

Linear Programming Based Hourly Peak Load Shaving method at Home Area

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Abstract—We propose a method about power consumption scheduling for shaving peak load at home area using linear programming technique. Problems caused by peak load such as blackout and rolling blackout has occurred recently in the world because hourly peak load consumption is increased rapidly in the same time. So to solve these problems is using ESS. Especially, the most effective method is to utilize ESS and V2G. Electricity of the battery of parked PHEV at home area transmits through V2G to the ESS. The stored electricity in the ESS is optimized by using linear programming. This optimization reduces the hourly peak load consumption.

Keyword—V2G, ESS, Optimization, Linear Programming, Peak load, Smart Grid, Blackout



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