNG prices for South Asia-Pacific region (inclusive of cargo delivery charges) have a weak correlation coefficient of mere 0.61 since 2016 and (b) India's imported gas price is strongly linked with JKM prices. (Please refer Annexure -2).
- Hence, JCC may not be credible reference to calculate escalation index of gas imported in India. Further, it has been observed that, pricing of long-term contracts of imported gas has been revised from JCC to Brent Crude Oil Price since 2016. In view of the same, Brent Crude Oil may still be considered as relevant reference to calculate escalation index of gas imported in India. However, the said linkage has also seen shifting to gas hub linked contract. Please refer Annexure- 3.
- In addition to the above, please refer below given details related to JKM prices which further reinforces it as credible price reference.
  - JKM market is immensely liquid as Japan, South-Korea, and China alone accounts for ~48% of the total global imports.
  - JKM prices are published regularly by PLATTS since February 2009.

- JKM price is on DES basis. Hence, there is no need for separate escalation index for transportation of imported gas.

Further, we also submit that the escalation is to be ascertained based on JKM price in Rs. per MMBTU. Hence, such escalation shall also account for variation in exchange rate. In this view, time series data for JKM (\$per MMBTU) shall be converted into INR/MMBTU using SBI TT Selling rate applicable for the period for calculation of escalation index of gas imported in India.

**2. Escalation Rate for inland transportation of imported gas for purpose of bid Evaluation & Payment to be revised due to the following reasons:**

**Clause 8.4 of Staff Paper**

Hon`ble CERC has proposed that inland transportation of imported gas shall be computed based on the time series data for transportation charges of gas applicable for HVJ pipeline charged by GAIL for the latest 12 years purpose of evaluation.

**Submission**

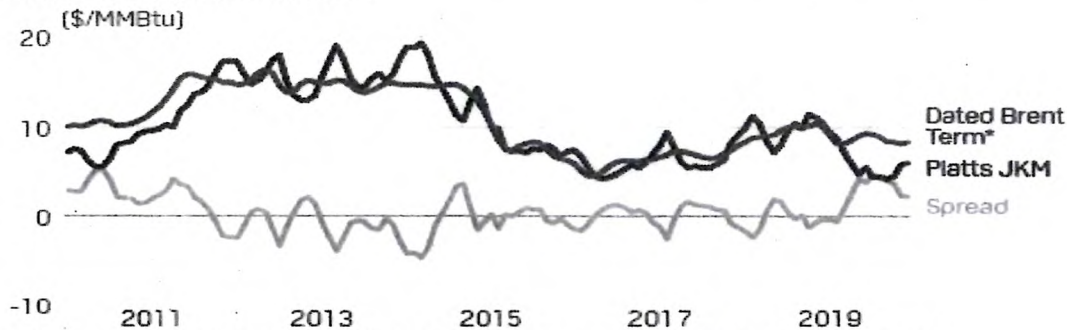
- There are now multiple players transporting natural gas and the earlier standardized escalation rate may not represent zone wise and transporter wise rate determination process of PNGRB.
- Therefore, we propose to have escalation rate for inland gas transportation for each zone /area as published by PNGRB.

CSA

## Annexure – 2

### 1. Spread between Crude-Linked Contracts and Spot LNG

#### WIDENING SPREAD BETWEEN CRUDE-LINKED TERM CONTRACTS AND SPOT LNG PRICES



\* The Dated Brent term contract prices have been calculated with a 13.5% slope  
 Source: S&P Global Platts

Source: <https://www.spglobal.com/platts/en/market-insights/latest-news/oil/012920-oil-linked-lng-deals-add-to-indias-discomfort-as-gas-prices-plunge>

### 2. Correlation Coefficient for the last 5 years is given below.

	<b>JKM</b>	<b>JCC</b>	<b>DWI</b>
<b>JKM</b>	1		
<b>JCC</b>	0.615	1	
<b>DWI</b>	0.832	0.541	1

There is weak positive relationship between JCC & JKM (61.5%) and JCC & DWI (54.1%).

JCC: Japan Crude Cocktail, also known as Japan Custom Cleared, represents the average price of crude oil imported to Japan and reported by the Japanese Custom.

JKM: Platts JKM is the Liquefied Natural Gas (LNG) benchmark price assessment for spot physical cargoes. It is referenced in spot deals, tenders and short-, medium- and long-term contracts both in Northeast Asia and globally.

DWI: Platts West India Marker (WIM) is the Liquefied Natural Gas (LNG) price assessment for spot physical cargoes of delivered ex-ship (DES) into ports in India and the Middle east region.

### Annexure – 3

1. “Global Gas Security Review 2020” by International Energy Agency (IEA) under “Slowly but surely: Pricing developments” heading:

.....  
*The analysis of LNG contracts – by price formula, addressing the split between oil-index and gas to gas pricing, by export and import, by region and country – shows a recent trend towards gas-to-gas indexation in both LNG export and import contracts since the first US LNG shipment in 2016.*

.....  
*Continuing from 2019’s rise of new pricing schemes, including a coal-linked agreement between Shell and Tokyo Gas, 2020 us also seeing LNG markets continue to diversify from oil pricing with JKM-linked pricing signed for both spot and term cargoes. Recent examples include two regasified natural gas contracts signed by BP in July 2020 with two Chinese companies (ENN and Foran Energy), both of which used JKM-linked Pricing.*

2. Reliance – BP also awarded Indian domestic gas tenders on JKM-linked basis (Source: <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/020821-reliance-bp-award-indian-domestic-gas-tender-on-jkm-linked-basis-sources>)
3. Vedanta Limited has recently issued a tender for sale of gas from RJ-ON-90/1 Block and the pricing is linked to DES WI Price or Brent Crude Prices (whichever is lower) (Source: <https://eps.buyjunction.in/QEPS/security/getDGHSignInAction.do>)

CD