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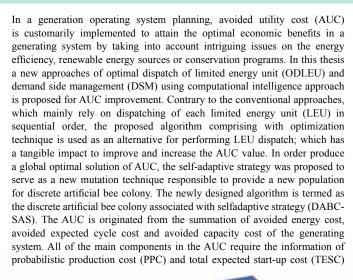
Title : COMPUTATIONAL INTELLIGENCE OF PROBABILISTIC SIMULATION IN DEMAND SIDE MANAGEMENT FOR AVOIDED UTILITY COST

IMPROVISATION IN A GENERATION OPERATING SYSTEM PLANNING

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of generating unit. The PPC is obtained by considering the uncertain load duration curve and forced outage rate of generating unit. On the other hand, the TESC is determined within the framework of equivalent load duration curve, and frequency and duration method. It is arguably that the probabilistic peak shaving technique incorporating with the equivalent load duration curve significantly improves the performance of ODLEU and DSM towards providing accurate result of PPC and TESC followed by the AUC, in contrast with the other techniques of peak shaving and off-loading. On top of that, performance comparison between the basic concept of ODLEU and DSM that used to determine global optimal solution of AUC are numerically demonstrated in a case study of six generating unit's system. Further investigation on the DABC-SAS that improves the performance of ODLEU and DSM has been carried-out by referring to the global optimal solution of AUC associate with energy efficiency concept obtained for the modified IEEE RTS-79 generating system at every load demand variation of 2850MW, 3000MW and 3050MW. Compendium of the results have shown that the DSM based DABC-SAS outperformed the performance of ODLEU based DABC-SAS, basic approach of ODLEU and basic approach of DSM in determining the global optimal solution of AUC.