

APPENDIX 1

**REQUIRED MODIFICATIONS TO SCHEDULE 12B – CO-LOCATION
SUPPLEMENTARY COOLING SERVICE**

SCHEDULE 12B

CO-LOCATION SUPPLEMENTARY COOLING SERVICE

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SCHEDULE 12B

CO-LOCATION SUPPLEMENTARY COOLING SERVICE

IDA Directed Modifications: It is noted that OpenNet has used the term “Co-Location Supplementary Cooling Service” interchangeably with the term “Supplementary Cooling Service” in this Schedule 12B. To avoid confusion, IDA requires OpenNet to adopt the use of either “Co-Location Supplementary Cooling Service” or “Supplementary Cooling Service” consistently in this Schedule 12B. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this Schedule 12B to incorporate the above.

The industry has commented that OpenNet should allow the relocation of the supplementary cooling system within the Central Office. IDA is of the view that it is fair and reasonable for OpenNet to allow re-location of the supplementary cooling system within the Central Office for operational flexibility. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this Schedule 12B, to specify clearly the terms and conditions governing the relocation of the supplementary cooling system within a Central Office.

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 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) before incurring such costs, OpenNet will provide Requesting Licensee with prior 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 costs which OpenNet seeks to recover from the Requesting Licensee (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 (i), a written quotation 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;
- (b) OpenNet shall obtain the prior approval of the Requesting Licensee to the written quotation under paragraph 1.2 (a)(ii). 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 approval under this clause 1.2(c)

IDA Directed Modifications: The industry commented that OpenNet must specify all cost components in the ICO instead of allowing OpenNet to impose new charges not specified in the ICO on the Requesting Licensees as currently proposed. IDA agrees that it is fair and reasonable to expect OpenNet to specify all cost components in the ICO to provide clarity and certainty to the Requesting Licensees on ICO charges, as the introduction of charges which are not within the contemplation of Requesting Licensees may adversely affect the Requesting Licensees' business case. Furthermore, where OpenNet has specified a cost component in this Schedule 12B, but the quantum of the charge is not defined in Schedule 15, OpenNet must adopt similar processes and procedures set out in Clause 1.2 ((a) to (d) inclusive) of Schedule 12 to provide a quote for the reasonable costs to be incurred by OpenNet and to obtain the Requesting Licensees' prior approval for the quote before incurring the costs, unless otherwise approved by IDA. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 1.2, to incorporate the above including removing language which allows OpenNet to introduce new charges.

1.3 The list of Central Offices and the technical specifications of the supplementary cooling system used is listed in Annex 12B. OpenNet may amend Annex 12B 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 grossly negligent, wilful or reckless breach of this ICO Agreement by OpenNet.

IDA Directed Modifications: As OpenNet is the party providing the Co-Location Service, it is fair and reasonable to expect that OpenNet must take all fair and reasonable precautions to maintain the Co-Location Space so as to prevent any damage to the Requesting Licensee's Co-Location Equipment arising from events such as fire, water leakage, air conditioning /mechanical ventilation failure and power fluctuation/interruption. In this respect, IDA does not consider it fair nor reasonable for OpenNet to exclude liability arising from its own negligent act, given that OpenNet is expected to exercise reasonable care as the provider of the Co-Location Service. Accordingly, IDA directs OpenNet to modify clause 1.5 to specify a more reasonable "negligent" standard for excluding liability as opposed to "grossly negligent".

- 1.6 The timeframes in this Schedule relating to provisioning work for Co-Location Supplementary Cooling Service to be undertaken by OpenNet under clauses 3.5 (Co-Location Supplementary Cooling Service Requests) and 4.3 (Project Studies) 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(a) 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.

IDA Directed Modifications: The reference to “clause 4.3” should be to “clause 4.1”. Accordingly, IDA directs OpenNet to modify clause 1.6 to correct the referencing error.

- 1.7 (a) OpenNet will provide the Service Level Guarantees in respect of provisioning of Co-Location Supplementary Cooling Service as set out in Annex 12A (**Provisioning SLG**). 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 in respect of claims made under Annex 12A.

The Requesting Licensee acknowledges that the relevant remedy provided under clause 1.7(a) 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.

IDA Directed Modifications: The industry commented that OpenNet should provide a Service Level Guarantee for the Site Preparation Work since it is a critical phase of the implementation of the Co-Location Supplementary Cooling Service. IDA agrees that OpenNet ought to provide a Service Level Guarantee to ensure the timely completion of the Site Preparation Work given that a delay by OpenNet would in turn cause a delay in the Requesting Licensee’s service delivery. The industry further commented that OpenNet should provide a Service Level Guarantee for the On-Site Response Time to the Requesting Licensees given the adverse impact to the Requesting Licensees of a delay by OpenNet in responding to a reported fault on the Co-Location Supplementary Cooling Service. IDA also agrees that it is reasonable for OpenNet to provide a Service Level Guarantee for the On-Site Response Time to provide assurance

that OpenNet will respond to a fault report within the On-Site Response Time. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 1.7(a) to provide a Service Level Guarantee to ensure the timely completion of the Site Preparation Work and provisioning of on-site service within the On-Site Response Time.

- 1.8 Requesting Licensee shall not bring in their own supplementary cooling system if OpenNet has deployed Co-Location Supplementary Cooling Service pursuant to this Schedule 12B.

IDA Directed Modifications: IDA refers to paragraph 8 of IDA's Explanatory Memorandum requiring OpenNet to negotiate in good faith a Customised Agreement with Requesting Licensees who wish to deploy their own supplementary cooling system in the Co-Location Space to allow them to do so. Accordingly, IDA directs OpenNet to remove clause 1.8 from this Schedule 12B.

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 requirements 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 specifications specified in Table A in Annex 12D and Table B in Annex 12E are met for the respective Central Office.

IDA Directed Modifications: IDA considers that there is merit to the industry comment that OpenNet must provide the Requesting Licensees with clarity on the details of the specific "technical requirements" which are applicable to the Co-Location Supplementary Cooling Service as opposed to the "technical specifications" which are mentioned in this clause 2.1, as OpenNet appears to be using the two terms interchangeably. Accordingly, IDA directs OpenNet to propose, for IDA's consideration, modifications to this clause 2.1 to clearly specify the "technical requirements" applicable to the service, if they are different from the said "technical specifications".

- 2.2 Supplementary Cooling Service shall be implemented according to the technical specifications specified in Table A and Table B in Annex 12D and Annex 12E respectively. Supplementary Cooling Service does not have a redundant backup system.

IDA Directed Modifications: IDA refers to paragraph 15 of IDA's Explanatory Memorandum requiring OpenNet to put in place robust measures to provide sufficient cooling in the Co-Location Space to ensure the proper functioning of the Requesting Licensees' Co-Location Equipment when the supplementary cooling system is not in service (in the event of a breakdown or during the maintenance of the supplementary cooling system). Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 2.2 to incorporate the above.

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 at the Co-Location Space that requires Supplementary Cooling Service;

IDA Directed Modifications: The industry commented that some Requesting Licensees had already installed their Co-Location Equipment at the Co-Location Space prior to OpenNet offering the Co-Location Supplementary Cooling Service. This scenario is currently not addressed in OpenNet’s proposed clause 3.3 (b) as it only refers to “Co-Location Equipment proposed to be installed”. IDA considers that it is necessary for OpenNet to address the aforementioned scenario in this Schedule 12B. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 3.3(b) to address the scenario where a Requesting Licensee is already co-located in OpenNet’s Central Offices when it applies for the Co-Location Supplementary Cooling Service.

