

District Cooling Services

Supply Conditions

May 2019 Edition

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1 Interpretation

The terms used in this set of District Cooling Services (DCServ) Supply Conditions (Supply Conditions) have the same meanings attributed to them by the District Cooling Services Ordinance, Cap. 624 (the Ordinance). Applicant and approved consumer of DCServ are advised to refer to the Ordinance for details where necessary. In particular, it should be noted that:

"***agreed starting date***", in relation to a building for which a person is an approved consumer, means the intended starting date for the provision of DCServ to the building as agreed by the Director of Electrical and Mechanical Services (DEMS) when approving the person as the consumer under the Ordinance;

"***approved consumer***", in relation to a building, means a person who is approved under the Ordinance as the consumer of DCServ for the building;

"***contract cooling capacity***", in relation to a building, means the estimated maximum cooling capacity required for providing DCServ to a building as proposed by the consumer for a building and agreed by DEMS on the approval of the consumer of DCServ for a building or revised by the approved consumer for a building and agreed by the DEMS;

"***consumer installation***", in relation to a building, means an installation of chilled water system of the central air-conditioning system of the building, which connects to the district cooling system through the interfacing pipes of the secondary side of the heat exchanger(s) of the district cooling system, inside the substation by the approved consumer;

"***district cooling services (DCServ)***" means the supply of chilled water for air-conditioning purposes by a district cooling system owned by the Government, and other related services;

"***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;

"***meter***", in relation to a building to which DCServ are provided by a district cooling system, means a device owned by the Government and maintained by the Electrical and Mechanical Services Department (EMSD) or the operator in the building for the purpose of measuring the actual cooling capacity demanded and the actual cooling energy used by the building;

"***nominal flow rate***", in respect of a heat exchanger of the district cooling system, means the flow rate of chilled water at the secondary side of the heat exchanger corresponding to the contract cooling capacity at the supply temperature of 6°C and return temperature of 14°C;

"***normal operating conditions***" at any time means all of the following conditions: (i) the consumer's cooling capacity demanded from DCServ does not exceed the contract cooling capacity (C_c in kW_r); (ii) the chilled water flow rate at the secondary side of every heat exchanger is not less than 20%, but not more than 100%, of its nominal flow rate ($Q = C_c / 33,600$, in m³/s); and (iii) the chilled water return temperature at the secondary side of every heat exchanger is maintained at 14°C;

"*operator*" means a person who has entered into an agreement with the Government for the management, operation and maintenance of a DCS;

"*substation*" means the site within the building in which the heat exchangers, the chilled water pipes, meter and other associated equipment are installed to receive DCServ as specified by EMSD.

2 Scope and Purpose of the Supply Conditions

This set of Supply Conditions covers the general and technical terms and conditions upon which the EMSD will supply DCServ, as well as conditions relating to the use of the DCServ. The Supply Conditions apply to both of EMSD and the approved consumer of the DCServ, and set forth the following with respect to the DCServ:

- (a) the minimum standards of performance of the DCServ;
- (b) the rights and obligations of EMSD and consumer; and
- (c) the technical requirements and arrangement for the DCServ.

Matters relating to DCServ provided by the Government including the imposition of charges for the services and other related matters are provided in the Ordinance. Applicant and approved consumer of DCServ are advised to read the Ordinance to keep themselves fully aware of their rights and obligations under the Ordinance. In the event of any inconsistency or conflict between the Supply Conditions and the provisions of the Ordinance, including any subsidiary legislation or regulations made under it, the latter will prevail.

3 Rates of Primary Charge for District Cooling Services

The rates of primary charge (i.e. the capacity charge rate and consumption charge rate) for DCServ may be revised from time to time according to the provisions of the Ordinance, and notice of any revisions shall be given by publishing such revisions in EMSD's website or placing a notice in any daily newspapers in circulation in Hong Kong. In addition, EMSD will inform the approved consumer in writing of the revised rates of primary charge.

