

Joining the EBC Programme

Overview

The International Energy Agency's (IEA) Energy in Buildings and Communities (EBC) Programme carries out research and development activities towards near-zero energy use in and carbon dioxide emissions from buildings and community energy systems. The R&D activities focus on the integration of energy-efficient and sustainable technologies into healthy buildings and communities. The EBC projects and activities have produced long-lasting decision-making tools; integrated systems technologies, and seminars / conference proceedings. EBC, in addition to community energy systems, covers several types of buildings: residential, commercial and industrial, healthcare, educational, offices, multi-family and single-family, high and low-rise. Many technical aspects are studied including thermodynamics, occupant behaviour, ventilation and indoor air quality, lighting, HVAC, building envelope, commissioning, community energy systems and more. Several research threads have been taken up and advanced via successive projects, such as moisture in buildings, local energy planning, robust approaches to thermal modelling, application of low-exergy solutions, and effective integration of renewable energy technologies.

This extensive research output is maintained by a membership of 24 countries: Australia, Austria, Belgium, Canada, P.R. China, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Republic of Korea, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, UK and USA. This extensive community includes researchers, from building research institutes and universities, and industry including consultancies, contractors and manufacturers.

EBC was founded in 1977 through a legal contract now known as the 'Implementing Agreement for a Programme of Research and Development on Energy in Buildings and Communities'. This is one of the largest Technology Collaboration Programmes (TCPs) established by the IEA, under its Framework for International Energy Technology Co-operation - organisations that become signatories to an IEA Implementing Agreement are known as Contracting Parties.

Outreach and dissemination

EBC is now focussed on improving deployment of its project outcomes, including quantifying the impact of the Programme. The ongoing worldwide demand for knowledge about energy conservation in building and communities has been demonstrated, with currently a total of over 1.3 million downloads of project reports from the Programme website each year. Moreover, links with industry are well-established and enduring.

Benefits, rights and obligations for EBC Contracting Parties

The EBC TCP has established an equitable basis for the Programme to carry out joint research projects. This provides the commonly agreed general rights and obligations for Contracting Parties.

The largest benefits arising from participation in EBC are those gained by national programmes, such as leverage of R&D resources, technology transfer, training and capacity-building. Countries lacking knowledge can benefit from the experiences of those with more expertise, thereby avoiding duplicated research efforts. In particular, countries can most easily realise the benefits of participation if their own experts have taken part in projects and have assisted in producing deliverables taking into account their national requirements and priorities.

At an individual level, the Programme allows researchers funded by national programmes and industry to pool their collective expertise to produce high quality project outputs. By taking part in the projects, they create and reinforce their own technical networks, the benefits of which remain long after the particular project has formally ended. This does not happen quickly, but over the course of three to five years, these networks of expertise become established as excellent international channels of communication.

Many current and former researchers from EBC projects are often directly involved in formulating standards, regulations and codes and will use the knowledge gained in their work for EBC to inform and improve them. This indirect form of deployment can be one by which the Programme has a strong although less obvious impact.

An added benefit of participation is an increased awareness for experts of the current state of knowledge in other member countries. The EBC newsletter includes regular features on the energy profiles of member countries. The Executive Committee Technical Day, held twice each year, assists with exchange of knowledge between the Programme and the host country.

All member countries have the right to propose new projects, and each country then decides whether or not to participate on a case by case basis. Most EBC projects are carried out on a 'task shared' basis, in which participating organisations arrange for their own experts to take part. Certain projects are 'cost shared' in which participants contribute funding to achieve common objectives.

EBC operates a jointly controlled common fund that is used to support the secretariat, dissemination and outreach activities provided by the Executive Committee Support Services Unit (ESSU). All member countries are required to contribute annual fees to the common fund according to expenditure budgets agreed by the Executive Committee before the start of each financial year.

If a national government joins as a Contracting Party, it will have the rights and obligations of membership, for example, it must pay the annual fees for the common fund. If the government designates another entity to join, the designated entity will have the rights and obligations, for example, it will be responsible for paying the annual fees for that country. (If the designated entity were not to pay its fees, legally the Executive Committee could only seek payment from the designated entity, not from the government who designated it.)

How to Become an EBC Member Country

Participation in the EBC TCP is at the discretion of both the existing member countries and of the national government of a country interested in joining. However, there are usually few barriers to joining, aside from a commitment to actively pursue the goals of the Programme. The first step in the formal process is that the EBC Executive Committee (representatives from the member countries) invites the national government, or any entity designated by it, to become a Contracting Party to the EBC Implementing Agreement. There are then two scenarios:

- If the national government wishes to participate directly through one of its ministries, governmental agencies or bodies, they should send an official letter to the IEA Executive Director to that effect, or
- If the national government wishes for a different entity to participate, an official letter from the government designating that entity should be sent to the IEA Executive Director. The designated entity must also send an official letter of acceptance to the IEA Executive Director.

After an initial enquiry by a new interested country, it is usual for the EBC Executive Committee to invite representatives from that country to attend one or two meetings as observers. This allows informal discussions to take place to explain the anticipated benefits, rights and obligations of joining as well as to provide an introduction to the formalities.

Further information

EBC Secretariat: Malcolm Orme
Tel: +44 (0)121 262 1920 essu@iea-ebc.org

EBC Executive Committee Chair: Dr Eng Takao Sawachi
Tel: +81 29 864 2901 tsawachi@kenken.go.jp

To be kept informed about EBC activities, please visit www.iea-ebc.org/publications/ebc-news to sign up to the email list to be alerted when EBC News is published, or to download the latest edition.