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February 20, 2019

**To All members of LV Switchgear and MV+HV Switchgear Division**  
**To all State Electricity Boards, Utilities and Other purchasing organizations**

**Sub: Final Price variation clauses for**

1. LV Switchgear and Controlgear
2. MV AIS (Up to & Including 36 KV) Switchgear and Controlgear

IEEMA LV Switchgear and MV+HV Switchgear division has decided to revise old Price Variation clause applicable for LV and MV Switchgear (effective from January 2002) with change in cost composition and changes the sources for few raw materials which are currently in vogue.

IEEMA had circulated a Draft PV clause for LV and MV Switchgear vide cir. No. **02/DIV/LVSWGR/05** dated **January 17, 2019**. After incorporating suggestions on the above; we are making it final and operational from 1<sup>st</sup> January 2019.

We enclose separate revised PV clauses (effective from January 2019) for LV Switchgear (up to 1100 kV) and MV Switchgear (above 1100V up to 36 kV) along with sample two-step calculation. Monthly PV circulars of January 2019 as per old and new PV clauses are being published separately.

We request and recommend all the users & stakeholders including Utilities, PSUs etc. to incorporate these revised PV formula in all the new tenders/contracts.

For pending contracts, for the date of delivery on or after 1<sup>st</sup> April 2019, to arrive at the final price variation, we recommend using the following two stage method, which is a standard institutionalized methodology adopted by IEEMA for change over in all IEEMA PV clauses.

1. Calculate price variation 'P' from applicable prices/indices as per your base date / date of tendering up to January 2019 i.e. considering all prices/indices published in PV circular of January 2019 at numerator place; using IEEMA PV clause effective from January 2002.
2. Treat the above calculated 'P' as 'P<sub>0</sub>' and calculate final price variation considering all prices / indices published in January 2019 as base prices/indices (at the denominator place) up to the applicable prices/indices as per your date of delivery; using revised LV / MV Switchgear clause effective from 1<sup>st</sup> January 2019.

A two-step sample calculation is given as annexure.

Senior Director



Price variation formula for LV SWITCHGEAR AND CONTROLGEAR up to & including 1100 V					
	Date of Tendering	Apr-18	Date of Delivery	Apr-19	
Step I					
IEEMA SWGR PVC effective from 1st January 2002					
% Weightages	Raw Material	Applicable month as per Date of Tendering (Apr-18)	Applicable month as per Date of Delivery (FIXED)*	Raw Material	Applicable month as per Date of Delivery (FIXED)#
25	Fix cost			21	Fix cost
17	IS	Jan-18	Nov-18	19	IS
18	C (Copper Bar)	Mar-18	Jan-19	21	C (LME Copper)
10	AL	Mar-18	Jan-19	12	AL
					In (Phenolic Moulding Powder)
13	In	Mar-18	Jan-19	15	
17	W	Dec-17	Oct-18	12	W

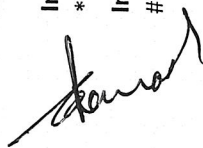
Price variation formula for MV AIS (Above 1100 V and Up to & Including 36 KV) for outdoor circuit breakers and switchgear					
	Date of Tendering	Apr-18	Date of Delivery	Apr-19	
Step I					
IEEMA SWGR PVC effective from 1st January 2002					
% Weightages	Raw Material	Applicable month as per Date of Tendering (Apr-18)	Applicable month as per Date of Delivery (FIXED)*	Raw Material	Applicable month as per Date of Delivery (FIXED)#
25	Fix cost			20	Fix cost
17	IS	Jan-18	Nov-18	28	IS
18	C (Copper Bar)	Mar-18	Jan-19	26	C (LME Copper)
10	AL	Mar-18	Jan-19	4	AL
13	In (Epoxy Resin)	Mar-18	Jan-19	9	In (WPI of Insulator)
17	W	Dec-17	Oct-18	13	W

In step I calculation,

\* all prices/indices to be taken from circular ref IEEMA(PVC)SWGR/(R)/01/2019 for applicable month as per old PV formulae wef Jan 2002

In step II calculation,

# all prices/indices to be taken from circular ref IEEMA(PVC)SWGR(R-1)/01/2019 for applicable month as per new PV formulae wef Jan 2019





IEEMA/PVC/MVSWGR/2019 (R-2)

Effective from: 01 January 2019

**PRICE VARIATION CLAUSE FOR MV AIS (Above 1100 V and Up to & Including 36 KV)  
SWITCHGEAR AND CONTROLGEAR**

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left( 20 + 28 \frac{IS}{IS_0} + 26 \frac{C}{C_0} + 4 \frac{AL}{AL_0} + 9 \frac{In}{In_0} + 13 \frac{W}{W_0} \right)$$