- (c) the number of supplementary cooling units required; and

IDA Directed Modifications: The industry commented that Requesting Licensees were not in the position to determine the number of supplementary cooling units that a Requesting Licensee required and that OpenNet ought to be the party to propose the number of supplementary cooling units for the Requesting Licensee’s acceptance. The industry further proposed that OpenNet must provide clear and objective guidelines, formulae and methodology in this Schedule 12B to provide clarity on how it would determine the number of supplementary cooling units required by Requesting Licensees. IDA agrees that (i) OpenNet should be the party to determine the number of supplementary cooling units required by the Requesting Licensees as it involves the assessment of site conditions at the Co-Location Space, (ii) OpenNet should provide clear and objective criteria and methodology for determining the number of supplementary cooling units required by Requesting Licensees in this Schedule 12B to provide clarity to the Requesting Licensees so as to reduce the possibility of disputes and (iii) OpenNet should state the process for OpenNet to inform the Requesting Licensees of the number of supplementary cooling units which they are required to take up. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 3.3(c) and/or this Schedule 12B to incorporate the above.

- (d) 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 five (5) 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:

IDA Directed Modifications: The industry commented that OpenNet ought to be able to notify the Requesting Licensee of the outcome of a request for the Co-Location Supplementary Cooling Service within three (3) Business Days instead of OpenNet's proposed five (5) Business Days, i.e., similar to OpenNet's timeframe for responding to a request for the Co-Location Service under Schedule 12 to OpenNet's ICO, unless OpenNet can justify the need for the additional two (2) Business Days. IDA is of the view that three (3) Business Days is sufficient for OpenNet to perform the main activity of determining whether there is sufficient space to install the supplementary cooling system. IDA expects that OpenNet, as the provider of the Co-Location Supplementary Cooling Service, would closely monitor the forecast of the heat load in the Co-Location Space. Therefore, IDA notes that OpenNet would be apprised of the availability of space in the Co-Location Space prior to any demand for the service. It is not the case that OpenNet should start assessing space availability only when it receives a service request. OpenNet should also put in place suitable arrangements with the building owner so that it will be in the position to obtain information on the availability of space in the building housing the Co-Location Space (including but not limited to building rooftop

space) from the building owner immediately upon receiving a service request. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 3.5, to reduce the timeframe for notifying RLs of the outcome of the Request from five (5) Business Days to three (3) Business Days.

- (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 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.
- 3.7 Where OpenNet is unable to offer the Co-Location Supplementary Cooling Service due to unavailability, OpenNet shall take reasonable measures to inform Requesting Licensee when the service is available.

IDA Directed Modifications: In the event that OpenNet is unable to provide the Co-Location Supplementary Cooling Service to a Requesting Licensee due to unavailability of the service, OpenNet, as the provider of the Co-Location Service, must be responsible to put in place suitable alternative arrangements to ensure that the Requesting Licensee can continue to operate their Co-Location Equipment without disruption and shall indicate its commitment to do so in the ICO. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 3.7 to incorporate the above.

- 3.8 The Requesting Licensee acknowledges that the Co-Location Space allocated and the actual placement of the Co-Location Supplementary Cooling equipment shall be determined by OpenNet. OpenNet is not obligated to place the same Requesting Licensee's Co-Located Equipment adjacent to each other, provided that OpenNet will use its reasonable endeavours to accommodate any reasonable request for adjacent placement made by the Requesting Licensee.

IDA Directed Modifications: IDA notes that the allocation of Co-Location Space ought to be addressed in Schedule 12 (Co-Location Service), and should not be repeated in Schedule 12B to avoid confusion. Further, IDA understands that OpenNet will not be imposing any charges on the Co-Location Space utilised for the provision of the Co-Location Supplementary Cooling Service and IDA is of the view that OpenNet ought to make this clear in this Schedule 12B. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 3.8, to address the aforementioned.

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 twenty (20) 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 supplementary cooling unit and Site Preparation Works required at the Co-Location space.

IDA Directed Modifications: The industry commented that the duration of the Project Study should be reduced to ten (10) Business Days, as such a study should be straightforward. IDA agrees with the industry that OpenNet's proposed twenty (20) Business Days duration for the Project Study is overly long considering the scope of the project study provided by OpenNet to IDA which should not take more than ten (10) Business days. It is therefore fair and reasonable to expect OpenNet to complete the Project Study within a shorter timeframe of ten (10) Business Days. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 4.1 to incorporate the aforementioned.

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; and
- (b) the number of Business Days reasonably expected to complete the Site Preparation Work.

IDA Directed Modifications: IDA agrees with the industry's comment that there should be a deadline for OpenNet to complete the Site Preparation Work, which should not exceed the site preparation lead time set out in clause 6 of Annex 12D and clause 6 of Annex 12E of this Schedule 12B, so as to provide certainty to the industry. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 4.2(b) to incorporate the above.

IDA further agrees with the industry's comment that OpenNet should specify the work to be carried out by OpenNet under the Site Preparation Work (including the timeline governing the activities) and the associated charges as part of the deliverables of the Project Study, to provide clarity and certainty to the industry. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 4.2, to provide Requesting Licensees with an outline of the key tasks in the Site Preparation Work (including a timeline governing the activities) to be undertaken by OpenNet and the estimated charges for the Site Preparation Work (including a breakdown of the major components of the charges), if any, as part of the deliverables of the Project Study.

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 their confirmation in 5.1.

IDA Directed Modifications: IDA directs OpenNet to amend “after their confirmation in 5.1” to “after its confirmation in clause 5.1”.

5.3 OpenNet shall complete any Site Preparation Work within a period provided under clause 4.4 (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.

IDA Directed Modifications: The reference to “clause 4.4(b)” should be to “clause 4.2(b)”. In addition, as indicated in IDA’s Directed Modifications to clause 1.7(a), OpenNet should provide a Service Level Guarantee for the timeframe to complete the Site Preparation Work. Therefore, OpenNet should make clear in this clause 5.3 that the Requesting Licensee may seek a remedy from OpenNet if the Site Preparation Work is not completed in time. Accordingly, IDA directs OpenNet to modify clause 5.3 to correct the referencing error and to make it clear that the Requesting Licensee may seek a remedy from OpenNet if the Site Preparation Work is not completed in time.

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 CONDITION

IDA Directed Modifications: IDA directs OpenNet to amend “CONDITION” to “CONDITIONS”.

OpenNet is also directed to propose, for IDA’s approval, modifications to this clause 6, to make it clear that, subject to the Requesting Licensee paying to OpenNet the Monthly Recurring Charge specified in Schedule 15 (Charges), OpenNet shall bear all costs incurred by OpenNet as part of maintaining the Co-Location Supplementary Cooling Service, to provide clarity and certainty to the Requesting Licensee.

6.1 In addition to the terms and conditions of the Approved ICO and this Schedule 12B, the Requesting Licensee also agrees to comply with the following terms and conditions (where applicable)::

- (a) the specific terms and conditions for Supplementary Cooling Service at Central Offices except Tuas at Annex 12D and as amended by OpenNet from time to time;
- (b) the specific terms and conditions for Supplementary Cooling Service at Tuas at Annex 12E and as amended by OpenNet from time to time;

IDA Directed Modifications: OpenNet should not unilaterally amend the terms and conditions of this Schedule 12B without IDA's prior approval. IDA may seek the views of the Requesting Licensees when reviewing OpenNet's proposed amendments. Accordingly, IDA requires OpenNet to propose, for IDA's approval, modifications to this clause 6.1, to subject any OpenNet amendments to Annexes 12D and 12E to IDA's prior approval.

6.2 Upon completion of the Site Preparation Work, the Requesting Licensee shall pay a Monthly Recurring Charge and Power Charge in accordance with Schedule 15 (Charges).