4 General Obligations of EMSD

- (a) EMSD shall, at its own costs, be solely responsible for planning, designing, constructing, installing, testing, commissioning, operating and maintaining the DCS. EMSD may employ an operator who has entered into an agreement with EMSD for the management, operation and maintenance of the DCS.
- (b) EMSD shall, in committing to provide DCServ to a new consumer at the contract cooling capacity, ensure that there is adequate capacity in the DCS.
- (c) EMSD shall, on approval of the approved consumer's application for change of contract cooling capacity, ensure that there is adequate capacity in the DCS to cater for the revised contract cooling capacity and which will not cause any adverse impact to existing consumers and the stability and reliability of the DCS.

5 General Obligations of the Approved Consumer

- (a) The approved consumer shall use the DCServ solely for air-conditioning of their building as approved by the DEMS.
- (b) Before the supply of DCServ, the consumer installation shall be completed and tested by the approved consumer's competent person to the reasonable satisfaction of EMSD or the operator.
- (c) The approved consumer shall be responsible for proper maintenance of the consumer installation to perform and maintain the chilled water return temperature on consumer side at 14°C.

- (d) The approved consumer shall at their own cost provide, construct and maintain accommodation to house the DCServ equipment in accordance with the plans and specifications agreed by EMSD. Such plans and specifications shall not be altered without the approval in writing by EMSD. The approved consumer shall ensure that such accommodation shall only be used for plant and equipment both linked to the provision of DCServ within their site boundary.
- (e) The approved consumer shall at their own costs be responsible for the provision and maintaining continuous supply of all utilities (e.g. power supply, etc.) and proper operation and maintenance of building services (e.g. ventilation, fire services, etc.) to the substations all at the consumer's cost, in order to maintain the DCServ by EMSD or the operator. The approved consumer is required to inform EMSD or the operator if there is any schedule and occasion on interruption of utilities and services for the substations in order to minimize the impact to the approved consumer. The indoor environment of the substations shall be maintained in good conditions to the reasonable satisfaction of EMSD or the operator at all times by the approved consumer.
- (f) The approved consumer is responsible for the safe custody of the EMSD owned E&M equipment installed at the substations serving their building, albeit maintenance of such electrical and mechanical (E&M) equipment is EMSD's or the operator's responsibility
- (g) The approved consumer is responsible for the provision of adequate and safe access at all reasonable times for EMSD or the operator to carry out installation, inspection, testing, operation, maintenance, regulating, alteration, repair, replacement or removal of any part for the DCS within their site boundary. If excavation or any other builder's works within their site boundary are required for such works, the approved consumer shall be responsible for the excavation or any other builder's works and subsequent reinstatement after completion of the works to the satisfaction of EMSD or the operator.
- (h) The approved consumer may at its own cost make suitable back-up plant (including the chiller plant and heat rejection system subject to the approval by the DEMS) for the air-conditioning of the building if the operations of the building cannot tolerate any failure, reduction, interruption, variation or inconsistency in the DCServ.

6 District Cooling Services

6.1 *Supply Temperature*

EMSD or the operator shall normally operate the DCS to supply chilled water at primary side of heat exchanger, measured at 30-minute interval, at Design Primary Supply Temperature (DPST) of $5^{\circ}\text{C} \pm 1^{\circ}\text{C}$ under normal operating conditions. The return temperature on consumer side shall be maintained at 14°C by the approved consumer. If the return temperature on the consumer side is continuously maintained well below the required 14°C for a prolonged period, EMSD may adopt necessary measures such as increasing the DPST, etc. so as to provide district cooling services in an energy efficient manner to the consumer concerned.

6.2 *Supply Quality*

- (a) EMSD or the operator shall exercise reasonable care and skill to provide the approved consumer with an uninterrupted supply within the DPST under normal operating conditions on a 24-hour-a-day basis.
- (b) EMSD or the operator shall use its best efforts to prevent any interruption in the provision of DCServ and to minimize the duration of any such interruption. EMSD or the operator shall notify the approved consumer as soon as practicable by telephone if there is unexpected significant change in the operating status of DCServ or if any interruption is expected to occur.

