

SCHEDULE 12B

CO-LOCATION SUPPLEMENTARY COOLING SERVICE

SCHEDULE 12B

CO-LOCATION SUPPLEMENTARY COOLING SERVICE

CONTENTS

1. GENERAL	1
2. AVAILABILITY AT A CENTRAL OFFICE	5
3. ORDERING AND PROVISIONING PROCEDURE	5
4. PROJECT STUDY	9
5. SITE PREPARATION WORK	9
6. STANDARD TERMS AND CONDITION	10
7. FAULT REPORTING AND CLEARING	12
8. TERM OF LICENCE	13
9. SUSPENSION OF LICENCE	15
10. TERMINATION OF LICENCE	15
11. REQUEST FOR RE-LOCATION OF CO-LOCATION SUPPLEMENTARY COOLING SYSTEM WITHIN THE CO-LOCATION SPACE IN THE SAME CENTRAL OFFICE	19

ANNEX 12A - SERVICE LEVEL GUARANTEES

ANNEX 12B - LIST OF CENTRAL OFFICES

ANNEX 12C - CO-LOCATION SUPPLEMENTARY COOLING SERVICE REQUEST FORM

ANNEX 12D - SPECIFIC TERMS AND CONDITIONS FOR CO-LOCATION SUPPLEMENTARY COOLING SERVICE AT CENTRAL OFFICES EXCEPT TUAS

ANNEX 12E - SPECIFIC TERMS AND CONDITIONS FOR CO-LOCATION SUPPLEMENTARY COOLING SERVICE AT TUAS

SCHEDULE 12B

CO-LOCATION SUPPLEMENTARY COOLING SERVICE

1. GENERAL

1.1 This Schedule sets out the terms and conditions under which OpenNet will provide the Requesting Licensee with Co-Location Supplementary Cooling Service at the Central Offices.

1.2 Except as provided in this Schedule, the Requesting Licensee shall, at its own cost, provide all installation materials, tools, equipment and manpower needed for the adjustment and / or modification of their Co-Location Equipment (if required) to use the Co-Location Supplementary Cooling Service. Where any work is to be carried out by OpenNet under this Schedule, and the Charge is not defined under Schedule 15 (Charges), the Requesting Licensee shall pay all costs incurred by OpenNet in provisioning Co-Location Supplementary Cooling Service, subject to the following conditions:

- (a) the costs incurred by OpenNet will relate to the work that OpenNet needs to perform in order to provision the Co-Location Supplementary Cooling Service at a Central Office;
- (b) before incurring such costs, OpenNet will provide Requesting Licensee with prior reasonable written notice that the Requesting Licensee's Request requires OpenNet to undertake such work and such notice shall clearly and with sufficient detail set out the following:
 - (i) the reasonable costs which OpenNet seeks to recover from the Requesting Licensee in respect of the costs incurred by OpenNet (including a breakdown of the individual cost components and justification for incurring each cost component); and
 - (ii) based on the information set out in paragraph (b) (i), a binding written quote to the Requesting Licensee in respect of the work to be undertaken by OpenNet which shall be valid for a period of ten (10) Business Days (or such other time as may be agreed between the Parties) from the date they are notified to the Requesting Licensee by OpenNet;

- (c) OpenNet shall obtain the prior written approval of the Requesting Licensee to the costs noted in the notice within the time period under paragraph (b) (ii) and if the Requesting Licensee does not provide its written approval within that time period, then OpenNet may suspend OpenNet's work under this clause 1.2 until the Requesting Licensee agrees in writing. For the avoidance of doubt, the Requesting Licensee shall not be liable to bear any costs incurred by OpenNet under clause 1.2 unless the Requesting Licensee has given its prior written approval under this clause 1.2(c); and
 - (d) any dispute in respect of determining the reasonable costs set out in the notice shall be resolved in accordance with Schedule 17 to the ICO Agreement.
- 1.3 The list of Central Offices and the technical operating conditions of the Co-Location Supplementary Cooling System used are listed in Annexes 12B, 12D and 12E respectively. OpenNet may amend the Annexes from time to time with the approval of the Authority.
- 1.4 Initially, information relating to procedures and forms for ordering Co-Location Supplementary Cooling Service, installation and physical access and an updated list of COs, including information on whether any of the listed COs has been earmarked for decommissioning, will be available on OpenNet's website, for access by the Requesting Licensee through secured means. The secured access to OpenNet's website will require the payment of a Per User Account Charge (specified in clause 14 of Schedule 15 (Charges)) for each user account created. The aforementioned information shall be made available on the OpenNet Platform in due course. For the avoidance of doubt, such Per User Account Charge shall not be re-imposed when the information relating to Mandated Services is made available on the OpenNet Platform.
- 1.5 OpenNet shall not be responsible for any damage to the Requesting Licensee's Co-Location Equipment caused by fire, water leakage, air-conditioning/mechanical ventilation failure, power fluctuation/interruption, or anything beyond OpenNet's control in the Central Office other than to the extent that it is the result of a negligent, wilful or reckless breach of this ICO Agreement by OpenNet.
- 1.6 The timeframes in this Schedule relating to provisioning work for Co-Location Supplementary Cooling Service to be undertaken by OpenNet under clauses 3 (**Ordering and Provisioning Procedure**) and 4 (**Project Study**) are subject to delays caused by events outside OpenNet's reasonable control, in which case such failure to meet the timeframes shall not constitute a breach of this ICO Agreement

and clause 1.7 shall not apply, provided that OpenNet must notify the Requesting Licensee as soon as practicable upon the occurrence of such event, stating the cause of the events and specifying a new date for completion of the relevant provisioning work which is extended for the period of such delays.

