



## News from Annex 47

*The Executive Committee of the Energy Conservation in Buildings and Community Systems (ECBCS) program established a new international research project (annex) in June 2005 called Cost-Effective Commissioning for Existing and Low Energy Buildings.*

*The goal of Annex 47 is to enable the effective commissioning of existing and future buildings in order to improve their operating performance. The commissioning techniques developed through this research will help transition the industry from the intuitive approach that is currently employed in the operation of buildings to more systematic operation that focuses on achieving significant energy savings. The Annex will also exchange information on commissioning practices in different countries and disseminate relevant information to national practitioners.*

*The kick-off meeting was held in October 2005 at the Czech Technical University in Prague and established the framework for the workplan. In total, 33 experts from 13 countries were in attendance. The second planning-phase meeting was held in April 2006, in Trondheim, Norway, with 28 people representing 12 countries and 20 organizations participating. Following the meeting, the organizers from the Norwegian University of Science and Technology held a national seminar for exchange of information between Annex 47 participants and Norwegian experts. The next meeting will be held in November 2006 in conjunction with International Conference for Enhanced Building Operations in Shenzhen, China.*

*This newsletter gives an overview of the Annex progress at the end of the planning phase, highlighting advances in developing a cost-benefit methodology and database.*



## Background

Commissioning methods and tools are required to ensure that advanced components and systems reach their technical potential and operate efficiently. Likewise, they should strive to improve the energy efficiency of existing conventional and advanced buildings beyond the original design intent.

The objectives of Annex 47 are to:

- develop methods and tools to address advanced systems and low energy buildings, utilizing design data and the buildings' own systems in commissioning
- automate the commissioning process to the extent practicable
- develop methodologies and tools to improve the operation of buildings in use
- quantify and improve the costs and benefits of commissioning

The detailed plan for the Annex working phase is available for review. National Interest Groups have been established in many of the participating countries as a means to involve stakeholders and share research results. If you have interest in getting involved, you are encouraged to do so.

## Initial Commissioning

The first four in a series of functional tests have been developed for non-conventional systems. These include tests for:

- Radiant slabs for heating
- Under-floor air distribution plenum pressure
- Demand-controlled ventilation
- Building pressurization/envelope leakage

Work to address building-level testing and additional system-level tests for heating/cooling, ventilation, and lighting systems and components is ongoing. Draft functional tests will be available through the National Interest Groups.

## Cost-Benefit Methodology

Annex 47 is embarking on an ambitious project to document the energy savings and non-energy benefits of commissioning. This international data collection effort is the first of its kind – help us make it a success! The data and case studies that result from this project will be used to demonstrate the cost-effectiveness of commissioning to building owners and to assist in government policy-making.

## Contribute to the Commissioning Cost-Benefit Data Collection Project

We aim to collect data on 30 projects this year - we invite you to submit your project data by filling out a survey form. The electronic form is clear and concise, featuring drop-down menus and detailed instructions. There are two surveys to choose from:

- Short form: takes less than **2 hours** to complete and gathers only limited data
- Long form: takes **4 hours to 8 hours** to complete and gathers more detailed data

Data fields include:

- Project information
- Technical information
- Commissioning cost data
- Energy benefit data
- Non-energy benefit data

<b>Commissioning Data Collection Form</b> <small>IEA Annex 47 Version 1.0 March 2006</small>			
	Notes	Project Data	Units
<b>CURRENCY AND UNITS</b>			
Currency		EUR	
Units			
Electric consumption		Kilowatt-hour (kWh)	
Electric demand		Kilowatt (kW)	
Fuel		Other (specify)	
District chilled water			
District hot water			
District steam			
Water		Liters	
Floor area		Square meters	
<b>PROJECT INFORMATION</b>			
Name of person completing form			
Contact information of person completing form: Phone			
Contact information of person completing form: E-mail			
Name of Commissioning Provider			
Name of building/project		Gebhard-Mueller-Schule	
Project location			
City		Biberach	
State			
Country		Germany	
Year constructed		2003	
Project type: new (Cx) or existing building (RCx)?		Cx: new construction	
Year Cx project completed	Cx only	2006	
Was the building previously commissioned?	RCx only		

The survey form is available for download at: <http://www.iea-annex47.org/>

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