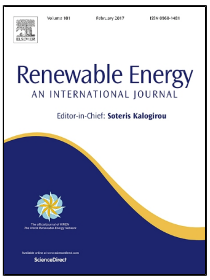
Accepted Manuscript



Energy Storage System for Self-Consumption of Photovoltaic Energy in Residential Zero Energy Buildings

Filomeno M. Vieira, Pedro S. Moura, Aníbal T. de Almeida

PII:	S0960-1481(16)31032-1
DOI:	10.1016/j.renene.2016.11.048
Reference:	RENE 8322
To appear in:	*Renewable Energy*
Received Date:	29 April 2016
Revised Date:	16 November 2016
Accepted Date:	21 November 2016

Please cite this article as: Filomeno M. Vieira, Pedro S. Moura, Aníbal T. de Almeida, Energy Storage System for Self-Consumption of Photovoltaic Energy in Residential Zero Energy Buildings, *Renewable Energy* (2016), doi: 10.1016/j.renene.2016.11.048

- An energy storage system for residential buildings with PV generation is proposed.
- A control system was designed to maximize the self-consumption and minimize costs.
- The energy sent and consumed from the grid is reduced in 76% and 78%, respectively.
- The energy bill is reduced in 87.2%.
- Due to the expected cost reductions, the system can be cost-effective before 2020.