

Fig.1 A three-stage optimal operation model of source-grid-load-storage considering the mobile energy storage characteristics of electric vehicles

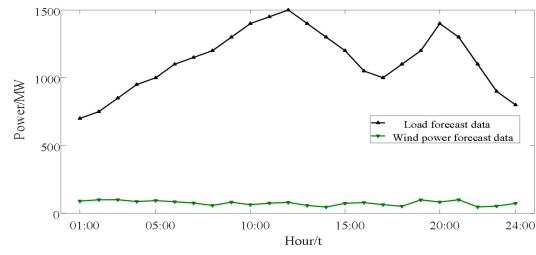


Fig.2 Load and wind power forecasting

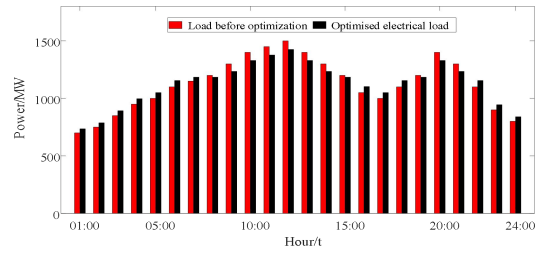


Fig.3 Load curve before and after response

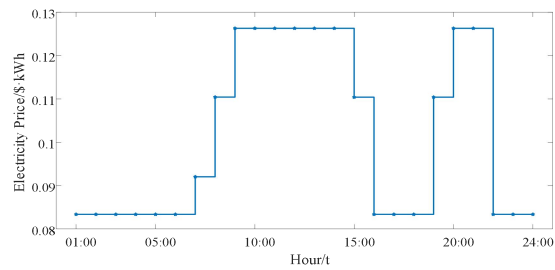


Fig.4 Real-time price after PDR

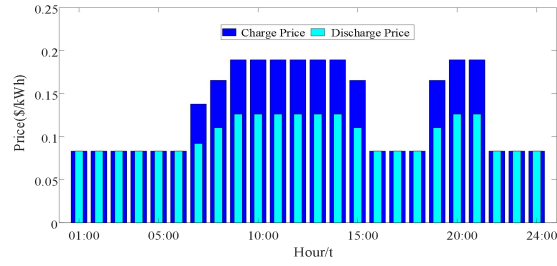


Fig.5 EV orderly charge and discharge price in Scenario 4

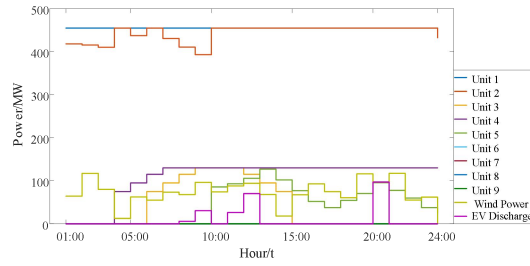


Fig.6 Optimized operating solutions results for scenario 1

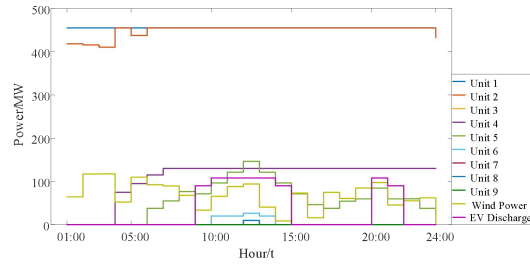


Fig.7 Optimized operating solutions results for scenario 2

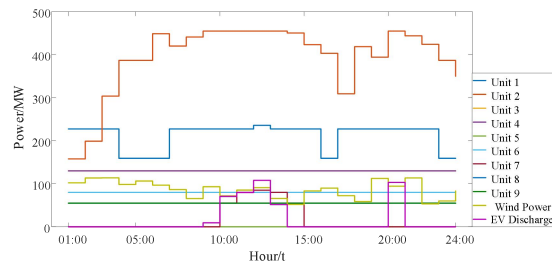


Fig.8 Optimized operating solutions results for scenario 3

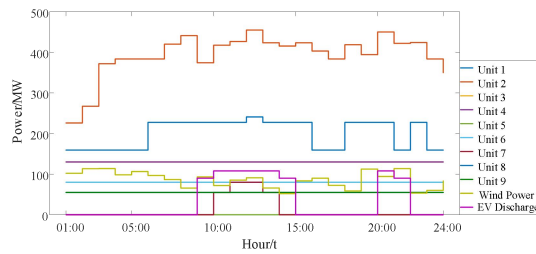