1.7 OpenNet will provide the Service Level Guarantees in respect of provisioning of Co-Location Supplementary Cooling Service as set out in Annex 12A (**Service Level Guarantees**). If OpenNet fails to meet any Service Level Guarantees applicable to this Schedule and the failure to meet such Service Level Guarantees is solely caused by OpenNet, its contractors and/or suppliers, OpenNet will provide a remedy to the Requesting Licensee in accordance with:

- (i) section 1 of Annex 12A and any terms and conditions contained therein in respect of Co-Location Supplementary Cooling Request timeframes;
- (ii) section 2 of Annex 12A and any terms and conditions contained therein in respect of Project Study timeframes;
- (iii) section 3 of Annex 12A and any terms and conditions contained therein in respect of Site Preparation Work timeframes;
- (iv) section 4 of Annex 12A and any terms and conditions contained therein in respect of On-Site Response Time to fault report;
- (v) section 5 of Annex 12A in respect of claims made under Annex 12A.

The Requesting Licensee acknowledges that the relevant remedy provided under clause 1.7 is a genuine pre-estimate of the Requesting Licensee's loss and will be the sole and exclusive remedy available to the Requesting Licensee for such failure to meet the relevant Service Level Guarantees for Co-Location Supplementary Cooling Service and shall be OpenNet's sole and exclusive liability to the Requesting Licensee for such failure.

1.8 In addition to the specific terms and conditions of the Service Level Guarantees, the Service Level Guarantees shall not apply in any of the following circumstances:

- (a) The Co-Location Supplementary Cooling System is disconnected and/or reconnected by reason of it being suspended under the terms and conditions of this Schedule or ICO Agreement, except where the suspension is due to OpenNet's fault;

- (b) fault due to any equipment, wiring and/or cabling owned or operated by the Requesting Licensee or on behalf of the Requesting Licensee;
- (c) provision or restoration of the Co-Location Supplementary Cooling Service where any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by OpenNet; and (b) the Requesting Licensee has not contributed to any delay in setting up the meeting. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken from the start of arranging any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded;
- (d) OpenNet is not able to carry out the necessary installation, repair, service or maintenance due to OpenNet's inability to procure the necessary equipment, spare parts or accessories; or the Co-Location Space or building in which the Co-Location Space is located is unsafe, or pose a danger to OpenNet's Contractors. Notwithstanding the aforesaid, OpenNet shall use its reasonable endeavours to procure the said equipment, spare parts or accessories;
- (e) delay, suspension or inability in the provision or restoration of the Co-Location Supplementary Cooling Service caused by events beyond OpenNet's reasonable control;
- (f) fault in the Co-Location Supplementary Cooling Service for which the Requesting Licensee has not reported a fault;
- (g) fault in the Co-Location Supplementary Cooling Service was reported by the Requesting Licensee but no fault is found or confirmed after due investigation and verification by OpenNet;
- (h) OpenNet is required to carry out ~~scheduled~~-service interruption and the Requesting Licensee has been informed in accordance with clause 6.6 or 6.7;

1.9 If the Requesting Licensee disputes OpenNet's reason for rejection, its records and/or the amount of rebate, the Requesting Licensee shall not be entitled to be credited with any rebate until and unless the dispute has been resolved in accordance with Schedule 17 of the ICO Agreement.

- 1.10 A failure by OpenNet to meet any Service Level Guarantee does not constitute a breach of the ICO Agreement or this Schedule.

2. AVAILABILITY AT A CENTRAL OFFICE

- 2.1 The supplementary cooling solution requires a minimum heat load capacity per Central Office in order to operate. Any request for the Co-Location Supplementary Cooling Service will be assessed individually to determine if the technical operating conditions have been met prior to OpenNet confirming that the Co-Location Supplementary Cooling Service is available at the requested Central Office. For the avoidance of doubt, OpenNet shall only provide the Co-Location Supplementary Cooling Service only when the technical operating conditions specified in Table A in Annex 12D and Table B in Annex 12E are met for the respective Central Office.

- 2.2 Co-Location Supplementary Cooling Service shall be implemented according to the technical operating conditions specified in Table A and Table B in Annex 12D and Annex 12E respectively. As the Co-Location Supplementary Cooling Service does not have a redundant backup system, OpenNet shall put in place measures to supplement or assume, on a temporary basis, the role of the Co-Location Supplementary Cooling Service, whenever required, until the Co-Location Supplementary Cooling Service becomes available or resumes its normal operation.

3. ORDERING AND PROVISIONING PROCEDURE

- 3.1 OpenNet shall process requests for Co-Location Supplementary Cooling Service at a Central Office listed in Annex 12B (**Co-Location Supplementary Cooling Requests**) and allocate Co-Location Supplementary Cooling Service to Requesting Licensees in a non-discriminatory manner on a first-come-first-serve basis.

- 3.2 OpenNet shall process a maximum of sixteen (16) Co-Location Supplementary Cooling Requests per week from all Requesting Licensees (**Co-Location Supplementary Cooling Service Request Quota**). Any additional requests will be processed in the next available week where the Co-Location Supplementary Cooling Service Request Quota has not been exceeded. OpenNet shall inform the Requesting Licensee of that overflow within one (1) Business Day of the date of receiving the Co-Location Supplementary Cooling Request (**Request Date**).

