### Accepted Manuscript

Title: Reverse osmosis desalination plants in Brazil: A cost analysis using three different energy sources

Authors: Waleska Freitas da Silva, Ivan Felipe Silva dos Santos, Maria Claudia Costa de Oliveira Botan, Ana Paula Moni Silva, Regina Mambeli Barros

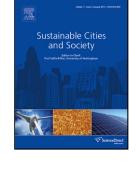
PII: S2210-6707(18)30781-9

DOI: https://doi.org/10.1016/j.scs.2018.08.030

Reference: SCS 1228

To appear in:

Received date: 25-4-2018 Revised date: 20-7-2018 Accepted date: 21-8-2018



Please cite this article as: da Silva WF, dos Santos IFS, de Oliveira Botan MCC, Moni Silva AP, Barros RM, Reverse osmosis desalination plants in Brazil: A cost analysis using three different energy sources, *Sustainable Cities and Society* (2018), https://doi.org/10.1016/j.scs.2018.08.030

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## ACCEPTED MANUSCRIPT

# Reverse Osmosis Desalination Plants in Brazil: A Cost Analysis Using Three Different Energy Sources

Waleska Freitas da Silva<sup>1</sup>, Ivan Felipe Silva dos Santos<sup>2</sup>, Maria Claudia Costa de Oliveira Botan<sup>3</sup>,

Ana Paula Moni Silva<sup>4</sup> and Regina Mambeli Barros<sup>5</sup>

- <sup>1</sup> Natural Resources Institute. Federal University of Itajubá (UNIFEI MG). Email: waleskafs@hotmail.com.
- <sup>2</sup> Natural Resources Institute. Federal University of Itajubá (UNIFEI MG). GEER Renewable Energy Group. Email: ivanfelipedeice@hotmail.com.
- <sup>3</sup> Natural Resources Institute. Federal University of Itajubá (UNIFEI MG). GEER Renewable Energy Group. Email: <a href="maclau\_oliveira@hotmail.com">maclau\_oliveira@hotmail.com</a>.
- <sup>4</sup> Natural Resources Institute. Federal University of Itajubá (UNIFEI MG). Email: anamoni@unifei.edu.br.
- <sup>5</sup> Natural Resources Institute. Federal University of Itajubá (UNIFEI MG). GEER Renewable Energy Group. Email: <a href="mailto:remambeli@hotmail.com">remambeli@hotmail.com</a>.

#### **Highlights**

- The Brazilian water supply panorama was analyzed;
- The main technologies of desalination were reviewed;
- Desalination plant parameters were calculated for many population scenarios
- Reverse osmosis desalination costs were evaluated for 3 energy sources in Brazil;
- A discussion considering the results and the Brazilian water scenario was conducted;

#### Download English Version:

# https://daneshyari.com/en/article/10132152

Download Persian Version:

https://daneshyari.com/article/10132152

<u>Daneshyari.com</u>