عنوان مقاله:
Developing Optimal Precooling Strategies through Inverse Modeling

محل انتشار:
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نویسنده:
R. Arababadi - *Arizona State University, USA*

خلاصه مقاله:
Residential air conditioning systems represent a critical load for many electric utilities, especially for those who serve customers in hot climates. In hot and dry climates, in particular, the cooling load is usually relatively low during night hours and early mornings and hits its maximum in the late afternoon. If electric loads could be shifted from peak hours (e.g., late afternoon) to off-peak hours (e.g., late morning), not only would building operation costs decrease, the need to run peaker plants, which typically use more fossil fuels than non-peaker plants, would also decrease. Thus, shifting electricity consumption from peak to off-peak hours promotes economic and environmental savings. This paper focuses on using statistical techniques to identify the most effective operational peak load shifting strategies that are feasible for residential buildings and discusses the advantages of such techniques in terms of peak energy savings .and residential electricity cost savings

کلمات کلیدی:
Energy modeling, Precooling, Peak load, Residential building