International Journal of Environmental Studies ›

Volume 69, 2012 - Issue 4

Articles

Distensible air accumulators as a means of adiabatic underwater compressed air energy storage

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Pages 566-577 | Published online: 22 Jun 2012

Cite this article https://doi.org/10.1080/00207233.2012.699360

Abstract

In the near future, the electricity industry is likely to face historically significant changes. The onset of distributed generation, micro and smart grids will change the entire structured industry. An influx of intermittent renewable generators will make traditional grid balancing notably more difficult. The novel concept of underwater compressed air energy storage is a potentially promising solution that may be used to meet these challenges, especially during the current period of electrical infrastructure renewal and modernisation. Early results from a Lake Ontario Pilot Study point to the potential viability of the concept.

Keywords:

CAES Electricity storage Smart grid Sustainability UWCAES

Acknowledgements

The research and development of the UWCAES system is in partnership with Hydrostor Inc., with funding from the Ontario Centres of Excellence and Sustainable Development Technology, Canada.

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