



Indian Electrical & Electronics Manufacturer's Association
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Cir. No. 08/ PVC/BTR CHR/05

27 February 2023

To Members of Battery Storage and Charging Infrastructure Division,
 member manufactures of Battery chargers and
 SEBs and other listed purchasing bodies

Sub: Revision in Battery Charger PV formulae

1. Revision in Battery Charger Equipment PV Clause, 'Conventional Battery Charger'
2. New PV clause for 'Modular Battery Charger' and 'Electric Vehicle Charger'

In view of current practices and technology used for manufacturing and volatility in prices, battery charger manufacturers' felt the need to revise the current applicable PV formula of IEEMA which is effective from Jan 2002. Members then discussed the subject at length and mentioned that battery charger equipment comprises of Semiconductors and Switchgear product (switches, fuses, contactors, MCBs, MCCBs etc.) whose costing to be covered while revising the formula. Considering the demand, members also felt the need to have price variation formula for 'Modular Battery Charger' and 'Electric vehicle charger'.

IEEMA has collected costing data, lead and lag time for manufacturing etc. from major manufacturers of battery chargers and in consensus arrived at the draft Price Variation Clauses for Conventional Battery charger, Modular Battery charger and for Electric vehicle charger vide cir no. **01/ PVC/BTR CHR/05 dated 04th January 2023.**

Since there are no adverse comments received; we are making these operational from 1st January 2023.

Although, these PV clauses are made effective from 1st January 2023, practically they can be incorporated in all the current new tenders/contracts starting from 1st February 2023.

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

For pending contracts, for the date of delivery on or after 1st February 2023, 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 2023 i.e. considering all prices/indices published in PV circular of January 2023; using applicable IEEMA PV clause of Battery Charger which is effective from June 2002.
2. Treat the above calculated 'P' as 'P₀' and calculate final price variation considering all prices / indices published in PV circular of January 2023 applicable for revised PV clause of Battery Charger effective from 1st January 2023 as base prices/indices up to the applicable prices/indices as per the date of delivery; applicable as per revised relevant PV clause of Battery Charger effective from 1st January 2023.

Director

proud partners in implementation



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IEEMA/PVC/BTR-CHRG/2023

Effective from: 1st January 2023

PRICE VARIATION CLAUSE FOR BATTERY CHARGER EQUIPMENT

The price quoted/confirmed is based on the cost of raw materials/components, the wholesale price index numbers and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials, index numbers for wholesale prices 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 formulae:

(A) Conventional Battery Charger

$$P = \frac{P_0}{100} \left(12 + 28 \frac{C}{C_0} + 25 \frac{ES}{ES_0} + 8 \frac{AL}{AL_0} + 8 \frac{ER}{ER_0} + 7 \frac{EP}{EP_0} + 12 \frac{W}{W_0} \right)$$

(B) Modular Battery Charger

$$P = \frac{P_0}{100} \left(11 + 15 \frac{C}{C_0} + 17 \frac{ES}{ES_0} + 4 \frac{AL}{AL_0} + 32 \frac{ER}{ER_0} + 8 \frac{EP}{EP_0} + 13 \frac{W}{W_0} \right)$$

(C) Electric Vehicle Charger

$$P = \frac{P_0}{100} \left(11 + 14 \frac{C}{C_0} + 12 \frac{ES}{ES_0} + 2 \frac{AL}{AL_0} + 35 \frac{ER}{ER_0} + 12 \frac{EP}{EP_0} + 14 \frac{W}{W_0} \right)$$

Wherein,

- P = Price payable as adjusted in accordance with the above formula.
 P₀ = Price quoted/confirmed.
 C₀ = Price of CC copper rods (refer notes)
 This price is as applicable for the month, ONE month prior to the date of tendering.
 ES₀ = Price of CRGO Electrical Steel Lamination (refer note)
 This price is as applicable for the month, ONE month prior to the date of tendering.
 AL₀ = LME CSP Average of Aluminium (refer notes)
 This price is as applicable for the month, ONE month prior to the date of tendering.
 ER₀ = IEEMA's Banker's selling rate of exchange between foreign currency prevailing on the Banker's first working day, ONE month prior to the date of tendering (refer notes)
 EP₀ = Wholesale Price Index Number (WPI) of Electronic PCB/ Micro Circuits (refer notes)
 This price is as applicable for the month, THREE months prior to the date of tendering.

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W_0 = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2016 = 100)

This index number is as applicable for the month, **THREE** months prior to the date of tendering.

For example, if the date of tendering falls in June 2023, the applicable price of Copper (C_0), Aluminium (AL_0), CRGO Electrical Steel Lamination (ES_0) and Exchange Rate (ER_0) should be for the month of May 2023, and wholesale price index numbers for 'Electronic PCB/ Micro Circuits' (EP_0) and all India average consumer price index number (W_0) should be for the month of March 2023.

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

C = Price of CC copper rods (refer notes)
 This price is as applicable for the month, **ONE** month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer note)
 This price is as applicable for the month, **ONE** month prior to the date of delivery.

AL = LME CSP Average of Aluminium (refer notes)
 This price is as applicable for the month, **ONE** month prior to the date of delivery.

ER = IEEMA's Banker's selling rate of exchange between foreign currency prevailing on the Banker's first working day, **TWO** month prior to the date of delivery (refer note)

EP = Wholesale Price Index Number (WPI) of Electronic PCB/ Micro Circuits
 This price is as applicable for the month, **THREE** months prior to the delivery (refer note)

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2016 = 100)

This index number is as applicable for the month, **THREE** months prior to the date of tendering.

For example, if the date of delivery falls in August 2023, the applicable price of Copper (C), Aluminium (AL) and CRGO Electrical Steel Lamination (ES) should be for the month of Jul 2023 and Exchange Rate (ER) should be for the month of Jun 2023, and wholesale price index numbers for 'Electronic PCB/ Micro Circuits' (EP) and all India average consumer price index number (W) should be for the month of May 2023.





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For example, if the date of delivery falls in August 2023, the applicable price of Copper (C), Aluminium (AL) and CRGO Electrical Steel Lamination (ES) should be for the month of Jul 2023 and Exchange Rate (ER) should be for the month of Jun 2023, and wholesale price index numbers for 'Electronic PCB/ Micro Circuits' (EP) and all India average consumer price index number (W) should be for the month of May 2023.

The "date of delivery" is the date on which the Battery Charger equipment 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 are exclusive of GST amount and exclusive of any other central, state or local taxes etc.
- (b) Date of Tendering is the due date of tender submission or date of tender opening whichever is earlier
- (c) The details of prices are as under:
 1. Price of LME average Cash SELLER Settlement price of Primary Aluminium in US\$ per MT as published by London Metal Bulletin (LME) including Premium for Aluminium Ingot in US\$ per MT is converted in Indian Rs./MT using exchange rate and adding appropriate customs duty.
 2. Price of 8 mm CC copper rod (in Rs/MT) is ex-works price as quoted by the primary producer.
 3. The price of CRGO Electrical Steel Lamination is the average price as quoted by processing centres of overseas mills and lamination suppliers
 4. The wholesale price index number for 'Electronic PCB/ Micro Circuits' is as published by the Office of Economic Advisor, Ministry of Industry, Govt. of India, New Delhi with base 2011-12=100.
 5. The exchange rates that would be published by IEEMA would be for the following currencies only.

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|---------------|-------------------|-----------------|---------|
| 1) US Dollars | 2) pound Sterling | 3) Japanese Yen | 4) Euro |
|---------------|-------------------|-----------------|---------|

Authorised Signatory

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