DCServ may be interrupted or may deviate from the DPST due to, but not limited to, the following circumstances:

- (i) When in the DEMS's opinion, work is required to be carried out for the installation, inspection, testing, operation, maintenance, regulating, alteration, repair, replacement or removal of any part of the DCS;
- (ii) When in the DEMS's opinion, work is required to be carried out in the event of an operational emergency arising from a fault in the DCS;
- (iii) When in the DEMS's opinion, it is necessary to do so to protect life or property;
- (iv) When in the DEMS's opinion, the behavior of, or an installation of the building by, the approved consumer for the building is jeopardizing or will jeopardize the operation or reliability of the DCServ;
- (v) When the operation of the approved consumer's air conditioning system of the building does not comply with the normal operating conditions.

6.3 Supply Capacity

EMSD or the operator shall use its best efforts to provide the approved consumer the required contract cooling capacity at all times, provided that the approved consumer shall always maintain the chilled water return temperature at 14°C.

7 Application for District Cooling Services and Changes

- (a) Any person who wishes to apply for the DCServ shall complete and sign a specified Application Form (which can be obtained from the EMSD's website) and the application procedures are set out in Appendix A of the Supply Conditions.
- (b) During the design stage, the applicant shall base on their estimated maximum cooling capacity and estimated lowest cooling capacity under full load and part load conditions respectively to design one or more suitable DCS substation(s) according to the "Technical Guidelines for Connection to District Cooling System" ("Technical Guidelines") issued by EMSD. The layouts of DCS substation(s) together with the back-up air-conditioning plant room (if applicable) shall be clearly indicated in the building plans to be submitted for approval by the Building Authority.
- (c) Application(s) made in (a) above is merely a request and neither binds EMSD to provide DCServ nor constitutes a guarantee of DCServ.
- (d) The applicant shall submit the Application Form, in which the applicant shall state the estimated maximum cooling capacity and the intended starting date of DCServ supply, with supporting document of detailed cooling load calculations. The estimated maximum cooling capacity agreed by the DEMS will become the contract cooling capacity on the approval of the application by the DEMS.
- (e) The applicant will be notified on the approval as the approved consumer of DCServ, of the contract cooling capacity and the agreed starting date on which the applicant becomes, or is taken to have become, the approved consumer for the building by EMSD after submission of Application Form. The agreed starting date will be the commencement date on which charges for the DCServ provided to the building are payable by the approved consumer for the building.
- (f) For the application to become the consumer of an existing building, the DEMS may approve any person who meets the criteria as stipulated in Section 4(4) of the Ordinance as the approved consumer for the building.

- (g) The approved consumer may make an application to EMSD for a change (either to increase or to reduce) of contract cooling capacity in which the proposed effective date for the revised contract cooling capacity should be specified by the approved consumer. Application for supply or increase of contract cooling capacity may necessitate the installation of new DCServ equipment and underground pipes or other special arrangements. It is important that application using the specified Application Form should be submitted to EMSD as early in advance as practicable.

Should an approved consumer wish to increase the contract cooling capacity, he or she shall make an application to EMSD for approval one year before the proposed date required by the approved consumer. The feasibility of meeting such increase in the cooling capacity demand will be subject to the feasibility to upgrade the existing DCS. If the increase is feasible, the actual starting date of the increased cooling capacity shall be subject to the completion of necessary engineering works and further agreement between EMSD and the approved consumer. On the other hand, the existing approved consumer may only be allowed to reduce the contract cooling capacity after one year of continuous DCServ subscription at the current contract cooling capacity.

The approved consumer may make an application to EMSD for an increase or a reduction of the contract cooling capacity before the completion of one year continuous subscription at the current cooling capacity, but the intended starting date of the increased or reduced cooling capacity as proposed by the approved consumer should be bound by the requirements as stipulated above (i.e. at least one year after the date of application for an increase of contract cooling capacity, and after the completion of at least one year continuous subscription at the current contract cooling capacity for a reduction of contract cooling capacity). The approved consumer who intends to subscribe at a lower contract cooling capacity in the beginning and to increase the contract cooling capacity subsequently in view of his or her building's partial cooling demand should pay attention to the above requirements.