IDA Directed Modifications: The industry commented that OpenNet should only impose the Monthly Recurring Charge and Power Charge on the Requesting Licensees from the final site inspection date and not upon the completion of the Site Preparation Work as proposed by OpenNet. IDA is of the view that it is fair and reasonable for OpenNet to only commence the term of the service and to impose the said charges from the final site inspection date, subject to the Requesting Licensees' not unreasonably delaying the final site inspection date, since the Co-Location Supplementary Cooling Service will only be available to the Requesting Licensees for use from the final site inspection date. If the Requesting Licensee is found to have unreasonably delayed the final site inspection date, IDA is of the view that it is fair and reasonable that OpenNet may commence imposing the said charges upon the completion of the Site Preparation Work. Accordingly, IDA requires OpenNet to propose, for IDA's approval, modifications to this clause 6.2, to incorporate the above.

6.3 The charges in Schedule 15 may be revised if there are no requests or inadequate requests to implement the supplementary cooling system after one (1) year from the date of offer of ICO Schedule 12B.

IDA Directed Modifications: OpenNet should not unilaterally alter the charges in Schedule 15 without seeking IDA's prior approval. Any revision in the charges in Schedule 15 must be subject to IDA's prior approval. Accordingly, IDA requires OpenNet to propose, for IDA's approval, modifications to this clause 6.3, to subject any OpenNet's revision to the charges for the Co-Location Supplementary Cooling Service to IDA's prior approval.

6.4 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;

IDA Directed Modifications: The industry has commented that the indemnification provision was too wide and unfairly favoured OpenNet as Requesting Licensees must indemnify OpenNet for losses and damages which result from OpenNet's negligence or breach. The industry expressed the view that Requesting Licensees should not be responsible if any actions, claims, proceedings, costs, losses or damages or expenses brought against OpenNet are caused by OpenNet's negligence or breach of this Schedule 12B. IDA agrees that it is fair and reasonable to expect OpenNet to be responsible for the consequences of its actions if they are due to OpenNet's negligence or breach of this Schedule 12B. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.4 to incorporate the above.

- (b) it must comply with any guidelines on the operational use of Supplementary Cooling Service and for accessing and working in the Central Office issued by OpenNet from time to time;

IDA Directed Modifications: The industry commented that OpenNet has not made available any "guidelines on the operational use of the Supplementary Cooling Service" and suggested that such guidelines should be subject to IDA's approval and/or to public consultation. IDA is of the view that any mandatory guidelines on the operational aspects of OpenNet's Co-Location Supplementary Cooling Service which OpenNet intends to issue should form part of this Schedule 12B, and be subject to IDA's prior approval and/or public consultation, so that the Requesting Licensees are informed of their

responsibility, since any non-compliance with the guidelines by the Requesting Licensee will result in a breach of the ICO. Accordingly, IDA directs OpenNet to make clear that any mandatory guidelines on the operational use of the Co-Location Supplementary Cooling Service will form part of this Schedule 12B and will be subject to IDA's prior approval.

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

6.5 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 of the Central Office.

IDA Directed Modifications: The reference to "Central Office" ought to be changed to "Co-Location Supplementary Cooling Service" since any concern with OpenNet's operation of the Central Office should be addressed in Schedule 12 (Co-Location Service), and not in this Schedule 12B. Accordingly, IDA directs OpenNet to modify this clause 6.5 to incorporate the aforementioned.

6.6 OpenNet shall be responsible for the maintenance of the supplementary cooling system installed under this Schedule.

IDA Directed Modifications: IDA agrees with the industry that there is merit for OpenNet to clearly define the term "supplementary cooling system" to provide clarity to the Requesting Licensees. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this Schedule 12B, to provide a definition for the term "supplementary cooling system".

6.7 If it is necessary to carry out any 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 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. 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.

6.8 OpenNet shall not be liable for any loss caused by such scheduled service interruption.

IDA Directed Modifications: The industry expressed the view that OpenNet should be responsible if any loss caused by the scheduled service interruption is a result of OpenNet's negligence or breach of this Schedule 12B. IDA is of the view that it is fair and reasonable to expect OpenNet to bear responsibility for the said loss in such a scenario. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.8, to incorporate the above.

6.9 Requesting Licensee, at its sole cost, shall,

IDA Directed Modifications: IDA directs OpenNet to modify the first line of this clause 6.9 to insert the word "The" in front of "Requesting Licensee".

(a) Notify OpenNet of any defects or problems discovered in the supplementary cooling service and provide OpenNet with the relevant information available pertaining to the defects or problems to facilitate correction or rectification;

IDA Directed Modifications: The industry commented that OpenNet, as the party that provides the Co-Location Supplementary Cooling Service, ought to be responsible to identify, correct and rectify any defect or problems in the service and that the Requesting Licensee is in no position to do so. Further, the industry indicated that the Requesting Licensee is incapable of providing OpenNet with information of such defects or problems to facilitate correction and/or rectification of the fault. IDA agrees with the industry that OpenNet should not place the responsibility of identifying any defect or problem in the Co-Location Supplementary Cooling Service and of providing relevant information to OpenNet pertaining to the defects or problems for fault rectification on the Requesting Licensee as it is only a user of the service, and it may not be capable of identifying any defect or problem with the service or providing OpenNet with the relevant information for fault rectification. However, IDA is of the view that where the Requesting Licensee becomes aware of the any defect or problem with the service, it ought to notify OpenNet of the defect or problem to expedite resolution of the defect or problem.

Similarly, where the Requesting Licensee possesses any information which will facilitate OpenNet's fault rectification, the Requesting Licensee also ought to provide such information to OpenNet. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.9(a) to incorporate the above.

- (b) Not alter, modify or damage the supplementary cooling system in any way whatsoever or permit the supplementary cooling system to be altered, modified, damaged or combined with any other equipment or system not approved by the manufacturer and OpenNet. Any breach by Requesting Licensee of this Clause 6.7(b) shall be the responsibility of the Requesting Licensee. Requesting Licensee shall bear all costs associated therewith;

IDA Directed Modifications: The reference to "Clause 6.7(b)" should be to "clause 6.9(b)". Accordingly, IDA requires OpenNet to modify clause 6.9(b) to correct the referencing and capitalisation error.

- (c) Not request, permit or authorise any person other than OpenNet or its duly authorised agents to provide maintenance services (or any part thereof) for the supplementary cooling system;
- (d) Provide adequate working space around the supplementary cooling unit for use by OpenNet or its duly authorised agents.

IDA Directed Modifications: IDA agrees with the industry's comment that the Requesting Licensee may not be able to control the space around the supplementary cooling unit since OpenNet was the party responsible for the placement of the supplementary cooling unit, and that the Requesting Licensee should not be responsible to provide adequate working space around the supplementary cooling unit. Accordingly, IDA directs OpenNet to remove the proposed clause 6.9(d).

- (e) Notify OpenNet of any malfunction, defects, failure or problems with the supplementary cooling system immediately upon Requesting Licensee becoming aware of same.

6.10 OpenNet reserves the right to make any modifications (which include installations, alterations, enhancement, upgrades or replacement works) ("Modifications") to the supplementary cooling system/s or part thereof from time to time and OpenNet shall, where possible, use commercially reasonable

endeavours to ensure the performance of the Supplementary Cooling Service is maintained.

IDA Directed Modifications: The industry commented that OpenNet should be responsible for any modifications made to the supplementary cooling system and should ensure that the modifications do not adversely affect the performance of the Co-Location Supplementary Cooling Service and/or OpenNet's obligations under this Schedule 12B. IDA agrees that it is fair and reasonable to expect OpenNet, as the provider of the Co-Location Supplementary Cooling Service, to use "reasonable endeavours" instead of mere "commercially reasonable endeavours" to ensure that the performance of the Co-Location Supplementary Cooling Service is maintained, at the very least, after any modifications to the system. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.10 to incorporate the above.

6.11 OpenNet shall use commercially reasonable efforts to minimize the interruption, interference or impairment of the Supplementary Cooling Service caused by the implementation of any Modifications, but shall not be liable for any losses, damages or costs whatsoever that may be suffered or incurred by Requesting Licensee or any other person by reason thereof.

