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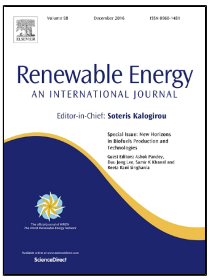

A Multi-Stage Smart Energy Management System Under Multiple Uncertainties A Data Mining Approach

M. Parvizimosaed, F. Farmani, H. Monsef

PII:	S0960-1481(16)30886-2
DOI:	10.1016/j.renene.2016.10.021
Reference:	RENE 8209
To appear in:	*Renewable Energy*
Received Date:	20 April 2015
Revised Date:	20 February 2016
Accepted Date:	11 October 2016

Please cite this article as: M. Parvizimosaed, F. Farmani, H. Monsef, A Multi-Stage Smart Energy Management System Under Multiple Uncertainties A Data Mining Approach, *Renewable Energy* (2016), doi: 10.1016/j.renene.2016.10.021

Highlights:

1-Introducing a new multi-stage SEMS architecture for optimal energy management in MGs considering various resources of uncertainties.

2-Performing various tasks such as data acquisition/mining/refinement, pattern recognition, learning parameters and offline/online decision making.

3-Some data mining algorithms have been applied to reduce the huge amount of raw data, recognize patterns for analysis and learn the given parameters.

4-For handling of uncertainties, using a stochastic scheduling approach, which includes the mean and variance of energy cost, is applied in the optimization process.