- 3.3 The Requesting Licensee shall submit its Co-Location Supplementary Cooling Request using a Co-Location Supplementary Cooling Request Form in the form of Annex 12C containing but not limited to the following information:
- (a) the Central Office listed in Annex 12B at which Co-Location Supplementary Cooling Service is sought;
 - (b) the type of Co-Location Equipment proposed to be installed or already co-located in the Co-Location Space that requires Co-Location Supplementary Cooling Service; and
 - (c) the Requesting Licensee's contact details.
- 3.4 Within one (1) Business Day of the date on which OpenNet receives the Co-Location Supplementary Cooling Request (**Request Date**) and subject to clause 3.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) if its Request is rejected, for any one of the following reasons:
- (a) the Co-Location Supplementary Cooling Request is not in the prescribed form;
 - (b) the Co-Location Supplementary Cooling Request does not contain the required information or the information provided is inaccurate or misleading;
 - (c) OpenNet has plans or otherwise proposes to decommission the Central Office within six (6) months of the date of the Co-Location Supplementary Cooling Request; or
 - (d) the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule.
- 3.5 Within three (3) Business Days of the Request Date and subject to clause 3.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) if its Request is accepted, or if rejected, for any one of the following reasons:

- (a) Requesting Licensee has not procured Co-location Space from OpenNet pursuant to Schedule 12;
- (b) Co-Location Supplementary Cooling Service at a Central Office is not available under clause 2;
- (c) there is insufficient space to install the supplementary cooling system;
- (d) the provision of Co-Location Supplementary Cooling Service at a Central Office will give rise to significant health, safety, technical or engineering issues; or
- (e) there are security and confidentiality requirements or restrictions imposed on OpenNet by Governmental Agencies.

Where OpenNet rejects the Co-Location Supplementary Cooling Request, OpenNet must provide reasons explaining the basis for rejection.

3.6 OpenNet shall be solely responsible to determine the number of supplementary cooling units required by each Requesting Licensee. OpenNet shall use the following criteria and methodology as part of its Project Study in determining the number of supplementary cooling units required by each Requesting Licensee.

3.6.1 The Requesting Licensee shall be required to install a supplementary cooling unit above the rack in which the Requesting Licensee's equipment is located pursuant to Schedule 12B when the total heat load generated by the rack exceeds 1.5kW; and

3.6.2 Subject to the mutual agreement of OpenNet and the Requesting Licensee, and such agreement shall not be unreasonably withheld by OpenNet, a supplementary cooling unit may be shared by the adjacent rack(s) of the Requesting Licensee. Nothing herein prevents a supplementary cooling unit from being shared amongst OpenNet's Requesting Licensees, subject to the mutual agreement of such Requesting Licensees. The sharing arrangements between the Requesting Licensees shall be managed by the Requesting Licensees themselves. Any sharing of a supplementary cooling unit shall not discriminate against any of OpenNet's Requesting Licensees.

For the avoidance of doubt, nothing herein shall constrain OpenNet's reasonable discretion to require a Requesting Licensee to install a supplementary cooling unit above any of its racks which generates a total heat load which exceeds 1.5kW.

The heat load generated per rack is based on the information in Annex 12C submitted by the Requesting Licensee as required under clause 3.3 of Schedule 12. In the event that the heat load generated by the rack is found to be higher than that declared by the Requesting Licensee in Annex 12C and exceeds the heat load limit stated in clause 3.6.1, the Requesting Licensee shall be required to install a supplementary cooling unit above the said rack. For clarity, the total heat load = total power x 90%.

Upon completion of the project study, the Requesting Licensee will be informed of the number of supplementary cooling units which it is required to take up. The supplementary cooling unit to be installed is subject to Table A Technical Operating Conditions under Annex 12D and Table B Technical Operating Conditions under Annex 12E of Schedule 12B.

- 3.7 The Requesting Licensee shall be liable for and shall pay OpenNet the Co-Location Ordering Charge for processing the Co-Location Supplementary Cooling Request as provided in Schedule 15 (Charges), irrespective of the outcome of the Co-Location Supplementary Cooling Request, unless the Co-Location Supplementary Cooling Request was wrongfully rejected by OpenNet.
- 3.8 Where OpenNet is unable to offer the Co-Location Supplementary Cooling Service due to its unavailability, OpenNet shall discuss with the Requesting Licensee and put in place a suitable alternative arrangement to ensure that the Requesting Licensee can continue to operate its equipment without disruption, and take reasonable measures to inform the Requesting Licensee when the Co-Location Supplementary Cooling Service will be available.
- 3.9 The Requesting Licensee acknowledges that the actual placement of the Co-Location Supplementary Cooling equipment shall be determined by OpenNet. There will be no charges for utilisation of the Co-Location Space for the provision of the Co-Location Supplementary Cooling Service. OpenNet is not obligated to place the same Requesting Licensee's Co-Located Equipment adjacent to each other, provided that OpenNet shall use its reasonable endeavours to accommodate any reasonable request for such adjacent placement made by the Requesting Licensee.

4. PROJECT STUDY

- 4.1 Subject to clause 3.2 and except where OpenNet has rejected a Co-Location Supplementary Cooling Request under clauses 3.4 and 3.5, OpenNet shall complete a Project Study within fifteen (15) Business Days of the Request Date. The Requesting Licensee must pay the Project Study Fee specified in Schedule 15 (Charges). The Project Study normally entails a joint site survey with the Requesting Licensee to determine the space, placement of the Co-Location Supplementary Cooling System and Site Preparation Works required at the Co-Location space.
- 4.2 Following completion of the Project Study, OpenNet shall provide the Requesting Licensee with the following information ascertained as a result of the Project Study:
- (a) the placement of the supplementary cooling unit;
 - (b) that the Site Preparation Work would be completed within ninety (90) Business Days; and
 - (c) an outline of the major elements of the Site Preparation Work to be undertaken by OpenNet together with the timeline to carry out the Site Preparation Work.
- 4.3 OpenNet shall be entitled to levy and receive the Project Study Fee provided in Schedule 15 (Charges) irrespective of whether the Requesting Licensee proceeds with the Co-Location Supplementary Cooling Request after completion of the Project Study.

