Scientific Research Open Access



Conferences

Search Keywords, Title, Author, ISBN, ISSN

LCE> Vol.1 No.2, December 2010

OPEN ACCESS

Home

Environmental Sustainability Assessment of Electricity From Fossil Fuel Combustion: Carbon Footprint

Books

Home > Journal > Business & Economics | Earth & Environmental Sciences > LCE

PDF (Size: 254KB) PP. 86-91 DOI : 10.4236/lce.2010.12011

Journals

Author(s)

Jorge Cristóbal, Jonathan Albo, Angel Irabien

ABSTRACT

Emissions of greenhouse gases from electricity production should be reduced since climate change has became a big concern in developed countries. Carbon footprint is used as environmental index measuring the emissions that have effect on global warming and shows that secondary footprint has an important relevance in the final emission factor. To achieve sustainability in electricity production is required the consideration and evaluation of all relevant environ- mental impacts at the same time. Reduction in CO2 emissions is justified since clean combustion is achieved and global warming is the main contributor to global impacts.

KEYWORDS

Carbon Footprint, Environmental Sustainability Assessment, Fossil Fuels, Combustion, Environmental Burden

Cite this paper

J. Cristóbal, J. Albo and A. Irabien, "Environmental Sustainability Assessment of Electricity From Fossil Fuel Combustion: Carbon Footprint," Low Carbon Economy, Vol. 1 No. 2, 2010, pp. 86-91. doi: 10.4236/lce.2010.12011.

References

- A. Korre, Z. Nie and S. Durucan, " Life Cycle Modeling of Fossil Fuel Power Generation with Post-[1] combustion CO2 Cap-ture," International Journal of Greenhouse Gas Control, 2010, pp. 289- 300.
- CEC-Commission of the European Com-munities, Green Paper: A European Strategy for [2] Sustainable, Competitive and Secure Energy, Brussels, 2006.
- IEA- International Energy Agency, Key world energy sta- tistics 2009. [3]
- [4] A. Jorgensen, M. Finkbeiner, M. S. Jorgensen and M. Z. Hauschild, " Defining the Baseline in Social Life Cycle Assessment," International Journal of Life Cycle Assess, 2010, pp. 376-384.
- [5] T. H. Oh and S. C. Chua, " Energy Efficiency and Carbon Trading Potential in Malasya," Renewable and sustainable energy reviews, 2010, pp. 2095-2103.
- ISO, " ISO 14040-Environmental Manage-ment- Life Cycle Assessment- Principle and Framework," [6] Ge-neva, Switzerland: International Standards Organization, 2006.
- L. Gagnon, C. Bélanger and Y. Uchiyama, " Life-cycle Assessment of Electricity Generation Options: [7] The Status of Research in Year 2001," Energy Policy, 2002, pp. 1267-1278.
- Ecoinvent Data v2.1, Swiss Centre for Life Cycle Inven- tories, 2009. [8]
- K. Plassman, A. Norton, N. Attarzadeh, M. P. Jensen, P. Brenton and G. Edwards-Jones, [9] " Methodological Com- plexities of Product Carbon Footprinting: A Sensitivity Analysis of Key Variables in a Developing Country Context," Environmental science and policy. doi:10.1016/j.envsci. 2010.03.013.
- [10] A. Evans, V. Strezov and T. J. Evans, " Assessment of Sustainability Indicators for Renewable Energy

| Open Special Issues |
|----------------------------|
| Published Special Issues |
| Special Issues Guideline |
| LCE Subscription |
| Most popular papers in LCE |
| About LCE News |
| Frequently Asked Questions |
| Recommend to Peers |
| Recommend to Library |
| Contact Us |
| Downloads: 49,705 |
| Visits: 140,856 |

Sponsors, Associates, and Links >>

Technologies," Renewable and sustainable energy reviews, 2009, pp. 1082-1088.

- [11] CNE-Resolución MINECO 15/07/02 y 15/12/08. Datos Enero-Julio 2009 (in Spanish).
- [12] B. Praetorius and K. Schumacher, " Greenhouse Gas Mitigation in a Carbon Constrained World: The Role of Carbon Capture and Storage," Energy Policy, doi:10.1016/j.enpol.2009.07.018.
- [13] IChemE-Institution of Chemical Engineers, " The Sustainability Metrics, Institution of Chemical Engineers Sustainable Development Progress Metrics recommended for use in the Process Industries," 2002.
- [14] E-PRTR Regulation: Regulation (EC) No 166/2006 of the European Parliament and of the Council concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC.

Home | About SCIRP | Sitemap | Contact Us Copyright © 2006-2013 Scientific Research Publishing Inc. All rights reserved.