

Paper 13: PROTECTION CHALLENGES FOR DELAY ZERO CROSSING

Author: Hussain Alawami (Saudi Aramco)

Abstract:

There are huge MVARs generated by long HV submarine cables which results in significant overvoltage that would need shunt reactors to maintain the voltage within acceptable limits. The shunt reactors needed in the studied system creates a delay zero crossing for the current due to the DC component. HV breaker would be significantly damaged breaking this current. This paper would discuss the mitigation without compromising the quality and the reliability of the electrical system through special protection design and scheme.