

Power Quality Issues: Power Supply Interruptions as Key Constraint to Development in Ekiti State, Nigeria

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Abstract : The power quality issues in the world today are critical to the development of different nations. Prosperity of each nation depends on availability of constant power supply. Constant power supply is a major challenge in Africa particularly in Nigeria where the generated power is than thirty percent of the required power. The metrics of power quality are voltage dip, flickers, spikes, harmonics and interruptions. The level of interruptions in Ekiti State was examined through the investigation of the causes of power interruptions in the State. The method used was the collection of data from the Distribution Company, assessment through simple programming as a command for plotting the graphs through the use of MATLAB 2015 depicting the behavioural pattern of the interruption for a period of six months in 2016. The result shows that the interrelationship between the interruptions and development. Recommendations were suggested with the objective of solving the problems being set up by interruptions in the State and these include installation of reactors, automatic voltage regulators and effective tap changing system on the lines, busses and transformer substation respectively.

Keywords : development, frequency, interruption, power, quality

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