

Development of Value Based Planning Methodology Incorporating Risk Assessment for Power Distribution Network

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Abstract : This paper describes value based planning (VBP) methodology incorporating risk assessment as an enhanced and more practical approach to evaluate distribution network projects in Peninsular Malaysia. Assessment indicators associated with economics, performance and risks are formulated to evaluate distribution projects to quantify their benefits against investment. The developed methodology is implemented in a web-based software customized to capture investment and network data, compute assessment indicators and rank the proposed projects according to their benefits. Value based planning approach addresses economic factors in the power distribution planning assessment, so as to minimize cost solution to the power utility while at the same time provide maximum benefits to customers.

Keywords : value based planning, distribution network, value of loss load (VoLL), energy not served (ENS)

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