# SCHEDULE 11 NBAP DP TO NBAP TP CONNECTION

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## **SCHEDULE 11**

## NBAP DP TO NBAP TP CONNECTION

# 1. SCOPE

This Schedule 11 sets out the terms and conditions under which OpenNet will provide the Requesting Licensee with a licence for Layer 1 Service (a service provided by OpenNet for the use of passive optical fibre cable) from a Non-Building Address Point Distribution Point (NBAP DP) to a NBAP Termination Point (NBAP TP) (NBAP DP to NBAP TP Connection).

1.1 This Schedule only applies to Requesting Licensees who are FBOs.

## 2. SERVICE LEVEL GUARANTEES

- OpenNet will provide the Service Level Guarantees in respect of the NBAP DP to NBAP TP Connection as set out in this Schedule. If OpenNet fails to meet any service activation period, Mean Time To Recovery or service level availability (collectively called the **Service Level Guarantees**) applicable to this Schedule and the failure to meet the Service Level Guarantees is solely caused by OpenNet, its contractors and/or suppliers, OpenNet will provide a remedy in the form of a rebate to the Requesting Licensee in accordance with:
  - (i) Clause 6.8 and any terms and conditions contained in this Schedule in respect of request and provisioning timeframes;
  - (ii) Clause 11.13 and any terms and conditions contained in this Schedule in respect of fault rectification timeframes; and
  - (iii) Clause 12.1 and any terms and conditions contained in this Schedule in respect of service level availability.
- 2.2 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. OpenNet will respond within (30) Calendar Days from date of claim stating whether the claim by

Requesting Licensee is: (a) valid for rebates; or (b) an invalid claim. Where OpenNet assessed that the Requesting Licensee's claim is invalid, OpenNet will explain its basis or require the Requesting Licensee to provide additional information. For valid claims submitted within the timeframe, OpenNet shall provide the rebate in its next Invoice

- 2.3 If the Requesting Licensee is entitled to a rebate pursuant to the claim made hereunder, 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.
- 2.4 The guarantee and rebates provided by OpenNet are:
  - (i) of an ex-gratia nature and personal to the Requesting Licensee and are non-transferable; and
  - (ii) subject to this Schedule.
- 2.5 Despite anything to the contrary in this section, if the Requesting Licensee qualifies for any claim, 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.
- 2.6 In addition to the specific terms and conditions of the Service Level Guarantees, the Service Level Guarantees shall not apply in any of the following circumstances:
  - (a) the NBAP DP to NBAP TP Connection is disconnected and/or reconnected by reason of it being suspended under the terms and conditions of this Schedule or ICO Agreement, except where the suspension is due to OpenNet's fault;
  - (b) fault due to any equipment, wiring and/or cabling owned or operated by the Requesting Licensee or on behalf of the Requesting Licensee;
  - (c) provision or restoration of the NBAP DP to NBAP TP Connection where any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by OpenNet; and (b) the Requesting Licensee has not contributed to any delay in

setting up the meeting. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken from the start of arranging any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded;

- (d) OpenNet is unable to obtain or maintain any licence or permission necessary to the provision or restoration of NBAP DP to NBAP TP Connection despite using its best endeavours to obtain expeditiously or maintain such licence or permission. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken by OpenNet to obtain or maintain any licence or permission necessary to the provision or restoration of the NBAP DP to NBAP TP Connection shall always be excluded. Provided that in the event that the Requesting Licensee raises a dispute as to whether OpenNet has used its best endeavours to obtain or maintain the licence/permission, OpenNet will provide evidence that it has used such best endeavours
- (e) OpenNet has difficulty accessing the NBAP DP or NBAP TP location;
- (f) delay in the provision or restoration of the NBAP DP to NBAP TP Connection caused by events beyond the reasonable control of OpenNet and its suppliers and contractors;
- (g) OpenNet network outages for which the Requesting Licensee has not reported a fault;
- (h) fault is reported by the Requesting Licensee but no fault is found or confirmed after due and careful investigation, and verification by OpenNet;
- (i) OpenNet is required to carry out scheduled service interruption and the Requesting Licensee has been informed in accordance with clause 9.5; or
- (j) OpenNet is required to carry out fibre diversion at the request of the Government Agencies, private developers or other relevant parties and the Requesting Licensee has been informed in accordance with clause 9.5.
- 2.7 If the Requesting Licensee disputes OpenNet's reason for rejection, its records and/or the amount of rebate, the Requesting Licensee shall not be entitled to be credited with any rebate until and unless the dispute has been resolved.

