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## **DISPATCHER TRAINING SIMULATOR**

### **ABSTRACT**

The deregulation and liberalization of energy market in Europe have seriously affected the conditions of energy production, transmission and distribution as well as power system planning, operation, control and maintenance. On one side customers ask for a cheap price of electricity, and on the other side there is still a need for electrical power systems of a high quality. Deregulation creates a pressure to lower costs with the effect of reductions of new investments and staff. Less grid maintenance and less staff even in a control center obviously create the danger of worse quality. Main questions are how to keep a reasonable quality of power supply, to get most effort out of the investments and how to increase efficiency and customer services? Experience shows that only control center with well-educated personnel can increase reliability and stability of power systems. Only experienced and well-trained personnel can achieve a reliable optimum under consideration of all economic demands and technical constraints. Staff qualification can be achieved by studies of network theory and electrical behavior of all grid components, followed by several years of practice. This level of qualification can be achieved much quicker and risk free by using dynamic training simulator. In order to be able to react professionally and stress-free in the case of any power system emergency, everyone has to have a high level of experience and has to be familiar with handling of disturbances. It is expected that the operators in dispatch centers will be able to solve technical problems with more experience, skills and knowledge, but also to bring advantages to the company by a higher economic awareness.

**Keywords:** Dispatcher training simulator, Control and management of power system, SCADA.