The approved consumer shall submit supporting details including revised cooling load calculation, revised substation layouts (if any) and operation record in the submission of application of change (whether to reduce or to increase) of contract cooling capacity for EMSD's consideration.

The submission and approval procedures for change of contract cooling capacity are set out in Appendix B of the Supply Conditions.

- (h) Every reasonable effort will be made by EMSD to provide DCServ by the date required by consumer. However, no guarantee of provision of DCServ by a particular date can be given.
- (i) EMSD may require the inspection of the consumer installation prior to DCServ being provided.
- (j) The approved consumer shall pay deposit for the DCServ in accordance with the provisions in the Ordinance. EMSD will notify the approved consumer of any deposit which may be payable.

8 Additions or Alterations to Existing Consumer Installation

Additions or alterations to existing consumer installation are allowed subject to compliance with the Technical Guidelines. The approved consumer shall assess whether such additions or alterations may adversely affect the supply of DCServ or not. If the result of such assessment is positive, i.e. such additions or alterations may adversely affect the supply of DCServ, then such additions or alterations shall be prohibited. If the assessment is negative, the approved consumer shall inform EMSD in advance the commencement date and duration of such additions or alterations.

9 Accommodation for District Cooling Services Equipment

- (a) An approved consumer shall provide, free of charge to EMSD, the use of suitable accommodation in their building to house the equipment as may in the opinion of EMSD be required for the purposes of providing and metering the DCServ. The accommodation may include but not be limited to substations together with associated pipe trench, structural and electrical and mechanical services during the first connection or subsequent maintenance of DCServ. The approved consumer shall be responsible for maintaining such accommodation in good order.
- (b) Any excavation works and reinstatement of excavation surfaces on or within consumer's site boundary after installation or subsequent maintenance of EMSD's E&M equipment shall be the responsibility of the approved consumer.
- (c) EMSD or the operator shall have access at all reasonable times to substations for the purpose as specified in the provision of the Ordinance. An approved consumer shall not erect any fixtures or fittings in such a way as to obstruct free access for such purposes.
- (d) An approved consumer shall be responsible for the damage in the substations arising from or in connection with theft, fire, flooding, unauthorized interference or tampering of the facilities in the substations.
- (e) EMSD shall agree with the approved consumer on a date on which the accommodation for DCServ equipment would be ready for EMSD to install. This date is normally at least five (5) months before the intended starting date for DCServ to be provided to the approved consumer's building.

10 Interference or Tampering with District Cooling Services Equipment

- (a) An approved consumer must not interfere or tamper with DCServ equipment.
- (b) Interference or tampering with DCServ equipment may result in death or injury to the parties doing such activities.
- (c) Interference or tampering with DCServ equipment may jeopardize the operation or reliability of the DCServ, DEMS may suspend or terminate the DCServ in accordance with section 7 of the Ordinance.
- (d) According to Section 21(1)(b) of the Ordinance, it is an offence if a person tampers with a facility owned and maintained by the Government for any purpose relating to the provision of DCServ.

11 Improvement Notice

Pursuant to the Ordinance, EMSD may issue an Improvement Notice to an approved consumer if the DEMS is in the opinion that the behaviour of, or an installation of the building by, the approved consumer is jeopardizing or will jeopardize the operation or reliability of the DCServ, for example, the chilled water return temperature on consumer side is not maintained at 14°C as required. If, after an Improvement Notice has been issued to the approved consumer, failure of the consumer to comply with a direction in an Improvement Notice issued may lead to the result that the DEMS may suspend the DCServ to the building in accordance with the Ordinance.

12 District Cooling Services Meter

The actual cooling capacity and actual cooling energy consumption of the building shall be measured by a meter with accuracy within permissible limits of $\pm 3\%$ at the rated capacity of each substation. The accuracy of the meter shall be verified at first installation and the register or indicator of the meter shall be the prima facie evidence of the amount of actual cooling energy consumed and the actual cooling capacity required.

The meter shall be supplied, installed and maintained by EMSD or the operator.