- 2.8 A failure by OpenNet to meet any Service Level Guarantee does not constitute a breach of the ICO Agreement or this Schedule.
- 2.9 The Requesting Licensee acknowledges that the relevant remedy provided under clause 2.1 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 the NBAP DP to NBAP TP Connection and shall be OpenNet's sole and exclusive liability to the Requesting Licensee for such failure.

# 3. SERVICE DESCRIPTION AND ACCESS POINTS

- 3.1 OpenNet will provide a licence for the NBAP DP to NBAP TP Connection to the Requesting Licensee with the following:
  - (a) one (1) fibre strand from the NBAP DP to the NBAP TP; and
  - (b) one (1) Patching Service at OpenNet's Fibre Distribution Frame (**FDF**) at the NBAP DP.
- 3.2 The Requesting Licensee shall access the NBAP DP to NBAP TP Connection at OpenNet's FDF at the NBAP DP and at the NBAP TP.

# 4. ORDERING AND PROVISIONING PROCEDURE

- 4.1 (A) The Requesting Licensee shall submit its request for the NBAP DP to NBAP TP Connection (**Request**) to OpenNet on a Business Day in the form of Annex 11A stating, but not limited to the following information:
  - (a) the Customer's name and telephone number for the NBAP DP to NBAP TP Connection:
  - (b) the address of the NBAP DP and NBAP TP, and a map demonstrating the location of the NBAP DP and NBAP TP; and
  - (c) the Global Positioning System (GPS) coordinates, height (in metres, relative to ground level), and a broad description of the NBAP DP and NBAP TP locations.
  - (B)(i) As an alternative to submitting a Requesting using the form Annex 11A under clause 4.1(A), the Requesting Licensee may also submit its Request for NBAP DP to

NBAP TP Connection (Request) to OpenNet via the OpenNet Platform, stating, but not limited to the following information:

- (a) the Customer's name and telephone number for the NBAP DP to NBAP TP Connection;
- (b) the address of the NBAP DP and NBAP TP, and a map demonstrating the location of the NBAP DP and NBAP TP; and
- (c) the Global Positioning System (GPS) coordinates, height (in metres, relative to ground level), and a broad description of the NBAP DP and NBAP TP locations.

For Request submitted via the Service Portal, the Requesting Licensee shall select an available date. Upon successful submission of the Request via the Service Portal, it will provide a Request acknowledgement.

Alternatively for Request submitted via the OpenNet Platform APIs, the Requesting Licensee shall first query the available time slots and use the applicable selected timeslot related for submission of Request. Upon successful submission of the Request via the OpenNet Platform APIs, it will provide a Request acknowledgement.

(B)(ii) Following clause 4.1(B)(i), for orders submitted via the OpenNet Platform, when available, the Requesting Licensee is able to modify the contact details of End-User subject to the requirement that the date of modification is within three (3) Business Days from the date of submission of Request. The OpenNet Platform will notify the Requesting Licensee if the contact details have been successfully modified.

- 4.2 Relocation of the NBAP DP to NBAP TP Connection is not allowed.
- 4.3 Information relating to the Mandated Services will be available on OpenNet Platform, for access by the Requesting Licensee through secured means. The secured access to OpenNet Platform will require payment of a Per User Account Charge (specified in clause 14 of Schedule 15 (Charges)) for each user account created. Information relating to network outages will be sent to the Requesting Licensee via email or OpenNet Platform. The information relating to the Mandated Services and the information relating to network outages is available on the OpenNet Platform.

