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COMBINED STOCHASTIC TECHNIQUE. COMPARISON OF RESULTS OBTAINED BY DIFFERENT MULTI CRITERIA DECISION MAKING TECHNIQUES

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Abstract

To solve the optimization problem of distributed generation (DG) optimal placement Combined Stochastic Technique [5] has been developed. Components of the objective function is standardized and balanced by weight coefficients. The determination of the latter is proposed to be carried out by an Expert Evaluation Technique (EET). However, such an approach is

unfounded. Therefore, the object of this paper is to determine whether the obtained with EET weight coefficients correspond with the problem formulation, according to which peculiarities of both power grid and DG must have equal influence on the rating of problem solution. To achieve the object optimal problem solution was determined by multi criteria decision making techniques TOPSIS, VIKOR and VIKOR-kernel. Weight coefficients are defined with Information Entropy Weight Method. Obtained results are practically identical to obtained previously. Therefore, weight coefficients were properly determined by an EET References 9, figure 1, tables 5.

Key words: distributed generation, Combined Stochastic Technique, multiple criteria decision making, TOPSIS, VIKOR, VIKOR-kernel.

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