



Rationale for the Initiative

- Massive transmission of electricity in the form of DC over lengthy distances by means of submarine cables or overhead transmission line is the high voltage direct current transmission.
- For long-distance power transmission, HVDC lines are less expensive, and losses are less as compared to AC transmission
- In generating substation, AC power is generated which can be converted into DC by using a rectifier. In HVDC substation or converter substation rectifiers and inverters are placed at both the ends of a line. The rectifier terminal changes the AC to DC, while the inverter terminal converts DC to AC
- A lesser number of conductors and insulators are required thereby reducing the cost of the overall system.
- Power loss is reduced with DC because fewer numbers of lines are required for power transmission.
- Due to the absence of frequency in the HVDC line, losses like skin effect and proximity effect do not occur in the system
- Corona loss is less as compared to HVAC transmission lines of similar power.

Who Are We?

About Us

Paramount objective of IEEEEP revolves around dissemination of knowledge. Since its inception in 1969, IEEEEP has been busy in sharing knowledge among the engineering community. IEEEEP, a non-commercial entity, survives on subscriptions from its members and donations from patriotic entrepreneurs dealing with electrical and electronic development and services interventions. IEEEEP is contributing its best efforts for spreading information on engineering education and technology through multiple publications and diversified events; thus playing a commendable role in promoting engineering education and profession in the country.

This particular event is a joint effort by the IEEEEP and the National Transmission & Despatch Company Limited.



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IEEEEP-CPD Seminar on

Past, Present & Future of High Voltage Direct Current Transmission

Thursday, 5th April 2018



**The Institution of
Electrical and Electronics
Engineers Pakistan
(IEEEEP)**

**Dissemination of
Technical Knowledge**

IEEEEP CPD Program 2018