

Welcome to National Energy Efficiency Conference 2018

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EBC TCP Member Countries:

Australia, Austria, Belgium, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, United States of America (24 as of November 2018)



At the 81th ExCo Meeting in London June 2017, Photo by Randy Martin

National Energy Efficiency Conference 2018 in Sydney (19-20 November)

- In 1977 the International Energy Agency has established an Implementing Agreement on Energy in Buildings and Communities (EBC TCP-formerly known as ECBCS).
- 62 completed projects (Annexes)
- 18 ongoing projects (Annexes)
- ExCo Committee Meets in June and November every year
 - Sydney meeting in November 2016 with NEEC 2016
 - Wellington meeting to be held on 21-23 November 2018
- Energy Efficiency Council Inc. and EBC TCP exchanged MOU to collaborate for National Energy Efficiency Conference 2018.
- More than 10 experts joining from EBC TCP

International Energy Agency

Strategic Plan 2014 – 2019

Energy in Buildings and Communities Programme

October 2013



EBC is a programme of the International Energy Agency (IEA)

High-priority Themes (2014-2019)

1. Integrated planning and building design
2. Building energy systems
3. Building envelope
4. Community-scale methods
5. Real building energy use

For these 5 themes, 14 Annexes were completed (or plan to be completed) during 2014-2019.

Completed Annexes during 2014-2019

Annex 52 Towards Net **Zero Energy** Solar Buildings

Annex 54 Integration of **Microgeneration** and Other Energy Technologies in Buildings

Annex 55 Reliability of Energy Efficient Building **Retrofitting** – Probability Assessment of Performance and Cost

Annex 56 Cost Effective Energy and CO₂ Emissions Optimization in Building **Renovation**

Annex 57 Evaluation of **Embodied Energy** and Carbon Dioxide Equivalent Emissions for Building Construction

Annex 58 Reliable Building Energy Performance Characterization Based on **Full Scale Dynamic Measurement**

Annex 59 **High Temperature Cooling and Low Temperature Heating** in Buildings

Annex 60 New Generation **Computational Tools** for Building and Community Energy Systems

Annex 61 Business and Technical Concepts for **Deep Energy Retrofit** of Public Buildings

Annex 62 **Ventilative Cooling**

Annex 63 Implementation of **Energy Strategies in Communities**

Annex 64 LowEx Communities – Optimised Performance of Energy Supply Systems with **Exergy Principles**

Annex 65 Long-term Performance of **Super-insulating Materials** in Building Components and Systems

Annex 66 Definition and Simulation of **Occupant Behaviour** in Buildings

EBC NEWS

Issue 64 | November 2016

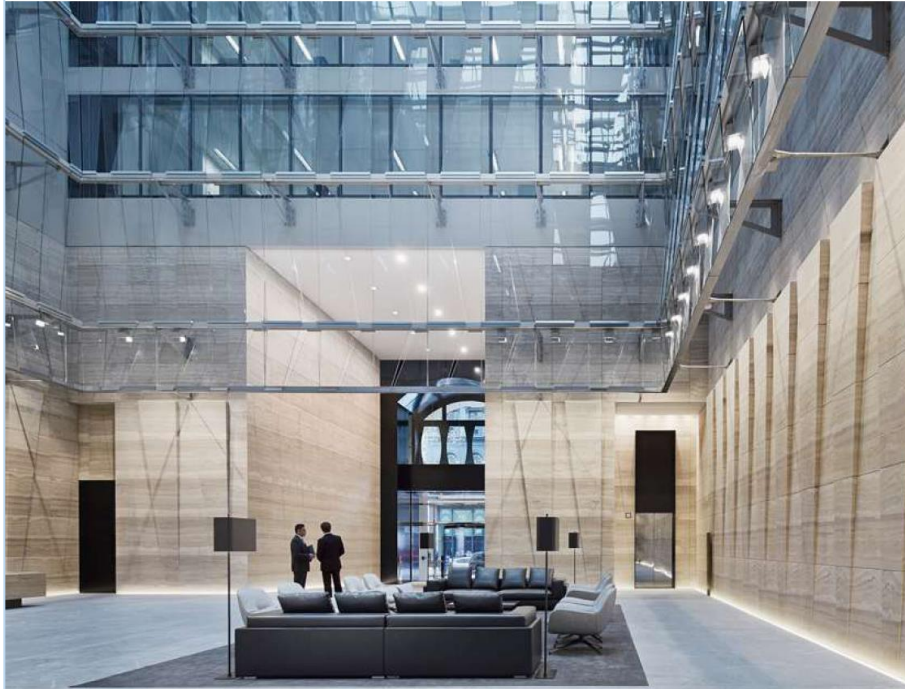
03 BENCHMARKING
BENEFITS AUSTRALIA'S
BUILDINGS

07 VENTILATIVE COOLING
STATE-OF-THE-ART

09 IMPLEMENTATION OF
ENERGY STRATEGIES
IN COMMUNITIES

11 OPTIMISED
PERFORMANCE OF
ENERGY SUPPLY SYSTEMS

13 OCCUPANT
BEHAVIOUR
MODELLING TOOLS



EBC is a Technology Collaboration Programme of the International Energy Agency (IEA)



Benchmarking Benefits Australia's Buildings

Stefan Preuss

Government and industry in Australia are creating an energy efficient built environment, founded on high profile benchmarking schemes and delivered within a collaborative culture.

Benchmarking, innovative procurement and market power

Organisations requiring office space such as governments and larger businesses can gain market power by renting rather than owning much of their accommodation. Australian State Governments and businesses have been taking advantage of this within the commercial office sector to deliver more sustainable

When seeking and business significant effectively construct benchmark competent of reporting companies sustainable feature d which co tenants ar quality ab However, i and Loca approach setting st energy eff commercial property and construction industry and the impact of many sustainable community

been more instrumental than the Federal Government in pushing for higher standards and for more ambitious pathways for delivering energy efficient and sustainable buildings. For this to become a reality, energy and environmental benchmarking has been essential. And two such schemes have delivered this in Australia: The National Australian Built Environment Rating System (NABERS) and Green Star, a holistic rating system for sustainable buildings.

Green Star and NABERS have been successfully applied to a great diversity of exemplar buildings, ranging from the iconic world heritage Sydney Opera House (rated '4 Stars' under Green Star 'performance') to 'Pixel', the highest building in the world under the Green Star and US LEED schemes at the time. The latter has been documented as a case study in EBC's international research and development (R&D) project 'Annex 52: Towards Net Zero Energy Solar Buildings'.

Deliverables and more about EBC TCP

<http://iea-ebc.org/>

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Thank you
for your attention.

HVAC system with VAV under
full-scale experiment at BRI