IDA Directed Modifications: The industry commented that OpenNet should be responsible for any modifications made to the supplementary cooling system and should ensure that the modifications do not adversely affect the performance of the Co-Location Supplementary Cooling Service and/or OpenNet's obligations under Schedule 12B. IDA is of the view that it is fair and reasonable to expect OpenNet, as the provider of the Co-Location Supplementary Cooling Service, to use "reasonable endeavours" instead of mere "commercially reasonable efforts" to minimise the disruption to the Co-Location Supplementary Cooling Service during the implementation of any modifications to the system. Furthermore, OpenNet must be responsible for any losses, damages or costs that arise from the modifications due to OpenNet's negligence or breach of the ICO. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.11 to incorporate the above.

6.12 There shall be no compensation payable to Requesting Licensee and OpenNet shall not be liable to Requesting Licensee or any other person in the event of such supplementary cooling system(s) Modification.

IDA Directed Modifications: The industry commented that OpenNet should be responsible for any modifications made to the supplementary cooling system and should ensure that the modifications do not adversely affect the performance of the Co-Location Supplementary Cooling Service and/or OpenNet's obligations under Schedule 12B. IDA is of the view that it is fair and reasonable to expect OpenNet, as the provider of the Co-Location Supplementary Cooling Service, to be liable to compensate the Requesting Licensee or any other person if OpenNet had acted negligently or had breached the ICO. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.12 to incorporate the above.

6.13 At any time during the Term of License, a supplementary cooling system is deemed to have reached its End of Life ("End of Life") if :-

- (a) it has reached the end of its useful economic life as advised by the supplementary cooling system(s) manufacturer; or
- (b) a major technical fault happens and it is no longer commercially viable to maintain the supplementary cooling system

IDA Directed Modifications: IDA is of the view that there is merit in providing further details on the events which will cause the supplementary cooling system to reach its End of Life, to provide clarity to Requesting Licensees and to prevent possible disputes. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6.13 to incorporate the above.

7. FAULT REPORTING AND CLEARING

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

IDA Directed Modifications: IDA is of the view that Requesting Licensees are not in a position to determine whether the source of the fault lies with the Co-Location Supplementary Cooling Service since the Requesting Licensees do not operate the Supplementary Cooling Service. However, IDA believes that Requesting Licensees should ensure that the source of fault does not lie with the Requesting Licensees' own equipment before reporting the fault to OpenNet. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 7.1 to incorporate the above.

- 7.2 OpenNet may respond with an on-site service within the On-Site Response Time (as defined hereunder).
- 7.3 Subject to clause 6.7, 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 the designated Hotline by authorised personnel of Requesting Licensee.

IDA Directed Modifications: The industry has commented that besides the designated Hotline, OpenNet should provide an alternative means for Requesting Licensees to report a fault in the Co-Location Supplementary Cooling Service to OpenNet. IDA is of the view that the ICO should minimally provide for both OpenNet and the Requesting Licensees to establish a Fault Reporting and Control Centre (“FCC”) (which should be available twenty-four (24) hours a day, seven (7) days a week) to act as a single point of contact for the reporting, management and clearing of faults in the Co-Location Supplementary Cooling Service, in line with the other ICO services. Accordingly, IDA directs OpenNet to provide, for IDA’s approval, modifications to clause 7, to minimally provide for the establishment of an FCC for the Co-Location Supplementary Cooling Service.

In addition, IDA agrees with the industry that the wording “Subject to clause 6.7” ought to be deleted as clause 6.7 does not seem to have any bearing on this clause 7.3, and accordingly directs OpenNet to delete the said wording from this clause 7.3.

- 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 the Hotline of the Request by Requesting Licensee.

IDA Directed Modifications: As indicated in IDA’s Directed Modifications to clause 1.7(a), OpenNet should provide a Service Level Guarantee for providing the on-site service within the On-site Response Time. Therefore, OpenNet should make clear in this clause 7.4 that the Requesting Licensee may seek a remedy from OpenNet if OpenNet did not provide the on-site service within the On-Site Response Time. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 7.4 to incorporate the above.

7.5 The time taken to resolve a fault request shall depend on the nature of the problem and the availability of any supplementary cooling system parts that require replacement.

IDA Directed Modifications: IDA is of the view that it is fair and reasonable to expect OpenNet to use reasonable efforts to procure any supplementary cooling system parts that require replacement to provide assurance to the Requesting Licensees that the fault will be rectified without unnecessary delays. In addition, as indicated in IDA's Directed Modifications to clause 1.7(a), OpenNet should provide a Service Level Guarantee for providing the on-site service within the On-site Response Time. Therefore, OpenNet should make clear in this clause 7.5 that the Requesting Licensee may seek a remedy from OpenNet if OpenNet does not provide the on-site service within the On-Site Response Time. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 7.5 to incorporate the above.

7.6 OpenNet accepts no liability whatsoever for any loss or damage caused by the fault to the supplementary cooling system or any property of Requesting Licensee or any third party howsoever caused or arising.

IDA Directed Modifications: The industry commented that it is unreasonable for OpenNet to disclaim all liabilities for any loss or damage caused by the fault to the supplementary cooling system. IDA is of the view that that it is unfair for OpenNet to disclaim its responsibility for any losses or damage caused by the fault, if the fault is a result of OpenNet's negligence or breach of this Schedule 12B. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 7.6 such that OpenNet will be liable for any loss or damage caused by the said fault, if OpenNet is responsible for causing the fault.

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 of completion of the Site Preparation Work (**Commencement Date**) and continues for the term of eight (8) years , until the earlier of any of the following events:

- (a) either party terminates the Co-Location Supplementary Cooling Service in accordance with clause 9 and clause 8.2 of this Schedule;

IDA Directed Modifications: The reference to “clause 9” should be to “clause 10”. In addition, as indicated in IDA’s Directed Modifications to clause 6.2, IDA is of the view that it is fair and reasonable to expect OpenNet to only commence the term of the Co-Location Supplementary Cooling Service and to impose the associated charges from the final site inspection date since the service will only be available to the Requesting Licensees for use from the final site inspection date, subject to the Requesting Licensee not unreasonably delaying the final site inspection date. If the Requesting Licensee is found to have delayed the final site inspection date, IDA is of the view that it is fair and reasonable that OpenNet may commence the term of the service and to impose the charges after the completion of the Site Preparation Work. Accordingly, IDA requires OpenNet to propose, for IDA’s approval, modifications to this clause 8.1, to incorporate the above.

- (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 License, if any of or all the supplementary cooling systems reach their End of Life, OpenNet shall:

- (a) offer Requesting Licensee with prior reasonable notice the same or similar services as those contemplated under this Schedule 12B by using new, additional or replacement system/s on revised specifications, price, terms and conditions (“Offer”);
- (b) Inform Requesting Licensee of operational implementation assistance required from the Requesting Licensee to transit to the new, additional or replacement system/s.

Upon receipt of the Offer from OpenNet, Requesting Licensee shall, within 21 days thereof, either confirm acceptance of or reject the Offer. Any failure by Requesting Licensee to confirm or reject the Offer shall be deemed a rejection of the Offer by Requesting Licensee. Upon rejection of the Offer by Requesting Licensee, the licence of Co-Location Supplementary Cooling Service will be terminated and the last day of the licence of Co-Location Supplementary Cooling Service shall be the last day of the End of Life termination notice. Requesting

Licensee shall be liable to and shall pay OpenNet the Monthly Recurring Charges and Power Charge specified in Schedule 15 (Charges) up to and including the last day of the End of Life termination notice and there shall be no refund of any monies paid by Requesting Licensee prior to or during the notice period.

