



Circular Letter No.: 2019.157

Issue Date: 3 May 2019

Application: BEAM Plus ND Version 1.0 (with Corrigendum No. 1 incorporated)

Effective Date: 3 May 2019

### **EA 3 Energy Efficient Infrastructure**

1. The Circular Letter announces that the exclusion of the captioned credit has been revised as follows:

- Projects of residential use<sup>1</sup>; or
- Projects located within infill site<sup>2</sup>, where the project does not have the option for subscribing to a District Cooling System<sup>3</sup>.

2. The credit name for **part (a)** has been renamed as **Provision of District Cooling System** and the requirement has been clarified as follows:

2 credit points are awarded where the Site is connected or has the intention to connect to a District Cooling System that is readily available at the time of first assessment submission<sup>4</sup>.

3. The credit name for **part (b)** has been renamed as **District Cooling System Efficiency** and the requirement for the **normal credit** has been clarified as follows:

1 credit point is awarded if the Applicant can demonstrate that a target plant annual average COP of 4.7 or above at full utilisation can be achieved through a continuous monitoring of the plant efficiency.

4. The submittals required for the assessment under part (a) and part (b) of the credit has also been amended as follows:

a. Part (a): Provision of District Cooling System:

- i. Scale drawings showing the location(s) of the central chiller plant, the pipe routing of the district cooling system, associated district cooling system infrastructure and the connection to the proposed development.
- ii. Design report showing the following:
  - The total cooling load estimated for the development;
  - The required pipe connections;
  - The required number of heat exchangers to cater for the total cooling load of the development; and

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<sup>1</sup> Residential use includes residential flats, staff quarters, Government staff quarters, new territories exempted house, village house, villa, bungalow, town house, student-hostel, dormitory, youth hostel and elderly apartment.

<sup>2</sup> Infill site is defined as site that has been sited with buildings/structures within the past 5 years.

<sup>3</sup> District Cooling System (DCS) means a system in which chilled water is supplied from one or more central chiller plants to user buildings within the area served by the system through a network of pipes for air conditioning in the buildings.

<sup>4</sup> First assessment submission refers to the date when the initial assessment is formally accepted by BSL. For example, if the project has both PA and FA, then it would be the date when BSL formally accepts the project for PA submission. If the project has only FA, then it will be the date when BSL formally accepts the project for FA submission.

- The required number of chillers (*if the District Cooling System is controlled by the project proponent*).

b. Part (b): District Cooling System Efficiency:

- i. A letter of commitment signed by the representative of the District Cooling System committing the target District Cooling System overall plant annual average COP at full utilization and the chilled water operating condition of the District Cooling System.
  - ii. Scale drawings showing the location(s) of the central chiller plant, the pipe routing of the district cooling system, associated district cooling system infrastructure and the connection to the proposed development.
  - iii. Acknowledgement letter issued by the representative of the District Cooling System acknowledging that the development will provide the necessary infrastructures<sup>5</sup> to connect to the District Cooling System.
5. The configuration of the major District Cooling System in Hong Kong is provided in Appendix A of this Technical Circular. If a prescribed development is within the area served by the District Cooling System mentioned in Appendix A, the Applicant may adopt the specified configuration in Appendix A for the designed case in lieu of adopting the configuration obtained from the representative of the District Cooling System. Moreover, the submittal as required under paragraph 4(b)(i) may be exempted.
6. The Technical Review Committee will honour the District Cooling System configuration adopted at the time of the first assessment submission. Any amendments to the District Cooling System configuration made during the subsequent rounds of submission shall not be considered.



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Mr KM So  
Chairperson of Standards Sub-committee

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<sup>5</sup> Necessary infrastructures refer to the adequacy of heat exchanger, the adequacy of chiller water pipes and the provision of chilled water pump room in the development.



**Appendix A: Configuration of The Major District Cooling System (DCS) In Hong Kong**  
**(Last Updated: 3 May 2018)**

<b>Name of District Cooling System</b>	<b>Representative of the DCS</b>	<b>Target DCS Overall Plant Annual Average COP at Full Utilization #</b>	<b>Chilled Water Operating Condition</b>	<b>Date of Last Updated</b>
<a href="#">Kai Tak District Cooling System</a>	Electrical and Mechanical Services Department	5.5	<u>DCS Supply Side:</u> <ul style="list-style-type: none"><li>• Supply Temperature = 5°C ± 1°C</li><li>• Return Temperature = 13°C</li></ul> <u>Consumer Side</u> <ul style="list-style-type: none"><li>• Supply Temperature = 6°C ± 1°C</li><li>• Return Temperature = 14°C</li></ul>	3 May 2018

# “Target DCS Overall Plant Annual Average COP at Full Utilization” refers to the annual average COP of the DCS Plant, including cooling generation, heat rejection equipment, DCS chilled water pumps and condensing water pumps.