भारत सरकार/ Government of India

विद्युत मंत्रालय/ Ministry of Power

केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority

विद्युत प्रणाली अभियांत्रिकी एवं प्रौद्योगिकी विकास प्रभाग

Power System Engineering & Technology Development Division

Date 14.05.2024

सेवा में ,

Director General,
Bureau of Indian Standards,
9, Bahadur Shah Zafar Marg,
New Delhi – 110002 Email: dg@bis.gov.in,

विषय : Incorporation of AL59 conductor with size 61/4.17 mm in IS 398 (Part 6).

महोदया/महोदय,

Many HVDC Projects are under bidding or are upcoming. Currently apart from ACSR and AAAC, AL 59 conductor with the size of 61/4.36 mm is provided as option to bidders for the selection of conductor for the HVDC transmission line. CTUIL, a utility for transmission planning of Inter-State Transmission Systems, proposed the incorporation of a smaller size of AL59 as an alternate conductor to the ACSR Lapwing conductor (38.2 mm) for ± 800kV/500 kV HVDC under TBCB schemes with a view that it is lighter in weight and its performance is equivalent to ACSR Lapwing conductor (38.2 mm). In this respect, a Committee was constituted under the chairmanship of Member (Power Systems), CEA to study the technical, economic and Safety aspects of AL59 (61/4.17 mm) conductor vis-a-vis ACSR lapwing and other conductors.

2. A Study was carried out by the consultant, whereby it was concluded that performance of AL59 (61/4.17 mm) conductor is comparable to the ACSR Lapwing conductor and it could be included in HVDC projects at the earliest. The proposed conductor apart from a reduction in line loss, will also save the capital cost of the conductor in the range 10-15%, thereby reducing the burden on the end consumer of Power.

3. It is observed that the proposed conductor is not mentioned exclusively in IS 398 (Part 6). This is giving impression that proposed conductor is not a standardized conductor and thereby preventing its use in the Transmission line. Therefore it is requested that the conductor may be included in IS 398 (part-6) so that the conductor can be used in the HVDC based transmission lines widely.

This issues with the approval of competent authority.

भवदीय,

चन्द्र 14/5/2024

Chandra Prakash/ चन्द्र प्रकाश
Chief Engineer/ मुख्य अभियंता

Copy to: (i) SA to Chairperson, CEA
(ii) SA to Member (PS), CEA