For information related to network outages, OpenNet shall include the following details in the written notification or via OpenNet Platform APIs to the Requesting Licensee:

- (a) Affected location;
- (b) Date of occurrence;
- (c) Time of occurrence (start & approximate end timings);
- (d) Cause of outage;
- (e) Steps taken to remedy the outage;
- (f) Steps (if any) required by Requesting Licensee to assist with rectification of outage;
- (g) Order Request Identifier of the affected orders; and
- (h) OpenNet's Network Operations Centre Contact Number.

For the avoidance of doubt, where OpenNet has imposed a Per User Account Charge on the Requesting Licensee for each user account created to allow the Requesting Licensee to access OpenNet Public Website, such Per User Account Charge shall not be re-imposed when the information relating to Mandated Services is made available on the OpenNet's Service Portal.

# 5. NBAP DP TO NBAP TP CONNECTION REQUEST

- 5.1 OpenNet shall process all Requests received for the NBAP DP to NBAP TP Connection on a 'first come, first served' basis.
- 5.2 For each Business Day, OpenNet shall process a combined total of no more than 710 or such other number (as may be revised from time to time in accordance with clause 5.2(i)) of Requests for Basic Mandated Services and Layer 1 Redundancy Services (Maximum Quota) from all Requesting Licensees, excluding Requests for Non-Residential End-User Connections. For avoidance of doubt, Requesting Licensee is able to select such dates made available from the OpenNet Platform and for which the Request is to be fulfilled except such Business Day where the Maximum Quota has been reached. OpenNet will process all Requests on a 'first come, first served' basis. The Maximum Quota is not applicable to requests for deactivation of any Connection.

- The Maximum Quota is subject to the review mechanism as described as (i) follows. If OpenNet finds that more than 95% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and October), OpenNet shall increase its daily quota for the quarter in which the review month occurs and the new quota shall be no less than 110% of the average demand over the preceding twelve (12) weeks. If OpenNet finds that less than 80% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and October), OpenNet may decrease its daily quota for the quarter in which the review month occurs and the new quota shall be no less than 110% of the average demand over the preceding twelve (12) weeks. Where applicable, in accordance with the foregoing, the revised prevailing Maximum Quota will take effect upon its publication on the Service Portal following the conclusion of each review. The review mechanism will be revised regularly subject to the Authority's approval.
- 5.3 (A) Within one (1) Business Day of the date on which OpenNet receives the Request for NBAP DP to NBAP TP Connection (Request Date) and subject to clause 5.2, OpenNet will notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) whether its Request is rejected for any one of the following reasons:
  - (a) the Request for NBAP DP to NBAP TP Connection is not in the prescribed form;
  - (b) the Request does not contain all the required information or the information provided is inaccurate or misleading; or
  - (c) the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule.
  - (B)(i) As an alternative to clause 5.3(A), where OpenNet receives a Request for NBAP DP to NBAP TP Connection (Request Date) via the OpenNet Platform, OpenNet will validate and notify the Requesting Licensee, so that the Requesting Licensee is able to make the necessary corrections in real time, if the Request does not meet any one of the following reasons:
  - (a) the Request for NBAP DP to NBAP TP Connection is not in the prescribed form;

- (b) the Request does not contain all the required information or the information provided is inaccurate or misleading; or
- (B)(ii) Following clause 5.3(B)(i), within one (1) Business Day of the date on which OpenNet receives the Request via the OpenNet Platform for NBAP DP to NBAP TP Connection (**Request Date**) and subject to clause 5.2, 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 as the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule.

Where the OpenNet Platform is experiencing technical problems, OpenNet shall inform the Requesting Licensee to submit the Requests through fax/email or offer alternative solutions.

