عنوان فارسی مقاله:
جونبش از توان راکتیو در ارزیابی قابلیت اطمینان سیستم های قدرت

عنوان انگلیسی مقاله:
Reactive Power Aspects in Reliability Assessment of Power Systems

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
VI. CONCLUSIONS

This paper investigates reactive power aspects in power system reliability evaluation. A technique is proposed to evaluate system and load point reliability of power systems with reactive power shortage due to failures caused by reactive power sources such as generators, synchronous condensers, and compensators. The reliability indices due to reactive power shortage are separated with those due to real power shortage. Reactive shortage is determined using reactive power injection at the nodes with the voltage violation to provide more information for system planning and operation. The effect of $P - Q$ curve on system reliability has been studied. The IEEE 30-bus test system is modified and analyzed to illustrate the technique and models. The results show that reactive power will have significant impact on system reliability and should be considered in reliability evaluation. The proposed new reliability indices provide very important information for system planners and operators to make their decisions. The paper also provides different ways for system operators to alleviate network violations and to find the optimal location for installing new reactive power compensators.