Wherein,

- P = Price payable as adjusted in accordance with the above formula.
- P<sub>0</sub> = Price quoted/confirmed. (Exclusive of all taxes & duties)
- IS<sub>0</sub> = Wholesale price index number for 'Manufacture of Basic Metals' (Base: 2011-12=100)(refer notes)  
This index number is as applicable for the month, **THREE** month prior to the date of tendering.
- C<sub>0</sub> = Average LME settlement price of copper wire bars (refer notes)  
This price is as applicable for the month, **ONE** month prior to the date of tendering.
- AL<sub>0</sub> = Price of busbar grade aluminium (refer notes)  
This price is as applicable on the 1st working day of the month, **ONE** month prior to the date of tendering
- In<sub>0</sub> = Price of epoxy resin for indoor circuit breakers and switchgear (refer notes)  
This price is as applicable on the 1<sup>st</sup> working day of the month, **ONE** month prior to the date of tendering.  
**OR** Whole sale price index of Insulator for outdoor circuit breakers (VBF and SDB) (refer notes)  
This index number is as applicable for the month, **THREE** month prior to the date of tendering.
- W<sub>0</sub> = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)  
This index number is as applicable for the month, **Four** months prior to the date of tendering.

For example, if date of tendering of indoor circuit breakers falls in April 2019, applicable prices of Copper (C<sub>0</sub>), Aluminium Busbar (AL<sub>0</sub>) and Insulating Material (In<sub>0</sub>) should be as on 1st March 2019 and Wholesale price index number for 'Manufacture of Basic Metals' (S<sub>0</sub>) and all India average consumer price index no. (W<sub>0</sub>) should be for the month of January 2019.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/SWGR(R-1)/ / **ONE** month prior to the date of tendering.

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IEEMA/PVC/MVSWGR/2019 (R-2)

Effective from: 01 January 2019

- IS = Wholesale price index number for 'Manufacture of Basic Metals' (Base: 2011-12=100)(refer notes)  
This index number is as applicable for the month, **FOUR** month prior to the date of delivery.
- C = Average LME settlement price of copper wire bars (refer notes)  
This price is as applicable for the month, **TWO** month prior to the date of delivery.
- Al = Price of busbar grade aluminium (refer notes).  
This price is as applicable on the 1st working day of the month, **TWO** month prior to the date of delivery.
- In = Price of epoxy resin for indoor circuit breakers and switchgear (refer notes)  
This price is as applicable on the 1<sup>st</sup> working day of the month, **TWO** month prior to the date of delivery.  
OR Whole sale price index of Insulator for outdoor circuit breakers (VBF and SDB) (refer notes)  
This index number is as applicable for the month, **FOUR** month prior to the date of delivery.
- W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)  
This index number is as applicable for the month, **FIVE** months prior to the date of delivery.

For example, if date of delivery of indoor circuit breakers in terms of clause given below falls in June 2019, applicable prices of Copper (C<sub>0</sub>), Aluminium Busbar (Al<sub>0</sub>) and Insulating Material (In<sub>0</sub>) should be as on 1<sup>st</sup> April 2019 and Wholesale price index number for 'Manufacture of Basic Metals' (S<sub>0</sub>) and all India average consumer price index no. (W<sub>0</sub>) should be for the month of February 2019.

The date of delivery is the date on which the product is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

#### Notes

- a) All prices of raw materials are exclusive of modvatable GST/CV duty amount and exclusive of any other central, state or local taxes, octroi etc.
- b) The details of prices are as under:
  1. The wholesale price index number for 'Manufacture of Basic Metals' is as published by the Office of Economic Advisor, Ministry of commerce & Industry, Govt. of India, New Delhi with base 2011-12 = 100
  2. The LME price of Copper Wire Bars (in Rs./MT) is the LME average settlement price of Copper Wire Bars converted into Indian Rupees with applicable average exchange rate of SBI of the month. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty



**IEEMA/PVC/MVSWGR/2019 (R-2)**

**Effective from: 01 January 2019**

3. The price of busbar grade aluminium (in Rs/MT) is the average of ex-works price as quoted by the two primary producers for the busbar size 152.4 x 6.35 mm flat approximately, grade equivalent to E91 E as per IS 5082-1998 (or the latest).
4. The price of insulating material (in Rs/Kg) is the price of epoxy resin quoted by a resin manufacturer for their grade CT 5900 or its nearest equivalent applicable for indoor circuit breakers and switchgear above 1100 V and Up to & Including 36 KV.
5. The wholesale price index number for 'Insulators' is as published by the Office of Economic Advisor, Ministry of commerce & Industry, Govt. of India, New Delhi with base 2011-12 = 100 applicable for outdoor circuit breakers (VBF and SDB) above 1100 V and Up to & Including 36 KV.

  
Senior Director