- 5.4 Within twenty (20) Business Days of the date on which OpenNet receives the request for NBAP DP to NBAP TP Connection (**Request Date**) and subject to clause 5.2, OpenNet will complete its Project Study (not applicable for clause 5.4(a)) and notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) whether its Request is accepted, or if rejected, for any one of the following reasons:
  - (a) the NBAP DP or NBAP TP location is deemed to be inaccessible;
  - (b) the equipment or services that the Requesting Licensee proposes to use or to provide interfere with, or cause deterioration to services supplied by OpenNet;
  - (c) there is obstruction from building owner, building management, home owner, End-User, property owner or relevant authorities to OpenNet installation or installation schedule. OpenNet shall use its best endeavours to resolve such obstructions;
  - (d) there are security and confidentiality requirements or restrictions imposed on OpenNet by Government Agencies.
- 5.5 Without prejudice to clause 5.4, the Requesting Licensee shall pay OpenNet the applicable Installation Charge specified in Schedule 15 (Charges) for provisioning the NBAP DP to NBAP TP Connection.

- 5.6 In addition to the Installation Charge, the Requesting Licensee will be liable to pay a one-time charge for installation of the OpenNet Network from the NBAP DP to the NBAP DP which will include ducting and/or trenching to reach the NBAP TP.
- 5.7 Where OpenNet considers it reasonably necessary to conduct site visit(s) to assess the NBAP DP to NBAP TP Connection Request from the Requesting Licensee, OpenNet shall provide reasons for the site visit(s), and the Requesting Licensee shall be liable to pay all applicable Onsite Charges for such site visit(s).
- 5.8 Where OpenNet rejects the Request for the NBAP DP to NBAP TP Connection, OpenNet shall provide reasons explaining the basis for rejection promptly.
- 5.9 Where OpenNet informs the Requesting Licensee that the Request is accepted, OpenNet will inform the Requesting Licensee of the one-time charge payable for the installation of the OpenNet Network from the NBAP DP to the NBAP TP (which will include ducting / trenching to reach the NBAP TP) and the service activation period for the NBAP DP to NBAP TP Connection. The service activation period will be reasonably determined upon completion of the Project Study. OpenNet shall provide a reasonable breakdown for the charge components for this one-time charge.
- 5.10 The Requesting Licensee must provide its acceptance of the service activation period and agreement to pay the one-time installation charge to OpenNet within ten (10) Business Days, failing which, the Request shall be deemed cancelled and the Requesting Licensee shall be liable for Cancellation Charges in accordance with Schedule 15 (Charges).

For Request submitted via the Service Portal, the Requesting Licensee shall submit the signed copy of the quotation; accept the service activation period and agreement to pay the one-time installation charge to OpenNet. Upon successful acceptance, the OpenNet Platform will provide a Request acknowledgement.

Alternatively, for Request submitted via the OpenNet Platform APIs, the Requesting Licensee shall submit the signed copy of the quotation to OpenNet Platform. Subsequently, The Requesting Licensee shall indicate the acceptance of the quotation, the service activation period and payment of the one-time installation charge to OpenNet. Upon successful acceptance, the OpenNet Platform APIs will provide a Request acknowledgement.

5.11 Where the Requesting Licensee provides its acceptance of the service activation period and agreement to pay the one-time installation charge, the service activation period shall be deemed to commence on the next Business Day from the date the acceptance is received by OpenNet.