IDA Directed Modifications: The industry was of the view that it was unfair and unreasonable for OpenNet to pass the risks of an “End of Life” event to the Requesting Licensees. The industry also expressed the concern that OpenNet had reserved the right in clause 8.2 to unilaterally alter the terms and conditions under which it provides the Co-Location Supplementary Cooling Service under the ICO. The industry expressed the view that any changes to the ICO ought to be subject to the review and modifications procedures and provisions pursuant to sections 10, 11 and 12 of the NetCo Interconnection Code 2009. The industry requested that clause 8.2 should be amended to state that (i) if OpenNet was aware that the supplementary cooling system will reach its “End of Life”, OpenNet must provide sufficient notice to the Requesting Licensees; (ii) at the time of notice, OpenNet must propose new, additional or replacement system(s) and any revised specifications, prices, terms and conditions; (iii) OpenNet shall seek and incorporate the comments of affected Requesting Licensees in the proposal; and (iv) OpenNet shall submit the proposal for IDA’s approval and offer the amended Co-Location Supplementary Cooling Service on the terms and conditions approved by IDA. In addition, the industry indicated that it was impractical that Requesting Licensees must either accept the unilateral variation of the Co-Location Supplementary Cooling Service or be left with no service. IDA is of the view that OpenNet should only be allowed to address any “End of Life” risks in the ICO to the extent that OpenNet is not responsible for the supplementary cooling system reaching its “End of Life”. IDA agrees that OpenNet must not unilaterally vary the terms and conditions of an ICO service without seeking IDA’s approval, and that sufficient notice must be given if OpenNet is aware that the supplementary cooling system will reach “End of Life”. IDA further agrees that it is impractical that a Requesting Licensee will be left with no Co-Location Supplementary Cooling Service if it does not accept OpenNet’s proposal. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 8.2 to state that (i) if OpenNet is aware or ought reasonably become aware that the supplementary cooling system will reach its “End of Life”, OpenNet must provide at least six (6) months’ notice, or otherwise as much notice as is reasonably practicable, to the Requesting Licensees; (ii) at the time of notice, OpenNet shall propose new, additional or replacement system(s) and any revised specifications, prices, terms and conditions; (iii) OpenNet shall consult the affected Requesting Licensees on the proposal and submit the proposal

incorporating the Requesting Licensees' comments to IDA for approval; and (iv) OpenNet shall offer the replacement Co-Location Supplementary Cooling Service on the terms and conditions approved by IDA. OpenNet should also make it clear that OpenNet should only address any "End of Life" risks in the ICO to the extent that OpenNet is not responsible for the supplementary cooling system reaching its "End of Life".

Further, IDA is of the view that if the "End of Life" event is caused by OpenNet's negligence or breach of the ICO, OpenNet must bear any reasonable charges and costs which Requesting Licensees have to bear as a result of the End of Life event.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 8.2 to incorporate the above.

8.3 The provision of the replacement service maybe by the same vendor or another vendor who may not fully meet the same specifications; the same type of equipment may not be available in the market. The new solution may require different set of site condition for operations. Hence the revised offering is subjected to Central Office site conditions (eg. sufficient floor space and overhead space in the Co-location space, space in the rooftop and power in the Central Office), requirement and technology obsolescence and/or availability at the time of replacement.

IDA Directed Modifications: IDA is of the view that it is fair and reasonable to expect OpenNet to take steps to ensure that the replacement Co-Location Supplementary Cooling Service is offered on at least equivalent prices, terms and conditions as the service that is due to be retired, and that no additional charges shall be imposed, unless there are justifiable reasons approved by IDA, to provide certainty to the Requesting Licensees. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 8.3 and clause 8.2, to incorporate the above.

9. SUSPENSION OF LICENCE

9.1 OpenNet may suspend the Requesting Licensee's Co-Location Supplementary Cooling Service licence and Co-Location 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 supplementary cooling system including but not limited to causing damage, interfering with or causing deterioration.

IDA Directed Modifications: The reference to “Co-Location Service licence” should be deleted since the suspension of the Co-Location Service Licence should be addressed in Schedule 12 (Co-Location Service), and not in this Schedule 12B. To improve the clarity of the drafting of this clause 9.1, OpenNet should also insert the wording “in the operation of the Co-Location Supplementary Cooling Service” at end of clause 9.1. Accordingly, IDA directs OpenNet to modify this clause 9.1 to incorporate the aforementioned.

9.2 If the suspension is the result of the Requesting Licensee’s fault:

- (a) the Requesting Licensee shall continue to pay the Monthly Recurring Charge and the Power Charge specified in Schedule 15 (Charges) during the period of suspension; and
- (b) OpenNet shall, upon the end of the suspension period, charge the Requesting Licensee a Reconnection Charge for the service reconnection works. OpenNet shall, within six (6) Business Days from the end of the suspension period, provide to the Requesting Licensee a written quotation for the Reconnection Charge. The Requesting Licensee shall, within ten (10) Business Days from the date of the quotation, inform OpenNet in writing whether it accepts the quotation. If the Requesting Licensee does not (for any reason whatsoever) reject the quotation in writing within ten (10) Business Days from the date of the quotation, OpenNet shall be entitled to proceed with the service reconnection works and recover from the Requesting Licensee the Reconnection Charge as set out in the quotation. The Requesting Licensee may, in order to facilitate the reconnection, at any time prior to the end of the suspension period choose to accept the Reconnection Charge that OpenNet will impose, without the need for a quotation by OpenNet.

IDA Directed Modifications: IDA understands that the reconnection work contemplated in this clause 9.2(b) is straightforward and only involves turning on the Co-Location Supplementary Cooling Service which was turned off when the service was suspended. IDA is therefore of the view that it is unnecessary and administratively cumbersome for the Reconnection Charge to be governed by a quotation process. However, OpenNet should specify a fixed charge for reconnection work in the ICO to provide clarity and certainty to the Requesting Licensees. Accordingly, IDA directs OpenNet to modify this clause 9.2(b) to remove the said quotation process and to offer a fixed charge for the reconnection work.

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

IDA Directed Modifications: The industry commented that OpenNet had extensive rights to immediately terminate the Co-Location Supplementary Cooling Service, and that Requesting Licensees ought to be given reciprocal rights to terminate the service in certain instances. IDA agrees that it is fair and reasonable that this Schedule 12B should provide reciprocal rights for Requesting Licensees to immediately terminate the Co-Location Supplementary Cooling Service if (a) the Co-Location Supplementary Cooling Service has become unsafe for its purpose; (b) the Central Office has become unfit for its purpose; or (c) OpenNet's right to own, maintain or operate the Central Office is revoked, terminated or expired, as the Requesting Licensees are not at fault in each of the scenarios.

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).

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 8.1 of this Schedule, and the Requesting Licensee fails to rectify the fault resulting in the suspension within a period of sixty (60) Calendar Days from the date of suspension;

IDA Directed Modifications: The reference to "clause 8.1" should be to "clause 9.1". Accordingly, IDA directs OpenNet to modify clause 10.2(b) to correct the referencing error.

- (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;
- (e) the Central Office has become unfit for its purpose; or
- (f) OpenNet's right to own, maintain or operate the Central Office is revoked or terminates or expires.

10.3 OpenNet may terminate the licence of Co-Location Supplementary Cooling Service on ten (10) Business Days prior written notice, if the Requesting Licensee removes or abandons its Co-Location Equipment and the Requesting Licensee did not dispute such written notice by OpenNet.

IDA Directed Modifications: IDA directs OpenNet to correct the typographical error in clause 10.3 by amending "Business Days prior written notice" to "Business Days' prior written notice".

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 prior notice.

IDA Directed Modifications: IDA directs OpenNet to correct the typographical error in clause 10.5 by amending “one (1) month prior notice” to “one (1) month’s prior notice”.

