Analysis of the allowable maximum transaction in the power system interconnection by Power System Analysis Simulator

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This paper describes how to analyze the allowable maximum transaction by using KEPS(KEPCO Enhanced Power system Simulator) when the HVDC controller characteristics as well as the overall power system characteristics is considered.
The overview of the KEPS is described and how to model the HVDC controller and its test scheme in the simulator are explained.
At first, the allowable maximum transaction is determined considering the effect of the transaction amount on the overall power system of R.O.K. in the frequency, voltage, overload and stability point of view.
At second, the characteristics of HVDC controller is analyzed as the fault is occurred on the interconnection power line in according to the level of transaction amount by using KEPS.
The allowable maximum transaction can be determined by consideration of the overall power system stability and HVDC controller.
This allowable maximum transaction will be used for the economic evaluation in the power system interconnection.