

Circular No : URA/PB/2024/04-DCG
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CIRCULAR TO PROFESSIONAL INSTITUTES

Who should know

Building Owners, Developers, Architects

Effective date

With immediate effect till 17 September 2029

GROSS FLOOR AREA (GFA) INCENTIVES TO ENCOURAGE ADOPTION OF DISTRICT COOLING SYSTEMS (DCS) AND CENTRALISED COOLING SYSTEMS (CCS)

1. The Urban Redevelopment Authority (URA) is introducing GFA incentives to encourage building owners to adopt DCS or CCS by either collaborating to establish new networks or tapping onto an existing network in their area.

Background

2. In a conventional in-building chiller plant (IBCP) system, a building will have its own cooling towers and chillers to support its cooling function. In comparison, a DCS centralises the chiller capacity in a single district-cooling plant typically located within a host building, to serve a network of connected buildings. A variation of this is a CCS, where chiller capacity is consolidated within chiller plants located in a few host buildings in the network. In both DCS and CCS, chilled water is distributed from the host building(s) to other buildings in the network (i.e. receiving buildings), eliminating the need for IBCPs in each building.
3. There are already existing DCS and CCS networks in areas such as Marina Bay, Punggol Digital District and Tengah. These systems offer several benefits, including space efficiency, capital and operational cost savings, all made possible by economies of scale from aggregating cooling demand.
4. To support more sustainable development, the new GFA incentives will apply to building owners who collaborate to establish new DCS/CCS networks or on-board their buildings onto an existing DCS/CCS network.

New GFA incentives

Bonus GFA for DCS/CCS-related mechanical and electrical (M&E) spaces

5. Host buildings in DCS/CCS networks need to set aside space for the district cooling plant and chiller plants respectively to serve the larger network.

Receiving buildings may also need supporting M&E spaces such as heat exchanger rooms.

6. Such M&E spaces needed to support the DCS/CCS network will be allowed as bonus Utility GFA, over and above the Master Plan allowable GFA for the site. The additional Utility GFA may attract Land Betterment Charge (LBC).
7. The DCS/CCS-related M&E spaces can also qualify for GFA exemption if the spaces fulfil the criteria of the prevailing M&E-related GFA exemption schemes.

GFA incentives for decommissioned IBCP spaces

8. Once an existing building carries out Additions & Alterations (A&A) works to tap onto a DCS/CCS network (as a receiving building), there is no need for the building to continue maintaining its own IBCP, which can then be decommissioned. The space that the IBCP is located on can then be repurposed to other uses, as part of the overall A&A works.
9. For existing buildings where the original IBCP space is computed as GFA, the owner can choose to convert the IBCP space to another use or decant the space to another part of the building¹, where feasible.
10. For existing buildings where the original IBCP space is exempted from GFA², bonus GFA equivalent to the size of the decommissioned IBCP space will be allowed over and above the Master Plan allowable GFA for the site. This is to allow the building owner to similarly repurpose the decommissioned IBCP space for other uses¹.
11. The proposed use of the bonus GFA or converted GFA will be subject to evaluation and should be in line with the planning intention for the site. Any LBC leviable will be computed based on its proposed use.

Eligibility for GFA incentives

12. Building owners who collaborate to establish new DCS/CCS networks or tap onto existing networks in their area can consider doing it as part of redevelopment or retrofitting plans for their buildings, while making use of the new GFA incentives.
13. For existing buildings that carry out A&A works to tap onto an existing network in their area, the application of the GFA incentives will be subject to the following criteria:

¹ Owners should first consider converting the decommissioned IBCP space to other uses in situ, as opposed to demolishing the floor slab of the IBCP space to decant the GFA / deploy the bonus GFA elsewhere within the development. Proposals to demolish the floor slab will be subject to evaluation, with justifications to be provided (e.g. whether there are constraints faced in retrofitting the original IBCP space for other uses).

² This refers to covered M&E spaces within the building envelope that were previously GFA exempted due to the relevant GFA exemption provisions (e.g. M&E space not exceeding 1.8m high, M&E space on basement carpark floors). This does not include open-to-sky M&E space (e.g. on the building rooftop).

- a) The building was originally approved at a time when there was no operational DCS/CCS network in the area.
 - b) If criterion (a) is not met, the building shall be a minimum age of 10 years³ (from date of original TOP).
14. In addition, the GFA incentives will not apply in the following cases:
- a) Existing buildings that are already connected and part of a DCS/CCS network (e.g. Marina Bay, Punggol Digital District, Tengah). The new GFA incentives will not retroactively apply to such buildings.
 - b) Where it is a mandatory requirement for a development to adopt DCS/CCS (e.g. as part of conditions of tender in Government Land Sales sites or conditions imposed as part of the Strategic Development Incentive scheme).
15. The additional GFA granted under the bonus GFA incentive scheme shall not form part of the development potential of the site upon redevelopment and will be subjected to the overall cap of 10% beyond the Master Plan allowable GFA for the site. Where necessary, URA may also approve the bonus GFA on temporary basis for monitoring purposes.
16. A summary of the new GFA incentives and submission requirements can be found in [Appendix 1](#) and [2](#) respectively.