If the approved consumer disputes the accuracy of the meter, the approved consumer may apply to EMSD to have the meter tested. EMSD may charge the approved consumer who submits such application a fee for testing in an amount equivalent to the cost involved in testing the meter if the meter is found to operate within the permissible limits of $\pm 3\%$.

For energy-efficiency measure, the approved consumer is recommended to install their own meter(s) that suits their chilled water distribution and zoning arrangement to monitor the usage of cooling energy in different parts of the building.

13 Deposits

The DEMS may require payment of a deposit or any additional deposit of such amount by the approved consumer in accordance with the Ordinance and the deposit will be based on the approved consumer's two months capacity charge and consumption charge at the peak demand of the building which is to be estimated or actually measured.

14 Settlement of Charges

- (a) Bills will be presented monthly based on the published capacity charge rate and consumption charge rate under the Ordinance and the current contract cooling capacity as well as the readings obtained from EMSD's meter.
- (b) Bills must be settled on or before the due date. An approved consumer who fails to settle a bill on or before its due date may be required to pay surcharge and a further surcharge under the Ordinance.
- (c) In the event of non-settlement of bills by the approved consumer, EMSD may suspend or terminate DCServ in accordance with the Ordinance.
- (d) EMSD may present bills by electronic means, such as by facsimile transmission or electronic mail, if requested by the approved consumer and agreed by EMSD.

15 Adjustment of Charges

- (a) When the meter is found to be operating outside the limits of accuracy stipulated in paragraph 12, due to normal wear and tear, EMSD will make a retrospective adjustment to the approved consumer's account in respect of consumption and demand for a period not exceeding one month.
- (b) In the event that the meter is found not to be properly recording consumption or demand of DCServ due to interference, tampering, disconnection, malfunction (other than normal wear and tear) or otherwise of the meter or of ancillary facilities or connecting pipes, the approved consumer shall pay for the capacity charge and consumption charge of DCServ for the period during which the meter ceased to record properly. The period and amount of consumption and capacity of DCServ for that period shall be determined by EMSD based on any available technical evidence, records and other relevant circumstances.

