

## 电力系统

### 宁东—山东±660 kV直流输电工程解锁逻辑研究

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#### 摘要:

换流器解锁性能是考核HVDC控制策略的重要指标, 性能良好的解锁过程使直流系统起机平滑, 对交流系统产生较小的扰动。宁东—山东±660 kV直流工程是世界上首个±660 kV电压等级的直流输电工程, 其解锁沿用SIMSDYN D技术的Kick Start策略, 分析该解锁策略并与MUCH2的解锁策略进行对比, 最终在HVDC物理模型和实际的宁东直流工程控制保护平台上进行仿真实验, 并对该工程解锁逻辑电流参考值释放0.1 pu时存在的电流向零轴方向过调问题进行修正, 使其更加平滑。

#### 关键词:

### Deblock Logic for ±660 kV DC Power Transmission Project From Ningdong to Shandong

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#### Abstract:

Deblock performance of converters is an important index to examine the control strategy of HVDC power transmission project. A well behaved deblock can make the starting process of DC system smoothly and mitigate the disturbance in AC system. The ±660 kV DC power transmission project from Ningdong to Shandong is the first DC power transmission project operated in ±660 kV voltage grade in the world, and the Kick Start strategy from SIMSDYN D technique is applied to the deblock of this ±660 kV DC transmission project. The deblock strategy is analyzed and compared with the deblock strategy MUCH2, and the deblock strategy is simulated by physical model of HVDC and tested on actual control and protection platform for the ±660 kV DC power transmission project. When the reference value of current of deblock logic is released to 0.1 pu, the phenomenon of current overregulation in the direction of zero-axis is modified to make the deblock current more smoother.

#### Keywords:

收稿日期 2010-08-09 修回日期 2010-11-19 网络版发布日期 2011-03-11

DOI:

基金项目:

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