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Using the modified topological method for assessing the reliability of technical systems by the example of HVDC back-to-back Russia–Finland.

Calculations of complex parameters of structural reliability by the example of Russia–Finland power transmission, which includes HVDC back-to-back (Vyborg converter station) with using the modified topological method are fulfilled. The specialized software package «DoRI_CL» was used to create a mathematical model, which implements this method. The results obtained with the use of existing and newly developed algorithms for calculation of reliability parameters were compared. The obtained complex parameters of reliability are confirmed by the data from operation experience.

Key words: complex parameters of reliability, modified topological method, software package, HVDC back-to-back, Russia–Finland power transmission.

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