

The Second Workshop for the Preparation Phase of IEA EBC Annex 85

Indirect Evaporative Cooling

Introduction

To meet the increasing cooling demand without increasing electricity and carbon emission, changing the mode of air conditioning is one important solution. This new Annex project aims to study the feasibility and provide the roadmap of using indirect evaporative cooling (IEC) technology in different dry regions of the world.

The draft Annex project proposal was approved as Annex 85 for a one-year preparation phase starting in July 2020. The project has defined four subtasks: subtask A, field study of existing IEC systems; subtask B, fundamental study of IEC processes and systems (including thermal analysis of processes, water consumption, electricity consumption and comparison with ordinary mechanical chiller systems); subtask C, internal heat and mass transfer processes study of IEC chillers and IEC air coolers; and subtask D, simulation design tool and guideline development of IEC systems. Six of the participating countries have performed ‘preliminary’ technology readiness assessment (TRA) of the four main technologies of the project.

The goal of this workshop is to exchange the current fundamental study and application of the IEC technology in each participating country, discuss the detailed work plan of this Annex, discuss set up of the communication platform for this Annex, such as the webpage under the IEA EBC and so on, and determine the possible sub-task leaders.

Form of Meeting:

Given the current global situation with the COVID-19 epidemics, the workshop will be held online. Detailed information for the time and access of online meeting will be provided later.

Organizer:

Building Energy Research Center, Tsinghua University

Xiaoyun Xie, Yi Jiang, Xudong Yang, Chaoyi Zhu, Yijie Liu.

Workshop Objectives:

- Exchange the developing situations of IEC technologies in each participating country.
- Further refine the main technologies and subtasks of the project.
- Discuss the work plan of this Annex, and the building of the communication platform for this Annex.
- Confirm participants for each subtask and discuss the possible subtask leaders.

Draft Agenda of the workshop

- Welcome and introduction (20 mins)
- Presentations from each participating country to introduce the current study and application of IEC technology in his/her country/region (10-15 mins for each presentation, 100 mins in total)
- Discussions, the work plan of this Annex, the building of the communication platform for this Annex, and the possible subtask leaders (50 mins)
- Summary and adjournment (10 mins)

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