

Feasibility Study on Improvement of Power Distribution System Reliability Using Smart Recloser Technology: Case Study of Arba Minch Distribution System

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Abstract – This paper attempts to thoroughly identify causes for power interruptions and discusses the reliability improvement using smart recloser Technology. Distribution systems deliver power from bulk power systems to customers. Distribution reliability primarily relates to equipment outages and customer interruptions. This study presents the feasibility result of the power distribution reliability for Arba Minch Distribution system of Secha Feeder and the possibility of using smart reclosers for improving the pressing power interruption problem. The smart reclosers are key elements for fault detection, isolation and restoration. The Electrical Transient Analysis Program (ETAP) software has been used to verify the improvement of the reliability indices for the distribution system.

Keywords: - Distribution System, Distribution Automation, Reliability Indices, Smart Grid, Smart Recloser
