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## A Review of Automatic Switching by Using PLC System

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Abstract— The supply of electricity for industrial, commercial and domestic use is highly unstable. This gives rise to the frequent use of alternative sources of power supply to meet up with the energy demands. The introduction of these alternative sources of supply brings forth the challenge of switching smoothly and timely between the mains supply and the alternative sources whenever there is a failure on the mains source. This paper presents design and implementation of automatic switching circuits which is used in PLC automation for constructing a workable automatic change-over switch with generator starting/shut down functions. This switch turns ON the generator automatically in cases of mains power failure and connects the load to the generator output, alternatively it switches OFF the generator automatically once power is restored and returns the load to the mains power with the help of desired range of parameters which may be set by programmer.

Keywords—Switching, Power Supply, PLC, Relays Automation, Sensors, Ladder Logic.