



مكتب التنظيم والرقابة لقطاع الكهرباء و المياه
RSB FOR ELECTRICITY & WATER

**REGULATORY AND SUPERVISORY BUREAU FOR THE
ELECTRICITY AND WATER SECTOR**

**REGULATIONS FOR DISTRICT COOLING PURSUANT TO
EXECUTIVE COUNCIL RESOLUTION (6) OF 2021**

RD09: CONNECTED LOAD

Version History

ISSUE NO.	MODIFICATION	ISSUED	APPROVED	DATE
0.9	First Issue for consultation	J. Grinnell	J. Grinnell	11-07-2023
0.91	Post consultation for RSB Board.	J. Grinnell	R. Alaileh	05-06-2024
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1. Definitions and Interpretation

Capitalised Terms not defined here shall have the meaning given to them in Executive Resolution 6 of 2021

Aggregate Installed Capacity - the total installed cooling capacity measured in TR or kW, of all FCUs and FAHUs in the building.

Authority - Dubai Municipality or any other entity in Dubai related to the implementation of the Dubai Building Code.

Billing Service Provider – the District Cooling Service Provider or Billing Agent that provides Billing Services to the units within a Building.

Contracted Load – the maximum load measured in TR or kW, that the District Cooling Service Provider agrees to make available to the Customer.

Cooling Service Agreement – a contractual agreement made, for the provision of chilled water to a Building or Buildings.

Cooled Space – the area measured in square metres, within a Building that is designed and equipped to be cooled or air-conditioned.

Design Load – the calculated load measured in TR or kW for the Building as approved by the relevant Authority in accordance with Dubai Building Code.

Developer – the Person that negotiates a Cooling Service Agreement with a District Cooling Service Provider.

District Cooling Service Provider – a company or establishment authorised by the RSB to provide District Cooling Services to Customers.

DSCE – means the Dubai Supreme Council of Energy.

Peak Demand – means the maximum cooling load measured in kW, at the connection between the District Cooling System and the Customer's system.

Resolution – means Executive Council Resolution 6 of 2021 Regulating the Provision of District Cooling Services in the Emirate of Dubai.

2. Scope and Objective

These regulations:

- a. have been issued pursuant to articles 4(a)4 and 9(6) of the Resolution.
- b. apply to any Person furnishing, or intending to furnish, District Cooling Services or Billing Services to Customers in the Emirate of Dubai.
- c. aim to:



- i. incentivize District Cooling Service Providers to guide Developers towards sensible estimates of cooling needs.
 - ii. encourage Developers to establish efficient Contracted Loads with District Cooling Service Providers.
 - iii. provide independent guidance for Developers that are considering entering into a Cooling Service Agreement with a District Cooling Service Provider.
- d. may be updated from time to time subject to the approval of the DSCE.

3. Diversity

- a. Estimates of the Building's diversity factor, measured as the ratio of expected Peak Demand to the Aggregate Installed Capacity, must be considered. The Building's diversity factor is used to account for the likelihood that not all cooling loads will be operating at their peak levels simultaneously. By considering the Building's diversity factor, the Developer can optimize the design and sizing of the secondary system and the Contracted Load. In determining the Building's diversity factor, it is the responsibility of the Developer to ensure that sufficient Contracted Load is allocated to the Building to meet its cooling requirements.
- b. The District Cooling Service Provider may assess the District Cooling System's diversity factor when designing or modifying the District Cooling System. When considering the District Cooling System's diversity factor, the District Cooling Service Provider must ensure there is sufficient installed capacity at the District Cooling Plant and District Cooling Network to meet the District Cooling System's requirements.
- c. Nothing in this regulation relieves the District Cooling Service Provider from its obligations to meet its Customers' cooling demands up to the Contracted Load.
- d. Billing Service Providers must ensure that any reductions to the Contracted Load resulting from the Building's diversity is shared on a pro-rated basis amongst the Building's units and common areas.

4. Obligations on District Cooling Service Providers

- a. Prior to agreeing a Contracted Load with a Developer, the District Cooling Service Provider must share its anonymized records of the ratio of Peak Demand to Aggregate Installed Capacity from all Buildings similar in use, size and construction with which it has an ongoing Cooling Service Agreement.
- b. The sharing of such experience by the District Cooling Service Provider does not constitute advice and in no way renders the District Cooling Service Provider liable for the appropriateness of the Contracted Load the Developer ultimately decides upon.
- c. The Contracted Load shall not exceed at anytime the Design Load approved by the Authority.

5. Seeking advice on the estimated load

- a. ASHRAE's District Cooling Guide (Second Edition) tables approximate unit area cooling loads to be expected for various urban centers. The guide provides low, medium and high estimates of unit cooling loads which appear comparable to well-performing systems in Dubai. Developers are advised to reference this guide when considering their cooling needs and to challenge their consultants, for example via third-party review, when the proposed design loads exceed these values.
- b. The RSB may from time to time, and with the permission of the Building owner(s), where necessary, publish information concerning the best performing Building's cooling load density with the aim of raising awareness of achievable cooling loads in Dubai.

6. Recording load discussions

The District Cooling Service Provider must keep a record of all written correspondence with the Developer concerning the Design Load and Contracted Load. Such correspondence must be provided to the RSB upon request. Any confidentiality agreement entered into between the District Cooling Service Provider and the Developer shall not prevent the provision of this information on request.

7. Reporting

The District Cooling Service Provider shall ensure, when entering into, or renewing Cooling Service Agreements, that it obtains the necessary cooled space data to provide to the RSB in its annual returns.