The purpose of this study was to examine the effectiveness of staff performance appraisal as value addition strategy in organizations within the electricity sub sector in Kenya. The study aimed at establishing the extent to which training of appraisers, technological changes and organizational rules and regulations among other factors affect the exercise. The study was conducted by use of descriptive and inferential statistics. Descriptive statistics was used to summarize data and describe the sample, while inferential statistics enabled the researcher to infer the sample results to the population. Out of 1245 staff from head office, a sample size of 124 was randomly selected. The capacity for creativity and innovation is distributed widely amongst the staff within the organization. This provided advantage of the diversity in terms of profession, age, gender, experience and job category. The study found out that employees did not know much what the appraisal was up to (the functions of the appraisal), they did not think the instruments were consistent and required modifications to suit the changing working environment and trends, and the feedback of the exercise took too long, which lost meaning. The researcher recommends that the management of the organizations should be more involved in the exercise so as to achieve the objectivity the exercise deserves and room for the juniors to appraise their superiors as well. Finally, the study recommends that for maximum results, the appraisers should be trained on appraisal and the recommendations made thereof be implemented. Promotion and salary adjustments for deserving staff should be enhanced and the underperformers should be helped to achieve their targets in the next period.