Fig.9 Optimized operating solutions results for scenario 4

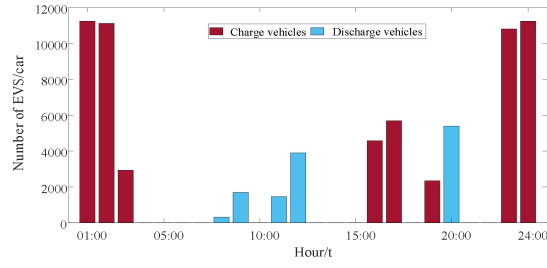


Fig.10 Distribution of EV charging and discharging quantity in Scenario 1

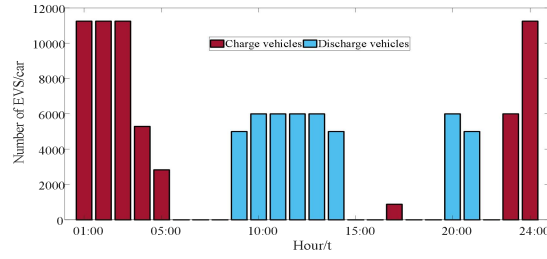


Fig.11 Distribution of EV charging and discharging quantity in Scenario 4

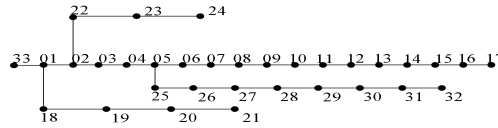


Fig.12 IEEE33-node distribution network topology

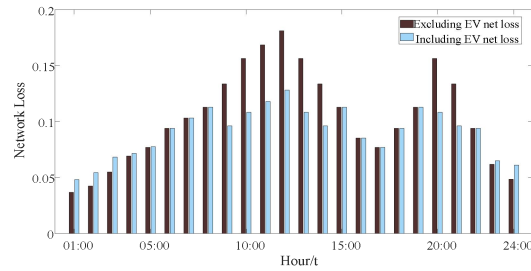


Fig.13 Influence curve of EV on distribution network loss

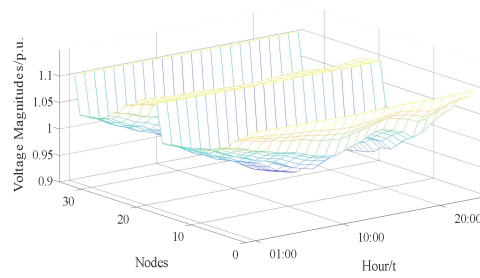


Fig.14 Voltage level for scenario 5

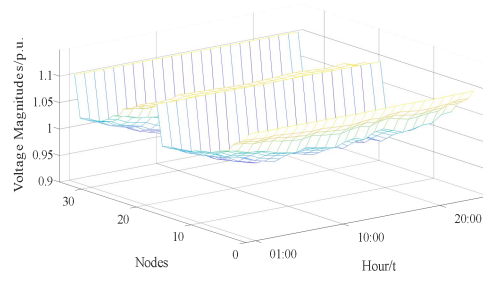


Fig.15 Voltage level for scenario 6

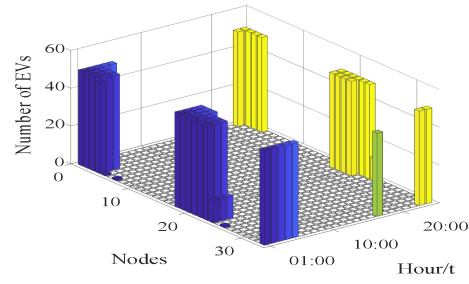


Fig.16 Temporal and spatial distribution of charge vehicles in distribution network

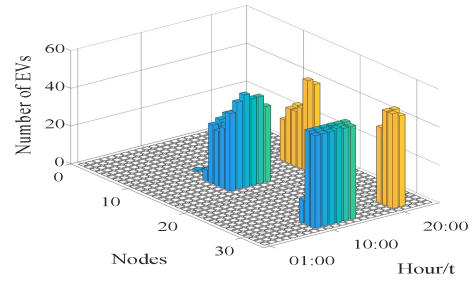


Fig.17 Temporal and spatial distribution of discharge vehicles in distribution network