5. SITE PREPARATION WORK

- 5.1 Within ten (10) Business Days (or such other time as may be agreed between the Parties) from the date of notification of the result of the Project Study under clause 4.2, the Requesting Licensee shall confirm in writing whether it wishes to proceed with Co-Location Supplementary Cooling Service.
- 5.2 The Requesting Licensee shall pay OpenNet the Cancellation Fee provided in Schedule 15 (Charges) if the Requesting Licensee cancels the Co-Location Supplementary Cooling Request after its confirmation in clause 5.1.

- 5.3 OpenNet shall complete any Site Preparation Work within a period provided under clause 4.2(b) from the date on which the Requesting Licensee notifies OpenNet under clause 5.1 that it wishes to proceed with Co-Location. If OpenNet is not able to complete the Site Preparation Work within the timeframe under this clause 5.3, OpenNet shall inform the Requesting Licensee of when the Site Preparation Work will be completed.
- 5.4 Within one (1) Business Day after the completion of the Site Preparation Work, OpenNet will notify the Requesting Licensee and request the Requesting Licensee to attend the Central Office for a final site inspection of the Co-Location Space.

6. STANDARD TERMS AND CONDITIONS

- 6.1 The Requesting Licensee shall conduct the final site inspection of the Co-Location Space jointly with OpenNet within one (1) Business Day of receipt of the notification by OpenNet under clause 5.4 above. The Requesting Licensee shall pay a Monthly Recurring Charge and Power Charge in accordance with Schedule 15 (Charges) upon completion of the final site inspection.

In any event, save where OpenNet is not able to commence provisioning of the Co-Location Supplementary Cooling Service or conduct the final site inspection jointly with the Requesting Licensee due to OpenNet's fault or delay, the Requesting Licensee shall be liable to pay the Monthly Recurring Charge and Power Charge under Schedule 15 (Charges) no later than the third Business Day after OpenNet's notification and request for a final site inspection as described in clause 5.4 above.

- 6.2 Subject to IDA's prior written approval at all times, the charges in Schedule 15 may be revised if there are no requests or, subject to the technical operating conditions in Table A in Annex 12D and Table B in Annex 12E, inadequate requests to implement the Co-Location Supplementary Cooling System, after one (1) year from the date of offer of ICO Schedule 12B.

- 6.3 The Requesting Licensee acknowledges that:
- (a) it will fully indemnify and hold OpenNet harmless at all times against all actions, claims, proceedings, costs (including legal costs), losses or damages or expenses for injuries or death to any person whomsoever, which may be brought against OpenNet by any person out of or in connection with any loss or damage to any property, including third party equipment, resulting from the actions or omissions of the Requesting

Licensee's employees or contractors, unless such loss or damage is due to or arises from OpenNet's negligence or breach of this ICO Agreement;

- (b) it must maintain good engineering and operational practices in its use of its equipment; and
- (c) the technical means by which OpenNet supplies the Co-Location Supplementary Cooling Service is at OpenNet's sole discretion.

6.4 The Requesting Licensee shall, immediately on notice from OpenNet, remove from the Central Office any hardware, software or cabling component of the Requesting Licensee that OpenNet (in its sole discretion) considers may cause or is likely to cause a hazard, interference or obstruction to OpenNet's operation and maintenance of the Co-Location Supplementary Cooling Service.

6.5 Subject to the Requesting Licensee paying to OpenNet the charges specified in Schedule 15 (Charges) in full and without delay, OpenNet shall bear all costs incurred as part of maintaining and/or providing the Co-Location Supplementary Cooling Service, including any losses and damages incurred by OpenNet and/or the Requesting Licensee due to or arising from OpenNet's negligence or breach of this ICO Agreement.

6.6 If it is necessary to carry out any ~~planned~~~~scheduled~~ service interruption, including but not limited to planned repair, or replacement or upgrade to any equipment or facility forming part of the Co-Location Supplementary Cooling Service, OpenNet shall provide the Requesting Licensee with at least two (2) weeks'~~one (1) month's~~ written notice in advance of such interruptions, repairs or upgrades, and shall inform Requesting Licensees of the period of service interruption. In the event the planned service interruption has to be changed, OpenNet shall provide the Requesting Licensee with no less than twenty-four (24) hours' notice. OpenNet shall take reasonable measures to minimise any service disruption to the Requesting Licensee. ~~In the event of an unforeseen event that disrupt the service, OpenNet shall carry out emergency repairs to safeguard property and restore service. OpenNet shall notify Requesting Licensee during emergency outages.~~

6.7 If it is necessary to carry out any urgent service interruption, including but not limited to planned repair, or replacement or upgrade to any equipment or facility forming part of the Co-Location Supplementary Cooling Service, OpenNet shall notify the Requesting Licensee as soon as practicable, including after the carrying out of the service interruption, and shall inform Requesting Licensees of the period of service

interruption. OpenNet shall take reasonable measures to minimise any service disruption to the Requesting Licensee.

6.87 OpenNet shall not be liable for any loss due to such ~~scheduled~~-service interruption unless the ~~scheduled~~-service interruption is due to OpenNet's negligence or breach of this Schedule 12B.

6.98 The Requesting Licensee, as soon as it becomes aware and at its sole cost, shall,

(a) Notify OpenNet of any defects or problems discovered in the Co-Location Supplementary Cooling Service, if applicable, and provide OpenNet with the relevant information available pertaining to the defects or problems to facilitate correction or rectification;

(b) Not alter, modify or damage the Co-Location Supplementary Cooling System in any way whatsoever or permit the Co-Location Supplementary Cooling System to be altered, modified, damaged or combined with any other equipment or system not approved by the manufacturer and OpenNet. The Requesting Licensee shall bear all costs associated or arising from any breach by Requesting Licensee of this clause 6.8 (b);

(c) Ensure that its equipment (including cables) shall not obstruct OpenNet or its authorised contractors from carrying out operation and maintenance work on the Co-Location Supplementary Cooling System.

