



CommONEnergy

DELIVERABLE 7.5

Peer-Reviewed Journal Publications

European Commission
DG Research and Innovation

SP1 - Cooperation

Collaborative project

Large-scale integrating project

FP7-2013-NMP-ENV-EeB

GRANT AGREEMENT No. 608678

CommONEnergy

Re-conceptualize shopping malls from consumerism to energy conservation



FP7 European Union Funding
for Research & Innovation



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Technical References

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Project Title	Re-conceptualize shopping malls from consumerism to energy conservation
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Executive Summary

The present document is gathering all peer-reviewed journal publications submitted by the CommONEnergy project partners, included in journals, books or other kind of publications. They are all in English.

The CommONEnergy project involves 23 partners from across sectors: industry, research and academia, retail actors, not all able to / used to write scientific papers / publications. The present document therefore references only very few peer-reviewed publications in journals, though on very different topics.

In order to not repete ourselves, it was decided to list in this publication only the publications in journals **not linked** to conferences. All papers written for or following the abstract submission to a conference are available in another report. For a full overview of all peer-reviewed publications, this deliverable should be completed with deliverable 7.4 Conference Proceedings, available on www.commonenergyproject.eu.

Introduction

The present document includes all peer-reviewed publications included in journals or books, on topics varying from social aspects of shopping centres, ventilation, refrigeration and other more “technological” aspects, modelling, cost-optimality and more.

In order to not repete ourselves, it was decided to list in this publication only the publications in journals **not linked** to conferences. For a full overview of all peer-reviewed publications, this deliverable should be completed with deliverable 7.4 Conference Proceedings, available on www.commonenergyproject.eu.

The publications with detailed information

Title	The Influence of User Behaviour on Energy Use in European Shopping Centres
Author(s)	Woods Ruth, Skeie Kristian Stenerud, Haase Matthias (SINTEF)
Journal	Sustainable Development
Publisher	Wiley Online Library
Date of publication	January/February 2017 (First published: 31 March 2016)
Volume / Issue	Volume 25, Issue 1
Relevant pages	11-24
ISSN / eISSN / ISBN	ISSN 0968-0802
Link	https://goo.gl/YvxUuU http://onlinelibrary.wiley.com/doi/10.1002/sd.1638/full
Is it open access?	Yes
Abstract	European society spends increasing amounts of time in shopping centres. There is an urgent need to reduce energy use and to provide stakeholders with the tools to develop the next generation of sustainable shopping centres. The intention here is to identify how user behaviour, in particular owners, managers, tenants and customers, influences energy performance in European shopping centres. The causes of energy use are often primarily technical; but user behaviour influences whether actions to reduce energy use are implemented and how effective the actions are. Customers are not interested in energy use or sustainability issues when doing their shopping, and this influences how shopping centres act with regard to energy use reductions. This has implications for their sustainability and suggests a design potential in shopping centres, one which lies in considering social and behavioural issues alongside the implementation of more technical aspects associated with energy use in retail environments.
Proceedings of conference or peer-reviewed journal	Articles in international scholarly journals

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publication?	
Title	Ventilative cooling in shopping centers' retrofit
Author(s)	Annamaria Belleri, Marta Avantaggiato (EURAC)
Journal	The REHVA European HVAC Journal, 01/2016
Publisher	REHVA
Date of publication	01/2016
Volume / Issue	Volume 53, issue 1
Relevant pages	21-25
ISSN / eISSN / ISBN	ISSN 1307 3729
Link	Link
Is it open access?	Yes
Abstract	Because of the customers' need of best possible comfort condition and satisfaction, shopping centers are conditioned by means of basic HVAC systems, often without considering the potential of natural ventilation to reduce energy consumption related to cooling and ventilation. Within the European project CommONEnergy, EURAC researchers are dealing with ventilative cooling strategies as retrofit solutions for shopping centers.
Proceedings of conference or peer-reviewed journal publication?	Peer-reviewed journal publication

Title	Modelling commercial refrigeration systems coupled with water storage to improve energy efficiency and perform heat recovery
Author(s)	Alessio Polzot, Paola D'Agaro, Paride Gullo, Giovanni, Cortella (UNIUD)
Journal	International Journal of Refrigeration
Publisher	Elsevier
Date of publication	2016
Volume / Issue	Volume 69 (2016), IIF-IIR
Relevant pages	313–323
ISSN / eISSN / ISBN	ISSN: 0140-7007
Link	http://www.sciencedirect.com/science/article/pii/S0140700716301748
Is it open access?	No
Abstract	A basic CO2 transcritical/subcritical commercial refrigeration system is considered, applied to cold rooms and display cabinets in a supermarket. Subcooling of the refrigerant or heat recovery from condensation can be performed, taking advantage of a large fire prevention water tank. The whole refrigeration system is modelled in a TRNSYS environment, taking into account the hourly weather data