## 6. **DELIVERY**

- OpenNet shall provide the NBAP DP to NBAP TP Connection by the end of the service activation period. Where there is a delay during service provisioning, the reasons for the delay and the estimated/revised timeframe required to complete service provisioning will be made available on the OpenNet Platform, when available. For the avoidance of doubt, OpenNet shall inform the industry when the above feature will be available on OpenNet Platform.
- OpenNet's FDF at the NBAP DP, including Patching Service at OpenNet's FDF at the NBAP DP in accordance with Schedule 13 (Patching Service). The Requesting Licensee shall bear the Charges for such work carried out by OpenNet.
- OpenNet will provide the necessary Patching Service at OpenNet's FDF at the NBAP DP using Patch Cable of not exceeding ten (10) metres in length. The Requesting Licensee shall provide its own Patch Cable if it requires a longer Patch Cable. For the avoidance of doubt, where the Requesting Licensee provides its own Patch Cable, OpenNet will not offer and the Requesting Licensee shall not request for any rebate or discount over the Patching Service or the NBAP DP to NBAP TP Connection.
- OpenNet will use optical fibre cable based on the ITU-T G.652D standard for outdoor installations and the ITU-T G.657A standard for in-building installations (where applicable) to deliver the NBAP DP to NBAP TP Connection.
- OpenNet will test the optical fibre cable from OpenNet's FDF at the NBAP DP to the NBAP TP to ensure that the NBAP DP to NBAP TP Connection falls within the specified optical performance. Testing will be conducted at wavelengths of 1310nm, 1490nm and 1550nm.
- OpenNet shall ensure that the optical power loss does not exceed -0.4dB per km and -0.5dB per connector.
- 6.7 If the Requesting Licensee wishes to obtain the optical power readings, the Requesting Licensee shall submit its request furnishing the Order Request Identifier on a Business Day. OpenNet shall provide the requested information within three (3) Business Days of receipt of such request. The Requesting Licensee shall pay a charge to provide the optical power readings in accordance with Schedule 15 (Charges).
- 6.8 OpenNet shall promptly notify the Requesting Licensee on the completion of provisioning the NBAP DP to NBAP TP Connection.

6.9 Subject to clause 6.10, in the event OpenNet fails to meet the applicable service activation period for a Request, OpenNet shall compensate the Requesting Licensee an amount equal to the number of days of delay multiplied by the weekly recurring charge for the NBAP DP to NBAP TP Connection, subject to a maximum of 30 times the weekly recurring charge for the NBAP DP to NBAP TP Connection (**Weekly Recurring Charge**), where:

Weekly Recurring Charge = Monthly recurring charge x 7 / 30

- 6.10 OpenNet shall not be required to compensate the Requesting Licensee under any of the following circumstances:
  - (a) Delay in the granting of permission from or permission is not granted to install the required Network to the NBAP DP or NBAP TP, despite OpenNet using its best endeavours to obtain expeditiously such permission, provided that in the event the Requesting Licensee raises a dispute as to whether OpenNet has used its best endeavours to obtain expeditiously the permission, OpenNet will provide evidence that it has used such best endeavours; or
  - (b) The Requesting Licensee requests the deferment of the service activation date.

For the avoidance of doubt, where the service activation date has been revised pursuant to any of the circumstances contemplated in this clause 6.10 or elsewhere in the ICO Agreement (unless otherwise stated), OpenNet shall nevertheless be required to compensate the Requesting Licensee if it fails to meet the revised implementation timeline.

# 7. RESPONSIBILITY AT OPENNET FDF

- 7.1 The Requesting Licensee shall not, and shall ensure that its employees, agents and contractors do not, at any time access OpenNet's FDF at the NBAP DP.
- 7.2 Where the Requesting Licensee wishes to change the existing patching connection at OpenNet's FDF at the NBAP DP, the Requesting Licensee shall submit an application for termination of the existing Patching service and order for a new Patching Service at the NBAP DP in accordance with Schedule 13 (Patching Service).

## 8. DEACTIVATION

- 8.1 Subject to the minimum contract term, the Requesting Licensee may deactivate the NBAP DP to NBAP TP Connection by giving OpenNet not less than one (1) month prior written notice.
- 8.2 If the NBAP DP to NBAP TP Connection is terminated by the Requesting Licensee pursuant to clause 8.1 before the expiry date of the minimum contract term, the Requesting Licensee must pay OpenNet one hundred percent (100%) of the Monthly Recurring Charge for the remainder of the minimum contract term.
- 8.3 Where any Patching Service is no longer required as a result of the termination of the NBAP DP to NBAP TP Connection, OpenNet shall remove the Patching Service at all the relevant access points and the Requesting Licensee shall be liable for the termination charges in accordance with Schedule 15 (Charges). Notwithstanding the above, the Requesting Licensee shall not be liable to pay any Charges for the removal of Patching Service related to or in connection with the termination of the NBAP DP to NBAP TP Connection, if such termination is the result of OpenNet's fault.

