

The capacitance bank is generally used for compensation in a distributed power grid, if the latter is connected to the utility. An islanded power grid is a distribution grid disconnected from the utility. It can undergo a disturbance namely the ferroresonance phenomenon if the capacitance bank has a non adequate value. In this paper, a study of an islanded power grid is attempted to show the effect of the reconfiguration of the capacitance bank on the ferroresonance. A simulation of the circuit is conducted using Simulink/ MATLAB. In another part of this work, an example of overvoltage study in a distribution medium network using ATP is also presented