

Accepted Manuscript

Title: A Retrospective on the Impact of Annex 40 and Annex 47 Research on the International State of Building Commissioning

Authors: Natascha Milesi Ferretti, Masato Miyata, Oliver Baumann



PII: S0378-7788(17)31636-5
DOI: <http://dx.doi.org/10.1016/j.enbuild.2017.08.031>
Reference: ENB 7860

To appear in: *ENB*

Received date: 12-5-2017
Revised date: 14-8-2017
Accepted date: 14-8-2017

Please cite this article as: Natascha Milesi Ferretti, Masato Miyata, Oliver Baumann, A Retrospective on the Impact of Annex 40 and Annex 47 Research on the International State of Building Commissioning, Energy and Buildings <http://dx.doi.org/10.1016/j.enbuild.2017.08.031>

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.

A Retrospective on the Impact of Annex 40 and Annex 47 Research on the International State of Building Commissioning

Natascha Milesi Ferretti¹, Masato Miyata², Oliver Baumann³

¹NIST–National Institute of Standards and Technology, Engineering Laboratory, Energy and Environment Division, Mechanical Systems and Controls Group, 100 Bureau Drive, Gaithersburg MD, 20899, USA

²National Institute for Land and Infrastructure Management, Japan

³Baumann Consulting, USA/Germany

Abstract

The need for improved building performance is global and has led to numerous international collaborations. Since 2000, the International Energy Agency (IEA) Energy in Buildings and Communities Program (EBC, formerly *ECBCS*) has completed two building commissioning research annexes, recognizing the role of the building commissioning process in meeting energy conservation goals. Annex 40 established a common understanding of the commissioning process and initiated research that became the basis for the development of national guidelines and automated tools. Subsequently, Annex 47 focused on advancing the use of technology in commissioning and the work developed and ideas exchanged in Annex 47 were foundational in enabling numerous positive impacts internationally. This paper describes research results from these annexes¹ and discusses the impact of both in four areas: 1) commissioning support software tools, 2) cost-benefit methodology, 3) guidelines and standards, and 4) industry associations and

¹ Certain commercial entities, equipment, or materials may be identified in this document in order to describe an experimental procedure or concept adequately. Such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology, nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

Download English Version:

<https://daneshyari.com/en/article/6729153>

Download Persian Version:

<https://daneshyari.com/article/6729153>

[Daneshyari.com](https://daneshyari.com)