



## Hybrid Switchgear Module Technology

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### Why in News

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Recently, Madhya Pradesh Power Transmission Company has used Hybrid Switchgear Module System for the first time in the state in the expansion of transmission system in Indore. MD Palande and Manish Khare, Executive Engineers posted at Shakti Bhawan, Jabalpur Headquarters, have developed and implemented this module system according to the system of Madhya Pradesh Power Transmission Company.

### Key Points

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- This technology has been used by the transmission company in a newly installed transformer of 50 MVA capacity at 220 KV sub station Bicholi located in Indore East.
- In this, the system receiving the supply from the transformer is connected using underground insulated cable at 33 kV voltage level. For the first time in Madhya Pradesh, such high capacity insulated cable has been used for a 33 kV main system.
- Due to lack of space in the already established ultra high pressure sub-stations in densely populated cities including **Indore, Jabalpur, Gwalior, Ujjain**, there were some problems in expansion, to overcome them and to meet the increasing demand of electricity, Madhya Pradesh Power The transmission company has decided to adopt this new option in the transmission system of the state in the form of **Hybrid SwitchGear Module technology**.
- Managing Director Sunil Tiwari said that this is such a modular and compact design system used in power substations, whose model includes many different functions.
- This model is based on flexibility and adaptability for construction and expansion of substations. The hybrid model can be used for expansion or replacement of any conventional substation.
- It uses air-insulated switchgear and technology of sulfur hexafluoride based gas switchgear with high electrical resistance in a single model.
- This hybrid technology reduces the space used in substations by up to 50% and is a reliable and cost-effective solution for new installations or expansions.