

# Paris Session 2022



## Methods to secure the interoperability of the converters without engaging the 3rd parties

Study Committee B4 (DC systems and Power Electronics)

PS1 Q.1.13 [1]

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Group Discussion Meeting

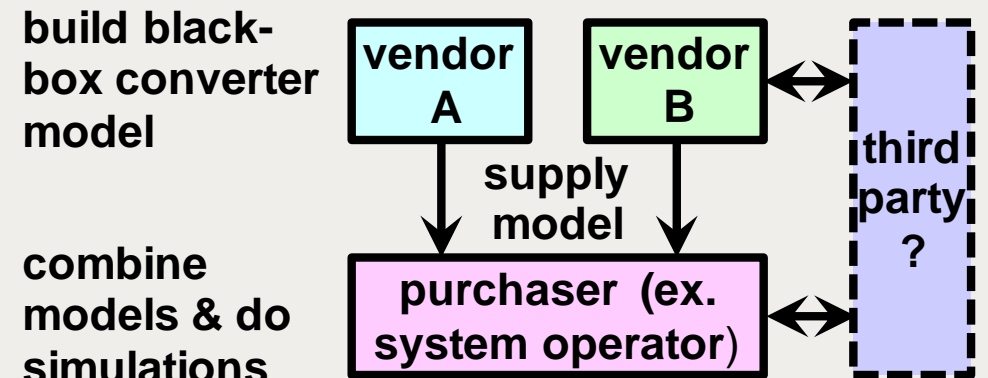
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## What options are available to secure the interoperability of the converters without engaging the 3rd parties?

- One effective way is for HVDC converter vendors to **build black-boxed converter simulation models**. Then the purchaser, such as a power system operator, receives those converter simulation models from the vendors. The system operator **combines the models and conducts offline or HIL simulations** to confirm interoperability between the converters.
- If the HVDC purchaser can **take responsibility for confirming the interoperability** between converters, the HVDC project may proceed without a third party.
- A third party may be necessary if the purchaser has difficulty confirming interoperability. However, it may be possible to reduce the involvement of the third party by **clarifying the scope of responsibility** between the purchaser, vendors and third party.



simulation result waveforms are shared & reviewed by purchaser, vendors (& third party if necessary)