- 10.6 Upon expiry or termination of the licence of Co-Location Supplementary Cooling Service:

- (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. For the avoidance of doubt, high heat load Co-Location Equipment are Co-Location Equipment at the Co-Location Space that exceed the head load limit specified in clause 1.5.3 under Schedule 12;

IDA Directed Modifications: The industry commented that there should not be a need for Requesting Licensees to remove the high heat load Co-Location Equipment as long as the heat load of the Requesting Licensee’s Co-Location Equipment is reduced to meet the level specified in clause 1.5.3 under Annex 12D of Schedule 12. IDA agrees that it is unnecessary for the Requesting Licensee to discontinue the use of or remove all its high heat load Co-Location Equipment as long as the heat load of the Co-Location Equipment per rack is reduced to meet the level specified in clause 1.5.3 under Annex 12D of Schedule 12. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clause 10.6(a) and clause 10.7 to incorporate the aforementioned.

In addition, the reference to “clause 1.5.3 under Schedule 12” should be to “clause 1.5.3 under Annex 12D of Schedule 12”. Accordingly, IDA directs OpenNet to modify clause 10.6(a) to correct the referencing error.

- (b) OpenNet shall reinstate the Co-Location Space and recover/reinstate all cables/supports/opening and recover the cost of such reinstatement 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. The Requesting Licensee shall pay to OpenNet such costs notified to it by OpenNet. 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, other than in circumstances where the Requesting Licensee's discontinuation of the use of the Co-Location Equipment is a direct result of OpenNet's decommissioning of the Central Office under this Schedule 12, or where the termination occurs as a result of OpenNet's fault; and

IDA Directed Modifications: The industry commented that the cost of reinstating the Co-Location Space to be recovered from the Requesting Licensee must be reasonable. IDA agrees that it is fair and reasonable to expect OpenNet to only recover the cost of reinstatement which it has reasonably incurred from the Requesting Licensee, to avoid imposing excessive charges on the Requesting Licensee. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 10.6(b) to incorporate the aforementioned. In addition, to improve the clarity of the drafting of this clause 10.6(b), IDA directs OpenNet to modify this clause 10.6(b) as follows:-

“OpenNet shall reinstate the Co-Location Space and recover/reinstate all cables/supports/opening. Other than in circumstances where the Requesting Licensee's discontinuation of the use of the Co-Location Equipment is a direct result of OpenNet's decommissioning of the Central Office under Schedule 12, or where the termination occurs as a result of OpenNet's fault, OpenNet shall recover the cost of such reinstatement 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. The Requesting Licensee shall pay to OpenNet such costs notified to it by OpenNet. 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, other than in circumstances where the Requesting Licensee's discontinuation of the use of the Co-Location Equipment is a direct result of OpenNet's decommissioning of the Central Office under this Schedule 12, or where the termination occurs as a result of OpenNet's fault; 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.

IDA Directed Modifications: IDA agrees with the industry that OpenNet should add the wording “, except where the termination is pursuant to clauses 8.1(b), 8.1(c), 10.2(d), 10.2(e), 10.2(f), 10.4, or where the termination is initiated by the Requesting Licensee pursuant to clause 10.1(a)” as the Requesting Licensees should not be required to pay OpenNet the charges for the remainder of the Co-Location Supplementary Cooling Service term if the termination of the service is not due to the Requesting Licensees' fault. Therefore, IDA directs OpenNet to modify clause 10.6(c) accordingly.

10.7 If the Requesting Licensee fails to discontinue the use of its Co-Location Equipment and/or remove its Co-Location Equipment in accordance with clause 10.6(a), OpenNet may at its sole discretion proceed to remove and/or dispose of the Requesting Licensee's Co-Location Equipment. OpenNet shall notify the Requesting Licensee of the costs payable by the Requesting Licensee prior to OpenNet's removal and/or disposal of the Requesting Licensee's Co-Location Equipment. The Requesting Licensee shall pay to OpenNet such costs notified to it by OpenNet, including the cost of disposing the Co-Location Equipment. For the avoidance of doubt, OpenNet does not require the Requesting Licensee's approval of the costs, and may proceed to remove and/or dispose of the Requesting Licensee's Co-Location Equipment once 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 work undertaken by OpenNet.

IDA Directed Modifications: IDA considers it fair and reasonable that OpenNet provides the Requesting Licensees with sufficient prior notification of the removal and/or disposal of the high heat load Co-Location Equipment, where possible, to provide the Requesting Licensees with an opportunity to remove the said equipment at their own cost. In addition, OpenNet should only recover those costs which are reasonably incurred from the Requesting Licensees. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 10.7 to incorporate the aforementioned.

10.8 Upon termination of the licence of Co-Location Supplementary Cooling Service, the Requesting Licensee shall have physical access to the Central Office for a

reasonable period, solely for the purposes of fulfilling its obligation under clause 10.6(a) to remove its Co-Location Equipment, after which any physical access granted to the Central Office shall also be terminated. The Requesting Licensee shall comply with all associated procedures for such physical access, and physical access charges shall apply.

IDA Directed Modifications: As the Co-Location Service may not have been terminated when the Co-Location Supplementary Cooling Service is terminated, the Requesting Licensee's physical access to the Central Offices should not be automatically terminated after the termination of the Co-Location Supplementary Cooling Service. Furthermore, the termination of physical access to the Central offices should be addressed in Schedule 12 (Co-Location Service), instead of this Schedule. Accordingly, IDA directs OpenNet to delete this clause 10.8 or propose, for IDA's approval, modifications to this clause 10.8 to reflect the aforementioned.

ANNEX 12A

SERVICE LEVEL GUARANTEES

IDA Directed Modifications: IDA refers to IDA's Directed Modifications to clause 1.7(a) of Schedule 12B and accordingly directs OpenNet to propose, for IDA's approval, modifications to this Annex 12A of Schedule 12B to provide a Service Level Guarantee for the timely completion of the Site Preparation Work and provisioning of on-site service within the On-Site Response Time.

1. REBATES FOR CO-LOCATION SUPPLEMENTARY COOLING REQUEST TIMEFRAMES

OpenNet shall provide Service Level Guarantees in respect of the response to a request for Co-Location Supplementary Cooling Service within 5 Business Days from the date of the request.

IDA Directed Modifications: IDA refers to IDA's Directed Modifications to clause 3.5 and accordingly directs OpenNet to modify this clause 1 of Annex 12A to reduce the timeframe for notifying the Requesting Licensees of the outcome to a request for Co-Location Supplementary Cooling Service from five (5) Business Days to three (3) Business Days.

Missed notification timeframe as to response to Co-Location Supplementary Cooling Request following detailed processing (clause 3.6) 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

IDA Directed Modifications: *The reference to “clause 3.6” should be to “clause 3.5 of Schedule 12B”. Furthermore, it is unclear what OpenNet means by the term “detailed processing” in the header of the table in clause 1. Accordingly, IDA directs OpenNet to modify clause 1 of Annex 12A to correct the referencing error and to clarify the meaning of the term “detailed processing”.*

2. REBATES FOR PROJECT STUDY TIMEFRAMES

OpenNet shall provide Service Level Guarantees in respect of the completion of Project Study within 20 Business Days from the date of the request.

Missed timeframe for completion of Project Study (clause 4.1) 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

IDA Directed Modifications: *IDA refers to IDA’s Directed Modifications to clause 4.1 and accordingly directs OpenNet to modify this clause 2 of Annex 12A to reduce the duration of the Project Study from twenty (20) Business Days to ten (10) Business Days.*

The reference to “clause 4.1” should be to “clause 4.1 of Schedule 12B”. Accordingly, IDA directs OpenNet to modify clause 2 of Annex 12A to improve the clarity of the table heading.

3. 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 specifications for supplementary cooling system
1	Tuas Telephone Exchange	Refer to technical specifications specified in Table B in Annex 12E
2	Jurong West Telephone Exchange	Refer to technical specifications 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

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)] _____

IDA Directed Modifications: As explained in IDA's Directed Modifications to clause 3.3(b), in addition to new Co-Location Equipment that will be installed by the Requesting Licensees at the Co-Location Space, the Co-Location Supplementary Cooling Service should also be made available to Co-Location Equipment that has already been installed at the Co-Location Space, as some Requesting Licensees have already installed their Co-Location Equipment in the Co-Location Space prior to OpenNet offering the Co-Location Supplementary Cooling Service in the ICO. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this service request form to address the scenario where a Requesting Licensee is already co-located in OpenNet's Central Offices when it applies for the Co-Location Supplementary Cooling Service.