## 9. STANDARD TERMS AND CONDITIONS

- 9.1 OpenNet shall at its sole discretion determine its network deployment, including but not limited to the access points and fibre cable routing from which the NBAP DP to NBAP TP Connection is provided. Prior to installation of the Termination Point, OpenNet will assess the suitability of the location to accommodate the deployment of active equipment, such that there will be adequate ventilation and power within the reach of the active equipment. Notwithstanding, OpenNet's assessment and recommendation on location of the Termination Point, OpenNet shall defer to the agreement or instructions of the End-User.
- 9.2 OpenNet will be responsible for the maintenance of the NBAP DP to NBAP TP Connection installed under this Schedule.
- 9.3 Except to the extent strictly necessary to accurately describe the service to actual or potential Customers, the Requesting Licensee shall not use OpenNet's name, any of OpenNet's trademarks or the fact that any service is supplied using OpenNet's Network in promoting the Requesting Licensee's service.
- 9.4 The Parties shall in good faith co-operate with each other and take reasonable measures to ensure that there is no interference with or deterioration to OpenNet's

- existing services or those of a Third Party as a result of the Requesting Licensee's use of the NBAP DP to NBAP TP Connection.
- 9.5 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 NBAP DP to NBAP TP Connection, OpenNet shall provide the Requesting Licensee with at least one (1) month's 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.
- 9.6 OpenNet shall include the following details in the written notification or OpenNet Platform API to the Requesting Licensee:
  - (a) Affected Location;
  - (b) Date of occurrence;
  - (c) Time of occurrence (start & end timings);
  - (d) Cause of Planned Disruption;
  - (e) Order Request Identifier of the affected orders; and
  - (f) OpenNet's Network Operations Centre Contact Number.
- 9.7 If the scheduled service interruption affects NBAP DP to NBAP TP Connections, OpenNet will carry out the scheduled service interruption between 1am and 6am unless it is not feasible for OpenNet to do so.
- 9.8 Subject to Requesting Licensee acquiring redundancy service, OpenNet shall, where technically feasible, provide assistance to Requesting Licensee to divert its NBAP DP to NBAP TP Connection to the redundancy service before commencing the scheduled service interruption.
- 9.9 Where there are available resources, OpenNet will, where possible, first divert critical links to alternative routings before commencing the scheduled service interruption.
- 9.10 Subject to clause 9.6, OpenNet shall not be liable for any loss caused by such scheduled service interruption, except for any Service Level Guarantee rebate that arises from OpenNet carrying out the scheduled service interruption outside of the

- stipulated period and the Requesting Licensee has reported the fault in accordance to clause 11.
- 9.11 The Requesting Licensee shall be responsible to the Requesting Licensee's Customers for all aspects of the Requesting Licensee's services including but not limited to the operations and maintenance of the Requesting Licensee's service.
- 9.12 The Requesting Licensee must procure and maintain at its own cost:
  - (a) any equipment or software needed to implement, receive or use the NBAP DP to NBAP TP Connection (including but not limited to any configuration of the NTE at the NBAP TP);
  - (b) any space near the NBAP DP for its equipment; and
  - (c) access to the NBAP DP and NBAP TP location.
- 9.13 Nothing in this Schedule vests in the Requesting Licensee any right, title or proprietary interest in the optical fibre cable, equipment or facilities forming part of the NBAP DP to NBAP TP Connection.
- 9.14 Onsite charges are applicable whenever Requesting Licensee requests for OpenNet to be onsite other than for provisioning of NBAP DP to NBAP TP Connection or for reasons caused by OpenNet's fault or error.