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	<p>and calculating the hourly cooling load demand from display cabinets and cold rooms equipment. New types have been written to describe display cabinets and cold rooms, CO2 refrigerating units and a particular water store.</p> <p>Simulations consider a simple double compression cycle with liquid receiver, and other options among which an auxiliary compressor. Results show that CO2 plants are feasible and energetically acceptable in mild climates, provided that improvements to standard cycle are adopted. Furthermore, heat recovery can be effectively performed through the employment of a heat storage.</p>
Proceedings of conference or peer-reviewed journal publication?	Peer-reviewed journal publication

Title	The Influence of User Behaviour on Energy Use in European Shopping Centres
Author(s)	Ruth Woods, Kristian S. Skeie, Matthias Haase
Journal	Sustainable Development
Publisher	Wiley online library
Date of publication	March 2016
Volume / Issue	Vol 25, issue 1
Relevant pages	11-24
ISSN / eISSN / ISBN	DOI: 10.1002/sd.1638, Online ISSN: 1099-1719
Link	http://onlinelibrary.wiley.com/doi/10.1002/sd.1638/abstract
Is it open access?	Yes
Abstract	<p>European society spends increasing amounts of time in shopping centres. There is an urgent need to reduce energy use and to provide stakeholders with the tools to develop the next generation of sustainable shopping centres. The intention here is to identify how user behaviour, in particular owners, managers, tenants and customers, influences energy performance in European shopping centres. The causes of energy use are often primarily technical; but user behaviour influences whether actions to reduce energy use are implemented and how effective the actions are. Customers are not interested in energy use or sustainability issues when doing their shopping, and this influences how shopping centres act with regard to energy use reductions. This has implications for their sustainability and suggests a design potential in shopping centres, one which lies in considering social and behavioural issues alongside the implementation of more technical aspects associated with energy use in retail environments.</p>
Proceedings of	Journal publication, Based on a paper for the International Building

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conference or peer-reviewed journal publication?	Physics Conference (IBPC) 2015
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Title	CommONEnergy: an Integrated Modelling Environment for shopping malls
Author(s)	Annamaria Belleri, Chiara Dipasquale and Roberto Lollini, (EURAC) Matthias Haase (SINTEF)
Journal	IBPSA News
Publisher	IBPSA
Date of publication	April 2015
Volume / Issue	Volume 25, 1
Relevant pages	16-19
ISSN / eISSN / ISBN	ISSN 1993-8586
Link	http://www.ibpsa.org/Newsletter/IBPSANews-25-1.pdf
Is it open access?	Yes
Abstract	The planning of a high-quality retrofit requires several different aspects to be taken into consideration simultaneously: climate and location, architecture, and the selection of HVAC, lighting, refrigeration, renewable energy sources and storage systems. Due to the variety of systems present in shopping malls, their retrofitting needs a decision process based on a comprehensive approach which considers the actual energy performance of the building, climate, management and user behaviour.
Proceedings of conference or peer-reviewed journal publication?	Journal publication

Title	The Current Energy Performance of Commercial Buildings in Northern Climates – Europe 6
Author(s)	Dan Staniaszek (BPIE)
Journal	Sustainable Retrofitting of Commercial Buildings
Publisher	Routledge
Date of publication	2015
Volume / Issue	NA
Relevant pages	74-91
ISSN / eISSN / ISBN	ISBN 9781315765877
Link	https://www.routledge.com/Sustainable-Retrofitting-of-Commercial-Buildings-Cool-Climates/Burton/p/book/9780415834247
Is it open access?	No
Abstract	Whilst sustainability is already an important driver in the new

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	<p>building sector, this book explores how those involved in refurbishment of commercial building are moving this agenda forward. It includes chapters by developers, surveyors, cost consultants, architects, building physicists and other players, on the role they each can play in enabling refurbishment to be commercially, environmentally and socially sustainable. Case studies from northern climates show real examples of different building types, ages and uses and will demonstrate what action has been taken to create more sustainable buildings.</p>
<p>Proceedings of conference or peer-reviewed journal publication?</p>	<p>Book</p>

Conclusions

As mentioned in the introduction, this document should be screened together with the report “deliverable 7.4 Conference proceedings”, to get a full view of all papers published in journals, following conference participation or not.