(d) Notify OpenNet of any malfunction, defects, failure or problems with the Co-Location Supplementary Cooling System immediately upon Requesting Licensee becoming aware of same.

6.109 At any time during the Term of License, a Co-Location Supplementary Cooling System is deemed to have reached its End of Life ("End of Life") if it has reached the end of its useful economic life as advised by the supplementary cooling system(s) manufacturer.

7. FAULT REPORTING AND CLEARING

7.1 It is the Requesting Licensee's responsibility to ensure that the fault does not lie within its own equipment before reporting the fault to OpenNet.

7.2 OpenNet may respond with an on-site service within the On-Site Response Time (as defined hereunder).

- 7.3 Each Party must have or establish a Fault Reporting and Control Centre (FCC) to act as a single point of contact for the reporting, management and clearing of faults. The FCC must be available twenty-four (24) hours a day, seven (7) days a week. Where an on-Site service is required (each, a "Request"), OpenNet or its duly authorised agents shall respond on-Site to the Request within a target response time of four (4) hours ("On-Site Response Time") from the time of the Request provided always that a Request is only valid and acceptable if it is made to and received by OpenNet via OpenNet's FCC.
- 7.4 The term "On-Site Response Time" means the target period of time within which OpenNet or its duly authorised agents are to arrive at the affected Site from the time of receipt by OpenNet's FCC of the Request by Requesting Licensee.
- 7.5 The time taken to resolve a fault request shall depend on the nature of the problem and the availability of any Co-Location Supplementary Cooling System parts that require replacement. In this regard, OpenNet shall use reasonable endeavours to procure any Co-Location Supplementary Cooling System parts which require replacement.
- 7.6 Except if otherwise expressly provided in this Agreement, OpenNet accepts no liability whatsoever for any loss or damage howsoever caused by or arising from the fault to the Co-Location Supplementary Cooling System.

8. TERM OF LICENCE

- 8.1 The term of a Co-Location Supplementary Cooling Service licence granted under this Schedule shall commence on the date when OpenNet and the Requesting Licensee have conducted a joint final site inspection or the third Business Day after OpenNet has completed the Site Preparation Work whichever is earlier (**Commencement Date**) and continues for the term of eight (8) years subject to the End of Life of the supplementary cooling system, until the earlier of any of the following events:
- (a) either party terminates the Co-Location Supplementary Cooling Service in accordance with clause 10;
 - (b) the OpenNet ICO is revoked by the Authority under clause 12.8 of the ICO Agreement; or
 - (c) the Authority removes the requirement for OpenNet to provide Co-Location Supplementary Cooling Service under the OpenNet ICO or

exempts OpenNet from providing Co-Location Supplementary Cooling Service under clause 12.9 of the ICO Agreement.

8.2 During the Term of Licence and subject to the Authority's approval, if any of or all the supplementary cooling systems reach their End of Life, OpenNet shall:

- (i) where OpenNet receives the notification from the manufacturer or is made aware that the Co-Location Supplementary Cooling System will reach or has reached its "End of Life", notify the Requesting Licensees immediately;
- (ii) at the time of notice or as soon as practicable thereafter, propose, subject to the Authority's approval, new, additional or replacement system(s) and any revised specifications, prices, terms and conditions;
- (iii) where practicable, consult the affected Requesting Licensees on the proposal and submit the proposal incorporating the Requesting Licensees' comments to the Authority for approval; and
- (iv) In any event, offer the replacement Co-Location Supplementary Cooling Service on the terms and conditions approved by IDA.

8.3 OpenNet shall use reasonable endeavours to source for and obtain a replacement service on at least equivalent prices, terms and conditions as the service that is due to be retired. In the event OpenNet is not able to obtain such replacement service on similar or equivalent prices, terms and conditions due to the absence of such replacement service or market factors, OpenNet shall notify and furnish the Requesting Licensee with a quotation for any additional charges resulting from the migration to the replacement service. Any such additional charges shall be subject to the Authority's prior written approval. The Requesting Licensee shall, within ten (10) Business Days from the date of the quotation referred to under this clause 8.3, inform OpenNet in writing whether it accepts the quotation. Where the Requesting Licensee requests for an extension, OpenNet shall grant such an extension provided such extended timeframe is reasonable. If the Requesting Licensee does not accept the quotation, or if the Requesting Licensee does not (for any reason whatsoever) inform OpenNet in writing of its acceptance of the quotation within ten (10) Business Days or the agreed extended timeframe from the date of the quotation, the quotation shall be deemed cancelled.

8.4 For the avoidance of doubt, if the Co-Location Supplementary Cooling System has reached "End of Life" due to OpenNet's negligence or breach of this ICO

Agreement, OpenNet shall not impose on the Requesting Licensee any additional charges and costs above the prices of the service that is due to be retired.

9. SUSPENSION OF LICENCE

- 9.1 OpenNet may suspend the Requesting Licensee's Co-Location Supplementary Cooling Service licence at any time until further notice to the Requesting Licensee if the Co-Location Equipment causes or is likely to cause physical or technical harm to the Co-Location Supplementary Cooling System including but not limited to causing damage, interfering with or causing deterioration in the operation of the Co-Location Supplementary Cooling Service.
- 9.2 Where the suspension of the Co-Location Supplementary Cooling Service licence was due to the Requesting Licensee's fault, OpenNet shall, upon the end of the suspension period, charge the Requesting Licensee a Reconnection Charge for the service reconnection works in accordance to Schedule 15 (Charges). Additionally and for the avoidance of doubt, the Requesting Licensee shall remain liable for the Monthly Recurring Charge and Power Charge for the duration of such suspension of the Co-Location Supplementary Cooling Service licence.
- 9.3 Without limiting the exclusions or limitations of liability in this ICO Agreement, OpenNet shall not be liable to the Requesting Licensee for any Loss resulting from, or in connection with, suspension of access to Co-Location Supplementary Cooling Service under this clause 9.