Number of supplementary cooling units required : _____ [Number] _____

IDA Directed Modifications: As explained in IDA's Directed Modifications to clause 3.3(c), OpenNet should be the party to determine the number of supplementary cooling units required instead of the Requesting Licensee. Accordingly, IDA directs OpenNet to delete the requirement to the Requesting Licensee to provide the number of supplementary cooling units required from this service request form.

Sign : _____ Name of Requesting Licensee: _____

Name : _____ [Company Name]

Designation : _____

Contact Number : _____ Company Stamp : _____

Fax Number : _____

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

ANNEX 12D

SPECIFIC TERMS AND CONDITIONS FOR SUPPLEMENTARY COOLING SERVICE AT CENTRAL OFFICES EXCEPT TUAS

1. OpenNet will use its best endeavors to complete the Service provisioning in accordance with the lead-time set out in Clause 4.4 (b). Requesting Licensee must not, in OpenNet's sole opinion, cause or occasion any unnecessary delay to OpenNet's commencement or completion of the Service provisioning. OpenNet reserves the right to, where any Service provisioning is not completed within the lead-time due to a delay caused or occasioned by Requesting Licensee, at its own discretion, impose the monthly recurring charges on Requesting Licensee from the date anticipated for the service commencement communicated to Requesting Licensee had the delay not occurred.

IDA Directed Modifications: IDA notes that "Clause 4.4(b)" does not exist in this Schedule 12B. Furthermore, IDA refers to IDA's Directed Modifications to clause 1.7(a) of this Schedule 12B directing OpenNet to provide a Service Level Guarantee for the completion of the Site Preparation Work. Accordingly, IDA directs OpenNet to remove the first line of this clause 1 of Annex 12D to remove the statement that OpenNet will only use its best endeavours to complete service provisioning within the committed service provisioning timeframe.

In addition, IDA agrees with the feedback from the industry that OpenNet's opinion as to whether the Requesting Licensee has caused or occasioned any unnecessary delay to the OpenNet's commencement or completion of service provisioning, as well its discretion to impose the Monthly Recurring Charge on the Requesting Licensee from the anticipated date of service commencement, must be subject to the requirement of reasonableness. For the avoidance of doubt, unless the delay in service provisioning is due to the Requesting Licensee's fault, OpenNet should only commence the term of the Co-Location Supplementary Cooling Service and the associated charges from the final site inspection date (refer to IDA's Directed Modifications to clauses 6.2 and 8.1). Finally, IDA is of the view that this clause 1 of Annex 12D should be removed and merged with clauses 6.2 and 8.1 of Schedule 12B respectively as the concern about Requesting Licensees delaying OpenNet's service provisioning applies to all Central Offices. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to subject the said OpenNet opinion and discretion to the requirement of reasonableness, and to remove and merge this clause 1 of Annex 12D with clauses 6.2 and 8.1 of Schedule 12B respectively.

2. Requesting Licensee accepts and acknowledges that the supplementary cooling system has a set of environmental conditions and technical specifications specified by the manufacturer as set out in Table A.

Table A: Environmental Conditions and Technical Specifications

(i)	Minimum heat load required for 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 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

Requesting Licensee acknowledges and accepts that all responsibility of ensuring that the supplementary cooling system is operated within the environmental conditions and parameters set out in Table C shall be borne by Requesting Licensee. OpenNet expressly disclaims all liability and obligation in relation to the maintenance of the Environmental Conditions and Parameters set out in this Clause 2 and Table A.

IDA Directed Modifications: IDA agrees with the industry that the “Environmental Conditions and Technical Specifications” as set out in Table A are largely not within the control of a single Requesting Licensee and that therefore it is impossible and unreasonable to expect a Requesting Licensee to bear all responsibility for ensuring that the supplementary cooling system is operated within the environmental conditions and parameters specified in Table A, Annex 12D on its own. To elaborate, a Requesting Licensee on its own may not be able to ensure that the total heat load in the Central Office meets the minimum heat load and minimum number of overhead units required for the supplementary cooling system to operate in the Central Office as specified in items (i) and (iii) since the heat load generated by a Requesting Licensee on its own may not be sufficient to meet the respective minimum thresholds required. Similarly, a Requesting Licensee on its own is unable to ensure that the cooling system is operated within the maximum number of overhead units specified in item (iv) since the total number of overhead units in a Central

Office is made up of the respective overhead units subscribed by all the Requesting Licensees in the Central Offices which require the supplementary cooling service. In addition, IDA is the view that the “Environmental Conditions and Technical Specifications” specified in items (i), (iii) and (iv) are more appropriately and accurately considered situations permitting OpenNet to reject a service order, and it is not necessary for the Requesting Licensees or OpenNet to be responsible for them. Lastly, IDA notes that OpenNet has erroneously termed “Table A” as “Table C” in the second last sentence of this clause. Accordingly, IDA requires OpenNet to propose, for IDA’s approval, modifications to this clause 2 of Annex 12D, to remove the proposed requirement that the Requesting Licensee must take responsibility for the environmental conditions and technical specifications specified in items (i), (iii) and (iv) and to replace OpenNet’s statement disclaiming its responsibility for the environmental conditions and technical specifications with appropriate language to make it clear that OpenNet may reject a service order in the event that item (i), (iii) or (iv) applies.

3. Requesting Licensee shall be fully responsible for any defect in the supplementary cooling system, caused or contributed to by the negligence or any other acts and omissions of Requesting Licensee, its officers, employees, directors, agents, contractors or assigns;

IDA Directed Modifications: IDA agrees with the industry that the scope of the Requesting Licensee’s obligation as proposed in clause 3 of Annex 12D is too wide and that it should be replaced with “Requesting Licensee shall be fully responsible for any defect in the supplementary cooling system caused by the negligence or breach of its obligations under this clause by the Requesting Licensee, its officers, employees, directors, agents, or contractors;”. Therefore, IDA directs OpenNet to modify this clause 3 of Annex 12D accordingly.

4. OpenNet accepts no responsibility for any loss or damage caused by or as a result of the use of the supplementary cooling system;

IDA Directed Modifications: As the provider of the Co-Location Supplementary Cooling Service, IDA expects OpenNet to be responsible for the supplementary cooling system in so far as any loss or damage to the system is caused by the actions or omissions of OpenNet including negligence and breach of the ICO on the part of OpenNet. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 4 of Annex 12D to incorporate the above.

5. OpenNet may upgrade and/or replace the 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 supplementary cooling system shall apply to such replacement equipment.
6. Where Requesting Licensee requests that OpenNet provision the service within a specific period OpenNet shall, in consultation with Requesting Licensee, determine the RFS date to complete the work, as the service provisioning lead-time will vary, depending on the number of add-on units required per Co-Loc site. The indicative standard site preparation lead times are set out in the table below:-

Service provisioning lead-time	Business Days
Initial setup	90
Per overhead unit add-on per site	50

IDA Directed Modifications: IDA agrees with the industry that clause 6 of Annex 12D appears to be inconsistent with clause 4.2(b) of this Schedule 12B. For example, the latter states that the Site Preparation Work period will be specified by OpenNet while the former indicates that it will be determined by OpenNet jointly with the Requesting Licensee. In addition, clause 6 of Annex 12D cites a scenario of a Requesting Licensee requesting OpenNet to provision the Co-Location Supplementary Cooling Service within a specific period. However, Schedule 12B as well as the service request form do not cater for such a scenario. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 6 of Annex 12D to remove the inconsistencies between clause 6 of Annex 12D and this Schedule 12B as highlighted above.