# 10. ACCESS AND APPROVALS REQUIRED

10.1 The Parties shall comply with clause 15.5 of the main body of this ICO Agreement in relation to the obtaining of all licences, permits, consents, waivers, authorisations and intellectual property or other rights required for the provision of the NBAP DP to NBAP TP Connection.

#### 11. FAULT REPORTING AND CLEARING

- 11.1 Each Party must have or establish a Fault Reporting and Control Centre (**FCC**) to act as a single point of contact for the reporting, management and clearing of faults. The FCC must be available twenty-four (24) hours a day, seven (7) days a week.
- 11.2 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 network before reporting the fault to OpenNet. The Requesting Licensee shall pay OpenNet

according to Schedule 15 (Charges) for cancellation of any fault reported regardless of the response or stage of investigation by OpenNet.

Where the fault is reported via the OpenNet Platform, the Requesting Licensee shall indicate the following:

- (a) Order Request Identifier
- (b) Requesting Licensee incident ID
- (c) Incident type
- (d) Description of fault ticket
- (e) End-User contact details

Upon successful submission of the fault, the OpenNet Platform will provide a fault acknowledgement.

- 11.3 Upon receipt of a fault report from the Requesting Licensee under clause 11.2, OpenNet shall investigate the cause of the fault experienced by the Requesting Licensee in a diligent and responsible manner as would be expected of a competent service provider. OpenNet shall provide periodic updates to the Requesting Licensee on the status of the fault rectification and also updates when there is a change in status of the fault investigation/rectification work through OpenNet Platform, when available, or via manual means. For the avoidance of doubt, OpenNet shall inform the industry when the above feature will be available on OpenNet Platform. Where a fault is reported via manual means, Requesting Licensee shall submit information as required under clause 11.2. OpenNet may also provide the updates and status via Email.
- 11.4 If, following investigation, OpenNet determines that the fault is at the Patch Cable at the NBAP DP, OpenNet will replace with another Patch Cable and charge the Requesting Licensee a Patching Charge in accordance with Schedule 15 (Charges) if the Requesting Licensee was responsible for the fault at the Patch Cable at the NBAP DP.
- 11.5 If, following investigation, OpenNet determines that no fault is found or the fault is not with the OpenNet Network or equipment, then OpenNet shall charge the Requesting Licensee a No Fault Found Charge for the fault report in accordance with Schedule 15 (Charges).

- 11.6 The process for fault investigation shall be as follows:
  - (a) For each of the three (3) wavelengths of 1310nm, 1490nm and 1550nm, the optical power shall be measured in accordance with clause 6.6 above where possible, and the findings shall be clearly recorded using the "Fault Rectification Service Report" (Annex 11B).
  - (b) if the power loss do not exceed the limit specified in clause 6.6 then the following steps shall be carried out before a finding of 'no fault found' will be recorded:
    - determine that no macro bending that produces high loss
    - determine that no dirty/damaged connector
    - determine that no fibre cut or damaged Termination Point
    - determine that there is no wrong patching
    - measurements of the following shall also be taken :
      - > optical time-domain reflectometer
      - **≻**power loss
  - (c) Upon completion of any fault investigation where both OpenNet and Requesting Licensee are present, OpenNet will hand over the Termination Point to the Requesting Licensee and both Parties shall jointly sign off on the "Fault Rectification Service Report" (Annex 11B), which will state the outcome of the investigation. For fault investigation where Requesting Licensee is not required to be present, OpenNet shall conclude the investigation on-site and inform the Requesting Licensee of the outcome accordingly. OpenNet shall provide periodic updates to the Requesting Licensee on the status of the investigation and also updates when there is a change in status of the investigation through OpenNet Platform, when available. For the avoidance of doubt, OpenNet shall inform the industry when the above features will be available on OpenNet Platform.
- 11.7 If OpenNet is unable to identify any fault, OpenNet will call for a fault identification coordination meeting between OpenNet and the Requesting Licensee to identify the fault. OpenNet will notify the Requesting Licensee on the request for fault identification. The Requesting Licensee shall provide all reasonable assistance requested by OpenNet. Each Party is to bear its own cost for attending such fault identification coordination meeting as well as any testing or trouble-shooting

activities required as a result of such a meeting. For the avoidance of doubt, save as provided below, each party shall bear its own costs for the purpose of any fault investigation:

