Accepted Manuscript

Ground heat storage beneath salt-gradient solar ponds under constant heat demand

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PII:	S0360-5442(17)32104-7
DOI:	10.1016/j.energy.2017.12.066
Reference:	EGY 12015
To appear in:	Energy
Received Date:	05 October 2017
Revised Date:	12 December 2017
Accepted Date:	13 December 2017

Please cite this article as: José Amigo, Francisco Suárez, Ground heat storage beneath saltgradient solar ponds under constant heat demand, *Energy* (2017), doi: 10.1016/j.energy. 2017.12.066

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HIGHLIGHTS

- Representation of the thermal dynamics in a solar pond and the ground beneath it.
- Algorithm for removing heat at a constant rate from a solar pond is proposed.
- Water dependent soil thermal properties are defined.
- Temperatures in a solar pond decrease exponentially as the water table is shallower.
- Insulating solar ponds exacerbate temperatures oscillations at the pond's bottom.

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