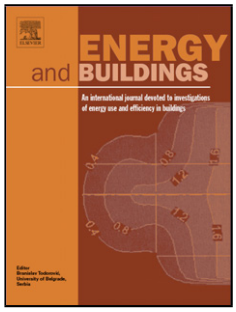

Title: Design and implementation of a real time demand side management under intermittent primary energy source conditions with a PV-Battery backup system

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Highlights

- A real time load management is developed to control unpredictable residential loads
- The control prevents the occurrence of power cut-off during grid energy blackouts
- The developed control is implemented on an ARM Cortex-A9 processor of the ZYNQ device
- An interrupt based implementation strategy is used to code the controller
- Implementation results show that the proposed control is flexible, fast, and reliable