10. TERMINATION OF LICENCE

- 10.1 Either Party (**Terminating Party**) may terminate the licence of Co-Location Supplementary Cooling Service:
- (a) if the other Party is in breach of this Schedule other than failure to pay any sum for which the Requesting Licensee has been invoiced, and such breach remains un-remedied for a period of sixty (60) Calendar Days after receiving notice from the Terminating Party; or
 - (b) if the Requesting Licensee is in breach of this Schedule by its failure to pay any sum for which the Requesting Licensee has been invoiced, and such breach remains un-remedied for a period of fourteen (14) Calendar Days after receiving notice from the Terminating Party. For the avoidance of doubt, this sub-clause shall not apply pending the resolution of any

Billing Dispute in accordance with the provisions of Schedule 16 (Billing).

- (c) the Co-Location Supplementary Cooling Service has become unsafe for its purpose

10.2 OpenNet may immediately terminate a licence of Co-Location Supplementary Cooling Service if:

- (a) in OpenNet's reasonable opinion, the Requesting Licensee is using the Co-Location Supplementary Cooling Service in contravention of an applicable law, licence, code, regulation or direction and OpenNet has the necessary confirmation from the relevant Governmental Agencies that the Requesting Licensee is in contravention of the applicable law, licence, code, regulation or direction;
- (b) the Requesting Licensee's Co-Location Supplementary Cooling Service licence has been suspended pursuant to clause 9.1 of this Schedule, and the Requesting Licensee fails to rectify the fault giving rise to the suspension within a period of sixty (60) Calendar Days from the date of suspension;
- (c) the Co-Location Supplementary Cooling Service is used for a purpose other than for Requesting Licensee's Co-Location Equipment;
- (d) the Co-Location Supplementary Cooling Service has become unsafe for its purpose;

10.3 OpenNet may terminate the Requesting Licensee's Co-Location Supplementary Cooling Service Licence with no less than ten (10) Business Days' prior written notice, if the Requesting Licensee removes or abandons its Co-Location Equipment and the Requesting Licensee does not dispute the termination within ten (10) Business Days from the date of such written notice by OpenNet.

10.4 If at any time during the term that the licence of a Co-Location Supplementary Cooling Service is to be terminated because of the closure of that Central Office, OpenNet must give the Requesting Licensee prior written notice at least eighteen (18) months before the scheduled closure of that Central Office. The Requesting Licensee shall bear its own cost associated with the closure of a Central Office. In the event that the Requesting Licensee requests assistance from OpenNet within thirty (30) Business Days after receiving a notice under this clause to provide an

alternative solution to the Co-Location Space which is being terminated, OpenNet will use its reasonable endeavours in providing such assistance. The Requesting Licensee shall remain solely responsible for making any alternative arrangements as are necessary to continue to provide its Customers with services and shall remove its Co-Location Equipment prior to the closure of the Central Office.

10.5 The Requesting Licensee may terminate the Co-Location Supplementary Cooling Service licence by giving OpenNet at least one (1) month's prior notice.

10.6 Upon expiry or termination of the Requesting Licensee's Co-Location Supplementary Cooling Service licence :

(a) the Requesting Licensee must discontinue the use of its high heat load Co-Location Equipment and, at its own cost, remove its high heat load Co-Location Equipment from the Co-Location Space without undue delay. Alternatively, the Requesting Licensee shall reduce the heat load of the Co-Location Equipment such that it meets or is below the level specified in clause 1.5.3 under Annex 12D of Schedule 12, and show OpenNet proof of such reduction. For the avoidance of doubt, high heat load Co-Location Equipment are Co-Location Equipment at the Co-Location Space that exceeds the heat load limit specified in clause 1.5.3 under Annex 12D of Schedule 12;

(b) OpenNet shall reinstate the Co-Location Space and recover/reinstate all cables/supports/opening. Save where the Requesting Licensee's discontinuation of the use of its Co-Location Equipment is a direct result of OpenNet's decommissioning of the Central Office under Schedule 12, or where the termination of the Co-Location Supplementary Cooling Service occurs as a result of OpenNet's fault, negligence or breach of the ICO Agreement, OpenNet shall recover the reasonably incurred cost of such reinstatement of the Co-Location Space from the Requesting Licensee. OpenNet shall notify the Requesting Licensee of the costs payable by the Requesting Licensee prior to OpenNet's reinstatement of the Co-Location Space and the Requesting Licensee shall pay the same upon receipt of OpenNet's invoice. For the avoidance of doubt, OpenNet does not require the Requesting Licensee's approval of the costs, and may proceed to reinstate the Co-Location Space once it notifies the Requesting Licensee of the costs payable by the Requesting Licensee; and

(c) the Requesting Licensee shall pay OpenNet the charges for Co-Location Supplementary Cooling Service for the remainder of the term of the Co-Location Supplementary Cooling Service licence if the termination is the result of the Requesting Licensee's fault, except where the termination is pursuant to clauses 8.1(b), 8.1(c), 10.2(d), 10.4, or where the termination is initiated by the Requesting Licensee pursuant to clause 10.1(a).