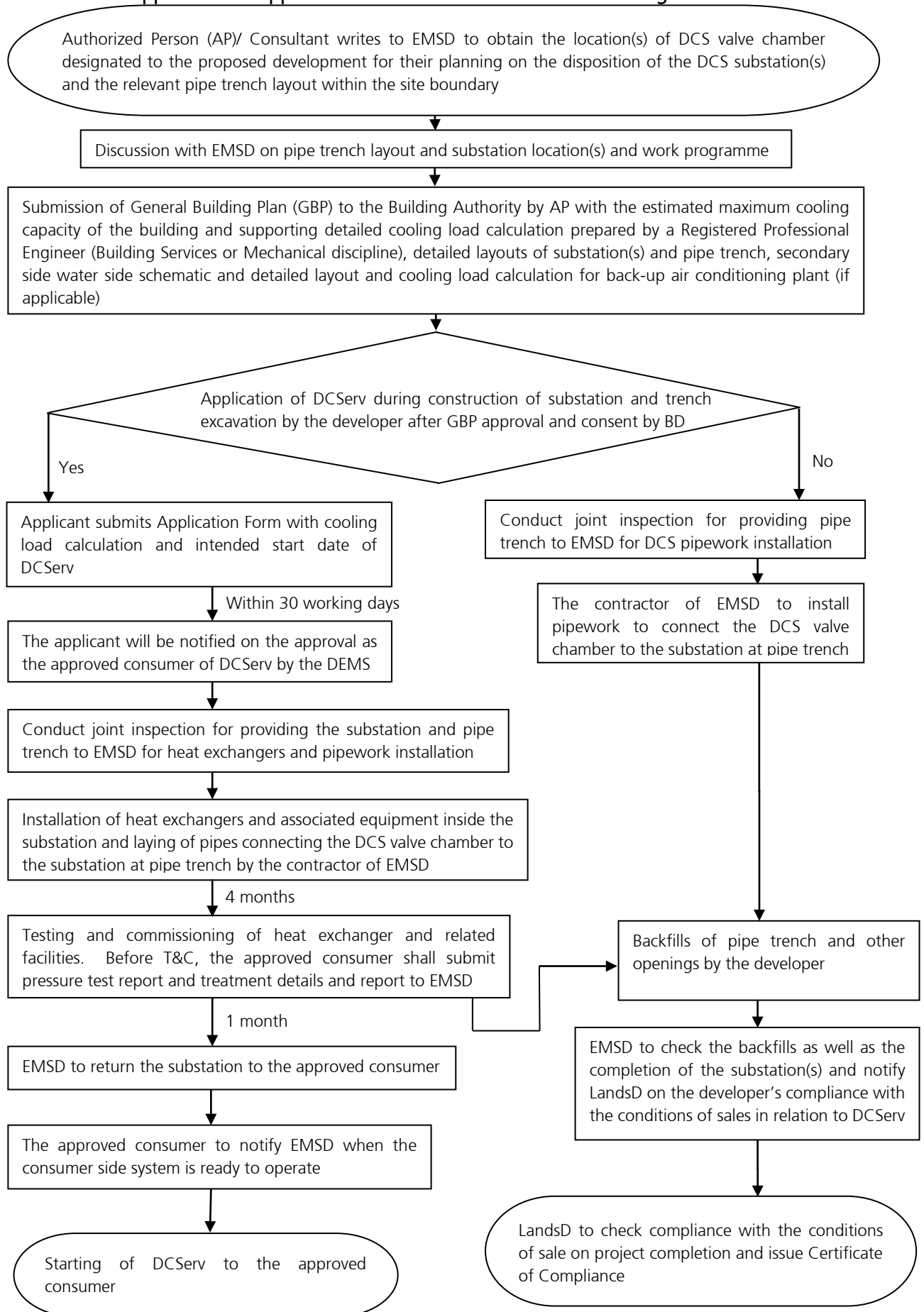
- (c) When an approved consumer has been undercharged or overcharged due to any mistake or error such as:
 - (i) incorrect reading of the meter;
 - (ii) malfunction of the meter or the associated equipment or part thereof;
 - (iii) disconnection, incorrect connection or non-connection of or any unauthorized interference with the meter or the associated equipment or part thereof;
 - (iv) power interruption to the meter; and/or
 - (v) any deliberate act that causes an alteration of the index to the meter or prevents any meter from duly registering the quantity of DCServ supplied.

EMSD will on the basis of its records, available technical evidence, the approved consumer's consumption history and other relevant circumstances, make retrospective adjustments to the approved consumer's account in respect of consumption and capacity to such extent and for such period as may be determined by EMSD.

