

발전기 연간 보수계획을 위한 의사결정 지원 시스템 :
전문가 시스템과 최적화 기법의 통합

A Decision Support System for Generator Maintenance Scheduling:
Integration of Expert Systems and Mathematical Optimization

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ABSTRACT

Generator maintenance scheduling plays an essential role in mid-term electricity system planning with significant effects on the reliability and cost of power supply. Due to her rapid economic growth and the resulting growth of electricity demand, the impact of such a decision is much recognized in Korea. We developed a DSS (Decision Support System) to support the maintenance scheduling of KEPCO practitioners. Its distinguishable feature is the integration of three complementary decision-support tools: screen-based user-friendly interface, the rule-based expert systems and a mathematical optimization technique (branch-and-bound method). These features not only provide the scheduler with user-friendly decision support and flexibility in the decision process but also guarantee improved schedules with higher reliability and lower cost. The system is now well utilized for the practical maintenance scheduling activity in KEPCO.