10.7 If the Requesting Licensee fails to discontinue the use of its Co-Location Equipment and/or remove its Co-Location Equipment and/or reduce the heat load of its Co-Location Equipment in accordance with clause 10.6(a), OpenNet may at its sole discretion proceed to remove and/or dispose of all or such of the Requesting Licensee's Co-Location Equipment giving rise to the heat load or to reduce the heat load after giving the Requesting Licensee no less than ten (10) Business Days' written notice. OpenNet shall notify the Requesting Licensee of the costs payable by the Requesting Licensee prior to OpenNet's removal and/or disposal of such of the Requesting Licensee's Co-Location Equipment described above and the Requesting Licensee shall pay the same upon receipt of OpenNet's invoice for the cost of disposing the Requesting Licensee's Co-Location Equipment. For the avoidance of doubt, OpenNet does not require the Requesting Licensee's approval of the costs, which shall be reasonably incurred, and may proceed to remove and/or dispose of such of the Requesting Licensee's Co-Location Equipment described above upon the expiry of the notice period and after it notifies the Requesting Licensee of the costs payable by the Requesting Licensee. In such event, the Requesting Licensee shall have no claim whatsoever against OpenNet related to or in connection with the removal and/or disposal of such of the Requesting Licensee's Co-Location Equipment described above. OpenNet shall apply the proceeds of sale of such Requesting Licensee's Co-Location Equipment towards any Charges due and payable by the Requesting Licensee under Schedule 15 (Charges) and the costs involved in the removal and/or disposal of the Requesting Licensee's Co-Location Equipment including any interest thereto. Any balance of the proceeds of sale thereafter shall be paid to the Requesting Licensee without interest.

10.8 The Co-Location Supplementary Cooling Service will be terminated automatically upon termination of the Co-Location Service under clauses 10.3(e) and 10.3 (f) of Schedule 12.

11. REQUEST FOR RE-LOCATION OF CO-LOCATION SUPPLEMENTARY COOLING SYSTEM WITHIN THE CO-LOCATION SPACE IN THE SAME CENTRAL OFFICE

11.1 The Requesting Licensee may submit a Request for the re-location of Co-Location Supplementary Cooling System within the Co-Location Space in the same Central Office. The Requesting Licensee shall submit such a Request containing but not limited to information of the exact location in the Co-Location Space where the Co-Location Supplementary Cooling System is and where it is to be relocated.

11.2 Within a reasonable timeframe upon receipt of such a Request for re-location of the Co-Location Supplementary Cooling System, a joint site survey shall be conducted to assess the conditions of the Co-Location Space including but not limited to layout of the co-location room, rack(s) and the availability of sufficient space. OpenNet shall provide a written response to the Requesting Licensee indicating the acceptance or rejection of such a Request after completion of the site survey within a reasonable timeframe. Where such a Request is rejected, OpenNet will specify the reasons in the written response to the Requesting Licensee.

11.3 Such site surveys conducted by OpenNet and its consultants shall be chargeable on a cost oriented and reasonable basis, and the Requesting Licensee shall pay the same upon receipt of OpenNet's invoice. The Requesting Licensee shall be informed of the estimated cost before any work is conducted, and shall accept the quote before the site survey is conducted.

11.4 OpenNet shall charge for re-location and clause 1.2 of this Schedule shall apply.

11.5 Service Level Guarantees shall not apply for re-location of Co-Location Supplementary Cooling System within the Co-Location Space. Notwithstanding this, OpenNet shall use its reasonable endeavours to carry out and complete the re-location within a reasonable timeframe.

ANNEX 12A

SERVICE LEVEL GUARANTEES

1. REBATES FOR CO-LOCATION SUPPLEMENTARY COOLING REQUEST TIMEFRAMES

OpenNet shall respond to a Request for Co-Location Supplementary Cooling Service within three (3) Business Days from the date of the request and shall provide the following rebates in the event of any delay in responding to such Request.

Days of delay in responding to Request for Co-Location Supplementary Cooling Service (clause 3.5 of Schedule 12B) by:	Rebate
1-7 Calendar Days	50% x Project Study Fee
8-14 Calendar Days	75% x Project Study Fee
More than 14 Calendar Days	100% x Project Study Fee

2. REBATES FOR PROJECT STUDY TIMEFRAMES

OpenNet shall complete the Project Study within fifteen (15) Business Days from the date of the request.

Missed timeframe for completion of Project Study (clause 4.1 of Schedule 12B) by:	Rebate
1-7 Calendar Days	50% x Project Study Fee
8-14 Calendar Days	75% x Project Study Fee
More than 14 Calendar Days	100% x Project Study Fee

3. REBATES FOR SITE PREPARATION WORK TIMEFRAMES

OpenNet shall provide Service Level Guarantees in respect of the completion of Site Preparation Work within the timeframe communicated to the Requesting Licensee in clause 4.2(b) of Schedule 12B.

Missed timeframe for Completion of Site Preparation Work (clause 4.2 of Schedule 12B) by:	Rebate
Rebate per Business Day delayed	no. of Business Days missed x MRC/30 subject to a maximum of full MRC value payable by the RL for the affected cooling unit(s) for the month

4. REBATES FOR ON-SITE RESPONSE TIME TO FAULT REPORT

OpenNet shall provide Service Level Guarantees in respect of On-Site Response Time to fault report.

Missed timeframe for On-Site Response Time to fault report (clause 7.3 of Schedule 12B) by:	Rebate
For every hour delayed after 4 hours from time of fault report	no. of hours missed (excluding the first 4 hours) x MRC/30 subject to a maximum of full MRC value payable by the RL for the affected cooling unit(s) for the month

5. CLAIM PROCEDURES

- (a) A claim by the Requesting Licensee shall be made in writing within thirty (30) Calendar Days of the completion of the relevant Calendar Month on which the Service Level Guarantees are measured. The amount in respect of any claim shall be paid to the Requesting Licensee in the form of a rebate. The Requesting Licensee acknowledges that a failure to make a claim within the specified timeframes under this paragraph means that the Requesting Licensee waives any entitlement to the Service Level Guarantee payment in respect of that claim.

- (b) If the Requesting Licensee is entitled to a rebate pursuant to the claim made hereunder, then the amount of the rebate will be credited into the Requesting Licensee's account after it has been processed by OpenNet and will be reflected in OpenNet's bill to the Requesting Licensee in accordance with OpenNet's billing cycle.