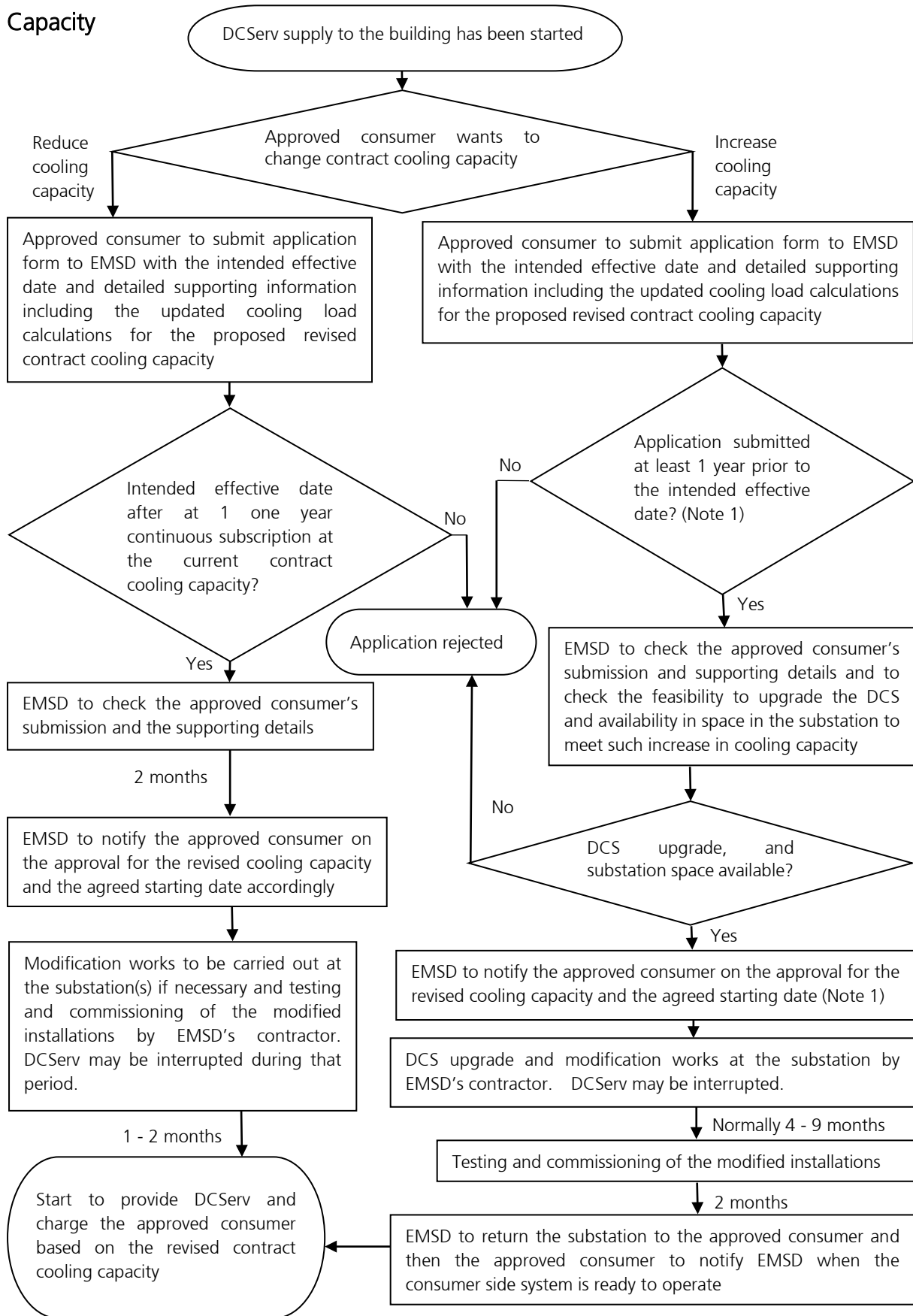
16 Ceasing to be Approved Consumer and Termination of District Cooling Services

- (a) An approved consumer for a building intending to cease the approved consumer role for any reasons such as to transfer the consumer role, to vacate the building or to terminate the DCServ, he or she must give at least one month's advance notice by submission of a specified form (which can be obtained from the EMSD's website) to EMSD. If less than one month's advance notice is given, the cessation may only be allowed to take effect on a date until one month after receipt of such notice.
- (b) The application must state the intended dates of termination of DCServ and cessation of approval. Upon receipt of the application and if accepted by the DEMS, the final meter reading will be taken on an agreed date of termination of DCServ for the final bill. The approved consumer should settle all outstanding charges and fees, otherwise the approved consumer role will not be ceased and deposit will not be released.
- (c) Failing to submit the aforementioned form to EMSD to cease the consumership, the approved consumer will be held responsible for any DCServ consumed until such time as the DCServ is terminated by EMSD, notwithstanding that the approved consumer may in the meantime have ceased to own or occupy the building.
- (d) After the final bill has been paid, an approval letter with the effective date for ceasing to be approved consumer and a cheque (if applicable) for refund of deposit balance will be sent to the consumer.

Appendix A – Application Procedures for the District Cooling Services



Appendix B - Submission and Approval Procedure for Change of Contract Cooling Capacity



Note 1: Subject to completion of necessary engineering works and further agreement between EMSD and the approved consumer, the actual starting date of the increased cooling capacity may be earlier than 1 year after submission of application.