Implementation

17. The new GFA incentives will apply with immediate effect, with the scheme valid for a period of five years.
18. I would appreciate it if you could convey the contents of this circular to the relevant members of your organisation. We have updated the same in the [Development Control Handbooks](#). You are advised to refer to these Handbooks for the most updated guidelines and procedures instead of referring to past circulars. For feedback or enquiries, please [email](#) us.

Thank you.

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URBAN REDEVELOPMENT AUTHORITY

³ This is the average lifespan of an IBCP system. The intent is to discourage the premature decommissioning of IBCP systems of newly completed buildings. Owners of newer buildings can instead consider switching to DCS as part of their planned IBCP replacement cycles (i.e. after 10 years).

Table 1: GFA incentives to encourage DCS/CCS adoption

Target Recipient	GFA Incentives
Both Host and Receiving Buildings	<ul style="list-style-type: none"> • To grant bonus Utility GFA for DCS/CCS-related M&E spaces (e.g. district cooling plant, chiller plant, heat exchanger room) • Bonus Utility GFA may attract LBC
Receiving Buildings (where A&A works are carried out to decommission existing IBCPs)	<p>If existing IBCP space is computed as GFA:</p> <ul style="list-style-type: none"> • Building owner may choose to convert the IBCP space in-situ to other uses, or decant the GFA from the decommissioned IBCP space to other uses in the development (subject to evaluation). • Proposed use of the converted or decanted GFA may attract LBC.
	<p>If existing IBCP space is exempted from GFA and within the building envelope:</p> <ul style="list-style-type: none"> • To grant bonus GFA, equivalent to the size of the decommissioned IBCP spaces • Building owner may choose to convert the IBCP space in-situ to other uses, or deploy the bonus GFA to other uses in the development (subject to evaluation) • Bonus GFA may attract LBC based on its proposed use

Submission Requirements

To facilitate URA’s assessment of proposals to apply for this DCS/CCS GFA incentive scheme, the following information / documents are to be furnished to URA as part of the development application (DA):

	DCS Proposals		CCS Proposals	
	Host development	Receiving development	Host development	Receiving development
Network plan	<p><u>For new Host developments:</u> Plan showing the overall proposed DCS/CCS network including the developments that are planned to be onboarded to the network</p> <p><u>For new Receiving developments:</u> Plan showing the existing DCS/CCS network that the development is intending to connect to.</p>			
Service provider	Supporting documents showing that a DCS/CCS service provider for network has been identified, with the new network or connection found to be feasible (e.g. feasibility study by service provider, service agreement)			
Provision of cooling-related M&E spaces	The necessary DCS/CCS cooling-related M&E spaces to be clearly reflected on the submission plans (see examples below)			
	<p><u>Examples:</u></p> <ul style="list-style-type: none"> a) Chiller plant room b) Electrical and other supporting infrastructure area (e.g. genset, transformer room) c) Thermal energy storage tanks d) Cooling towers (including make up water tank and 	<p><u>Examples:</u></p> <ul style="list-style-type: none"> a) Heat exchanger room 	<p><u>Examples:</u></p> <ul style="list-style-type: none"> a) Chiller plant room b) Cooling towers (including make up water tank and make up water transfer tank, if any) 	<p><u>Examples:</u></p> <ul style="list-style-type: none"> a) Heat exchanger room, if any

	make up water transfer tank) e) Electrical Substation serving DCS			
Capacity of host plant	Proposed capacity of host DCS plant and service provider's assessment on the sufficiency to serve the overall network	-	Proposed capacity of CCS host chiller plant and service provider's assessment on the sufficiency to serve the overall network	-
Proposed use of decommissioned / freed up IBCP spaces (as part of A&A works)	-	To clearly show the proposed use of the decommissioned IBCP space on the submission plans If GFA from the decommissioned IBCP space is proposed to be decanted to other parts of the development, to provide justifications why the original IBCP space could not be converted for other uses in situ	In cases where the original IBCP GFA is proposed to be now computed as bonus Utility GFA, the freed up GFA from the IBCP can be put to other uses in the development – these uses should be clearly shown on the submission plans	To clearly show the proposed use of the decommissioned IBCP space on the submission plans If GFA from the decommissioned IBCP space is proposed to be decanted to other parts of the development, to provide justifications why the original IBCP space could not be converted for other uses in situ