- (c) The guarantee and rebates provided by OpenNet under this Annex 12A are:
 - (i) of an ex-gratia nature and personal to the Requesting Licensee and are non-transferable; and

 - (ii) subject to this Schedule.

- (d) Despite anything to the contrary in this section, if the Requesting Licensee qualifies for any claim under this Annex 12A, OpenNet shall honour its obligations in respect of that claim but in the event of a dispute as to whether the Requesting Licensee qualifies for a claim or as to the quantum of the claim payable to the Requesting Licensee, the dispute shall be resolved in accordance with the Dispute Resolution Procedures in Schedule 17 of the ICO Agreement, or in the case of a Billing Dispute, in accordance with Schedule 16 of the ICO Agreement.

ANNEX 12B

LIST OF CENTRAL OFFICES

Serial Number	Description of Central Office	Technical operating conditions for Co-Location Supplementary Cooling System
1	Tuas Telephone Exchange	Refer to technical operating conditions specified in Table B in Annex 12E
2	Jurong West Telephone Exchange	Refer to technical operating conditions specified in Table A in Annex 12D
3	Bukit Panjang Telephone Exchange	
4	Ayer Rajah Telephone Exchange	
5	Ang Mo Kio Telephone Exchange	
6	Orchard Telephone Exchange	
7	East Exchange	
8	Bedok Telephone Exchange	
9	Tampines Telephone Exchange	

ANNEX 12C

CO-LOCATION SUPPLEMENTARY COOLING SERVICE REQUEST FORM

REQUEST FOR CO-LOCATION SUPPLEMENTARY COOLING SERVICE

Requesting Licensee

Date of Application : _____ Application Reference Number : _____

Request is sought for the purpose of :

Address of Co-Location space : [Address / Building Name].

Type of Equipment to be installed that requires Supplementary Cooling Service

: [Description / Manufacturer / Dimensions / Power Consumption / Heat

Load/Rack Identifier (if existing racks)].

Requesting Licensee	
Sign	: _____ Name of Requesting Licensee: _____
Name	: _____ [Company Name]
Designation	: _____
Contact Number	: _____ Company Stamp : _____
Fax Number	: _____
OpenNet	
<input type="checkbox"/>	Application returned – incomplete/illegible
<input type="checkbox"/>	Not Approved Reason for Rejection _____
<input type="checkbox"/>	Approved OpenNet Approval Code _____
OpenNet	
Sign	: _____ Contact Number : _____
Name	: _____ Fax Number : _____
OpenNet	
Received Date	: _____ Queue Status : _____ Processed Date : _____

ANNEX 12D

**SPECIFIC TERMS AND CONDITIONS FOR CO-LOCATION SUPPLEMENTARY
COOLING SERVICE AT CENTRAL OFFICES EXCEPT TUAS**

1. Requesting Licensee accepts and acknowledges that the Co-Location Supplementary Cooling System has a set of technical operating conditions specified by the manufacturer as set out in Table A.

Table A: Technical Operating Conditions

(i)	Minimum heat load required for Co-Location Supplementary Cooling System in each Central Office except Tuas to operate	26kW
(ii)	Maximum heat load per rack each overhead unit can support up to	8kW
(iii)	Minimum number of overhead units per Central Office (except Tuas) for Co-Location Supplementary Cooling System to operate	6
(iv)	Maximum number of overhead units per Central Office (except Tuas) offered in a non-discriminatory manner on a first-come-first-serve basis	16 [#]

[#]Beyond the limit of 16 overhead units per Central Office (except Tuas), where requested by the Requesting Licensee, OpenNet shall continue to provide the Requesting Licensee the additional Co-Location Supplementary Cooling System unless there is genuine space or resource constraint in the Central Office. The terms and conditions of the additional Co-Location Supplementary Cooling System shall be no different from those provided under the existing limit of the 16 overhead units, unless otherwise approved by the Authority.

2. Requesting Licensee shall be fully responsible for any defect in the Co-Location Supplementary Cooling System, caused by or arising from the negligence or breach of its obligations under this Agreement by the Requesting Licensee, its officers, employees, directors, agents, or contractors.
3. Except as otherwise provided in this Agreement, OpenNet accepts no responsibility for any loss or damage caused by or as a result of the use of the Co-Location Supplementary Cooling System.
4. OpenNet may upgrade and/or replace the Co-Location Supplementary Cooling System with other equipment and upon delivery of the replacement equipment; all relevant provisions in these Specific Terms and Conditions that are applicable to the Co-Location Supplementary Cooling System shall apply to such replacement equipment.

ANNEX 12E

**SPECIFIC TERMS AND CONDITIONS FOR CO-LOCATION SUPPLEMENTARY
COOLING SERVICE AT TUAS**

1. Requesting Licensee accepts and acknowledges that the Co-Location Supplementary Cooling System has a set of technical operating conditions specified by the manufacturer set out in Table B.

Table B: Technical Operating Conditions

(i)	Minimum heat load required for each Co-Location Supplementary Cooling System in Tuas Central Office to operate	2.5kW
(ii)	Maximum heat load per rack each Co-Location Supplementary Cooling System can support up to	10kW

2. Requesting Licensee shall be fully responsible for any defect in the Co-Location Supplementary Cooling System, caused by or arising from the negligence or breach of its obligations under this Agreement by the Requesting Licensee, its officers, employees, directors, agents, or contractors.
3. Except as otherwise provided in this Agreement, OpenNet accepts no responsibility for any loss or damage caused by or as a result of the use of the Co-Location Supplementary Cooling System.
4. OpenNet may upgrade and/or replace the Co-Location Supplementary Cooling System with other equipment and upon delivery of the replacement equipment; all relevant provisions in these Specific Terms and Conditions that are applicable to the Co-Location Supplementary Cooling System shall apply to such replacement equipment.