International Journal of Distributed Energy Resources
Volume 2 Number 3 (2006) Pages 245-259
Manuscript received: 4. January 2006

TECHNOLOGY &SCIENCE

INVESTIGATION OF REGULATORY, COMMERCIAL, ECONOMIC AND ENVIRONMENTAL ISSUES IN MICROGRIDS

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Keywords: microgrids, power distribution economics, electricity regulation

ABSTRACT

Concepts of MicroGrids are proposed to address primarily various issues related to integration of small-scale renewables and increased demand of reliable electricity supply. With an active management control approach and ability to operate in islanding mode, a cluster of micro generators, electricity storage and electrical loads can be operated within the MicroGrids framework to provide higher supply reliability to highly value customers. Solutions are required not only to make these concepts technologically feasible and safe to operate but also to be commercially viable and attractive, economically efficient and supported by electricity regulations. This paper summarises the results of investigations on various economic, regulatory and commercial issues faced by the development of MicroGrids in MICROGRIDS project. The potential economic benefits and contributions to environment from applications of MicroGrids technologies are also presented and described in this paper.