

What **could be saved?**

Savings of up to 33% in a building's total electrical energy use – often for little capital outlay.

Annual energy savings around 9% - 15% on average.

Projected annual electrical energy savings across the EU Member States are 0.3 to 5% of its total annual primary energy use.

Projected **annual electrical cost savings between €1,400M – €60,000M**, based on achieved savings in operational buildings.

Time – staff resources, time spent investing in the wrong areas, quicker reduction of unnecessary resource use.

“Project Overview”

at www.iservcmb.info/results for more detail.

Have these **savings** been **checked?**

The project **concurrently measured Indoor Air Quality in a sample of 62 systems across Europe and Physically Inspected 64 iSERVcmb HVAC systems.**

These tests showed that **individual system findings from the iSERVcmb process generally reflected the observations from the Inspections, and the IAQ measurements did not reveal problems concerning Indoor Air Quality being achieved, based on currently accepted IAQ standards.**

“Indoor Air Quality” and “Physical Inspections”

at www.iservcmb.info/results for more detail.

What do the **Professional Associations** say?

“The iSERV data entry spreadsheet is an invaluable tool for gaining an overall understanding of the HVAC system described and for collating information essential for Inspections.”

Hywel Davies, CIBSE

“iSERVcmb will change the guidelines on achieving energy efficiency in HVAC systems.”

Olli Seppänen, REHVA

“The reports produced within the iSERVcmb will be a useful information regarding real energy use of HVAC&R products.”

Sylvain Courtey, Eurovent Certita Certification

Where can I **find out more?**

Cardiff University
Ian Knight – Co-ordinator
knight@cf.ac.uk

Intelligent Energy – Europe (IEE) SAVE
Project
IEE/10/272

May 7th 2011 to May 6th 2014

Project results:
<http://www.iservcmb.info/results>

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HOW ENERGY EFFICIENT ARE YOU REALLY?



PROJECT

www.iservcmb.info



INSPECTION OF HVAC SYSTEMS THROUGH
CONTINUOUS MONITORING AND BENCHMARKING

Common format to allow comparison between buildings and systems throughout Europe

Physical asset descriptions allow actions to be focussed

Understand what connects to what

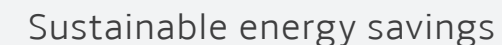
“iSERVcmb is the independent evidence which can sort out the wheat from the chaff.”

“The iSERVcmb database provides a good first step on the road to help ensure healthy sustainable buildings for the next generations of people working in our city based economies.”

How much **energy** and **power** should my building services systems use?

Measured figures for operational energy use and power demands from EU buildings and systems

Better control



The diagram illustrates the energy flow in a building system. On the left, an 'Incoming Meter' at the top and five individual 'Meter' units (Meter 1 to Meter 5) are connected to a vertical busbar. From this busbar, red lines lead to 'Chillers', 'CHW pumps', 'HW pumps', 'AHU 1', 'AHU 2', and 'Boilers'. Blue lines connect these components to two dashed boxes representing 'HVAC System 1' and 'HVAC System 2'. 'HVAC System 1' is associated with the text 'Small power and lighting' and supplies three rooms (Room 1, Room 2, Room 3) via green lines. 'HVAC System 2' supplies two rooms (Room 4, Room 5) via blue lines. A note states: 'NB: AN HVAC system is a collection of components'.

“Power and Energy Benchmarks”

Average Annual kWh per m2

Year to end of month shown

Benchmarks are for: Fire Control Panel, HVAC, Lifts, Lighting, Small Power

- Needs Checking
- Average
- Good

iSERV

at www.iservcmb.info/results for more detail

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