Furthermore, IDA is of the view that the table in clause 6 of Annex 12D does not provide the necessary details to enable Requesting Licensees to understand the service provisioning lead-time specified in the table. In particular, it is not clear whether “Initial setup” refers to the setup time for a single Central Office or all eight (8) Central Offices. If it is the latter, it is not clear what would be the setup time if a Requesting Licensee only requests the Co-Location Supplementary Cooling Service at a single Central Office. It is also unclear what the scope of the “Initial setup” is, i.e., whether it covers the setting up of the system for all six (6) minimum cooling units. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to the table in clause 6 of Annex 12D to improve its clarity.

Finally, IDA is of the view that it is unacceptable that the service provisioning lead-time is only provided on an indicative basis. OpenNet must provide certainty to the Requesting Licensees on the service provisioning timeframe for the Co-Location Supplementary Cooling Service as the Site Preparation Work is a critical phase in the implementation of the service. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6 of Annex 12D to provide a definitive and binding service provisioning lead-time.

ANNEX 12E

SPECIFIC TERMS AND CONDITIONS FOR SUPPLEMENTARY COOLING SERVICE AT TUAS

1. OpenNet will use its best endeavors to complete the Service provisioning in accordance with the lead-time set out in Clause 4.4 (b). Requesting Licensee must not, in OpenNet's sole opinion, cause or occasion any unnecessary delay to OpenNet's commencement or completion of the Service provisioning. OpenNet reserves the right to, where any Service provisioning is not completed within the lead-time due to a delay caused or occasioned by Requesting Licensee, at its own discretion, impose the monthly recurring charges on Requesting Licensee from the date anticipated for the service commencement communicated to Requesting Licensee had the delay not occurred.

IDA Directed Modifications: IDA notes that "Clause 4.4(b)" does not exist in this Schedule 12B. Furthermore, IDA refers to IDA's Directed Modifications to clause 1.7(a) of this Schedule 12B directing OpenNet to provide a Service Level Guarantee for the completion of the Site Preparation Work. Accordingly, IDA directs OpenNet to remove the first line of this clause 1 of Annex 12E to remove the statement that OpenNet will only use its best endeavours to complete service provisioning within the committed service provisioning timeframe.

In addition, IDA agrees with the feedback from the industry that OpenNet's opinion as to whether the Requesting Licensee has caused or occasioned any unnecessary delay to the OpenNet's commencement or completion of service provisioning, as well its discretion to impose the Monthly Recurring Charge on the Requesting Licensee from the anticipated date of service commencement, must be subject to the requirement of reasonableness. For the avoidance of doubt, unless the delay in service provisioning is due to the Requesting Licensee's fault, OpenNet should only commence the term of the Co-Location Supplementary Cooling Service and the associated charges from the final site inspection date (refer to IDA's Directed Modifications to clauses 6.2 and 8.1). Finally, IDA is of the view that this clause 1 of Annex 12E should be removed and merged with clauses 6.2 and 8.1 of Schedule 12B respectively as the concern about Requesting Licensees delaying OpenNet's service provisioning applies to all Central Offices. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to subject the said OpenNet opinion and

discretion to the requirement of reasonableness, and to remove and merge this clause 1 of Annex 12E with clauses 6.2 and 8.1 of Schedule 12B respectively.

2. Requesting Licensee accepts and acknowledges that the supplementary cooling system has a set of environmental conditions and technical specifications specified by the manufacturer set out in Table B.

Table B: Environmental Conditions and Technical Specifications

(i)	Minimum heat load required for each supplementary cooling system in Tuas Central Office to operate	2.5kW
(ii)	Maximum heat load per rack each supplementary cooling system can support up to	10kW

Requesting Licensee acknowledges and accepts that all responsibility of ensuring that the supplementary cooling system is operated within the Environmental Conditions and Parameters set out in Table D shall be borne by Requesting Licensee. OpenNet expressly disclaims all liability and obligation in relation to the maintenance of the Environmental Conditions and Parameters set out in this Clause 4.3(b) and Table D.

IDA Directed Modifications: IDA is of the view that a Requesting Licensee on its own may not be able to ensure that the total heat load in the Central Office meets the minimum heat load required for the supplementary cooling system to operate in the Central Office. In addition, IDA is of the view that the “Environmental Condition and Technical Specifications” specified in item (i) is more appropriately and accurately considered a situation permitting OpenNet to reject a service order, and it is not necessary for the Requesting Licensees or OpenNet to be responsible for it. Furthermore, IDA notes that OpenNet has erroneously referred to (i) “Table B” as “Table D” in the last two sentences of this clause and (ii) “Clause 2” as “Clause 4.3(b)” in the last sentence of this clause. Accordingly, IDA requires OpenNet to propose, for IDA’s approval, modifications to this clause 2 of Annex 12E, to remove (a) the proposed requirement that the Requesting Licensee must take responsibility for the environmental condition and technical specification specified in item (i), (b) OpenNet’s statement disclaiming its responsibility for the said environmental conditions and technical specifications and to replace it with appropriate language to make it clear that OpenNet may reject a service order in the event that item (i) applies, and (c) the referencing errors.

3. Requesting Licensee shall be fully responsible for any defect in the supplementary cooling system, caused or contributed to by the negligence or any other acts and omissions of Requesting Licensee, its officers, employees, directors, agents, contractors or assigns;

IDA Directed Modifications: IDA agrees with the industry that the scope of the Requesting Licensee’s obligation as proposed in clause 3 of Annex 12E is too wide and that it should be replaced with “Requesting Licensee shall be fully responsible for any defect in the supplementary cooling system caused by the negligence or breach of its obligations under this clause by the Requesting Licensee, its officers, employees, directors, agents, or contractors;”. Therefore, IDA directs OpenNet to modify this clause 3 of Annex 12E accordingly.

4. OpenNet accepts no responsibility for any loss or damage caused by or as a result of the use of the supplementary cooling system; and

IDA Directed Modifications: As the provider of the Co-Location Supplementary Cooling Service, IDA expects OpenNet to be responsible for the supplementary cooling system in so far as any loss or damage to the system is caused by the actions or omissions of OpenNet including negligence and breach of the ICO on the part of OpenNet. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to this clause 4 of Annex 12E to incorporate the above.

5. OpenNet may upgrade and/or replace the 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 supplementary cooling system shall apply to such replacement equipment.

6. Where Requesting Licensee requests that OpenNet provision the service within a specific period OpenNet shall, in consultation with Requesting Licensee, determine the RFS date to complete the work, as the service provisioning lead-time will vary, depending on the number of add-on units required per Co-Loc site. The indicative standard site preparation lead times are set out in the table below:-

Service provisioning lead-time	Business Days
Initial setup for each In-Row system in Tuas Co-loc site	90

IDA Directed Modifications: IDA agrees with the industry that clause 6 of Annex 12E appears to be inconsistent with clause 4.2(b) of Schedule 12B. For example, the latter states that the Site Preparation Work period will be specified by OpenNet while the former indicates that it will be determined by OpenNet jointly with the Requesting Licensee. In addition, clause 6 of Annex 12E cites a scenario of a Requesting Licensee requesting OpenNet to provision the Co-Location Supplementary Cooling Service within a specific period. However, Schedule 12B as well as the service request form do not cater for such a scenario. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6 of Annex 12E to remove the inconsistencies between clause 6 of Annex 12E and this Schedule 12B as highlighted above.

Finally, IDA is of the view that it is unacceptable that the service provisioning lead-time is only provided on an indicative basis. OpenNet must provide certainty to the Requesting Licensees on the service provisioning timeframe for the Co-Location Supplementary Cooling Service as the Site Preparation Work is a critical phase in the implementation of the service. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 6 of Annex 12E to provide a definitive and binding service provisioning lead-time.