



**HIGH VOLTAGE DIRECT CURRENT (HVDC)
TRANSMISSION SYSTEMS:
DEVELOPMENT, CURRENT STATUS AND FUTURE PROSPECTS
IN MALAYSIA**

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ABSTRACT

The first HVDC transmission in Malaysia is the 110 km long overhead interconnection between Malaysia and Thailand comprising of two 300MW converter station. This thesis discusses on the development of HVDC transmission systems and the future prospects of HVDC's transmission in Malaysia. Investigation was carried out to discover the suitability of HVDC transmission for Malaysia scenario in terms of power losses on transmission line, the power transfer per month, the maintenance needs and fault occurs per month. The findings can be used for further research especially in lowering the cost of HVDC transmission systems. With the development of Bakun dam as an asset for future power generation to supply power to Borneo Island, peninsular of Malaysia and also for export to neighboring countries, a suitable transmission line system will be required to transfer from the generation part to the end users. HVDC transmission system is one of the options that can offer a lower total or overall transmission cost.

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