- (a) In the event that a particular fault is due to OpenNet or its contractors, OpenNet shall not impose any charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an OpenNet-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall not impose the joint investigation charge on the Requesting Licensee even if the fault identification process is initiated by the Requesting Licensee.
- (b) In the event that a particular fault is due to the Requesting Licensee or its contractors or its End-Users, OpenNet shall be entitled to impose a charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an OpenNet-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall also be entitled to impose the joint investigation charge on the Requesting Licensee if the fault identification process is initiated by the Requesting Licensee.
- (c) In the event that it is agreed that a particular fault is not due to OpenNet (or its contractors) or the Requesting Licensee (or its contractors or End-Users), OpenNet shall be entitled to impose a charge on the Requesting Licensee for access to the Co-Location Space (where applicable) only if it is an Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall also be entitled to impose the joint investigation charge on the Requesting Licensee if the process was initiated by the Requesting Licensee.
- 11.8 The NBAP DP to NBAP TP Connection is deemed to be restored when OpenNet has tested and confirmed to the Requesting Licensee that the NBAP DP to NBAP TP Connection has been restored. OpenNet will notify the Requesting Licensee with the cause of fault.
- 11.9 Where the Requesting Licensee has lodged with OpenNet a fault report and OpenNet is in the process of investigating the fault or where the Requesting Licensee has not lodged a fault report but suspects that there is a fault with the NBAP DP to NBAP TP Connection, the Requesting Licensee may request OpenNet for a joint investigation. The Requesting Licensee shall propose the date, time and venue for the joint investigation. Subject to OpenNet's resource availability and agreement to the date, time and venue, OpenNet shall attend the joint investigation and charge the

Requesting Licensee the Joint Investigation Charge according to Schedule 15 (Charges), if the fault is not due to OpenNet. If the fault is due to OpenNet, OpenNet will waive the Joint Investigation Charge. The process for a joint investigation shall be as described in clause 11.6. Clauses 11.7(a) to (c) will also apply to joint investigations under clause 11.9. Additionally, where the Requesting Licensee disputes OpenNet's findings, the Requesting Licensee may request OpenNet for a fault identification coordination meeting.

- 11.10 The Requesting Licensee acknowledges that OpenNet may temporarily disconnect the Requesting Licensee's NBAP DP to NBAP TP Connection to perform reasonable fault analysis and line testing on the NBAP DP to NBAP TP Connection. OpenNet shall conduct such disconnection only as it reasonably considers necessary. OpenNet shall notify the Requesting Licensee at least thirty (30) minutes before the temporary disconnection and provide its reasons for the temporary disconnection.
- 11.11 Each Party shall maintain and store its own records of faults and repairs.

# **Mean Time To Recovery**

- 11.12 OpenNet shall restore any fault within a standard Mean Time To Recovery (MTTR) of eight (8) hours.
- 11.13 Subject to clause 2.6, the MTTR shall be the average time OpenNet took to restore service for all fault incidents for all NBAP DP to NBAP TP Connections acquired by the Requesting Licensee under this Schedule during a month, measured from the time each fault is reported by the Requesting Licensee to the time OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control. For the avoidance of doubt, the MTTR is calculated as follows:

Where X = Time taken to restore fault incidents for each NBAP DP to NBAP TP Connection during a month as described above

 $Y = Total \ number \ of \ affected \ NBAP \ DP \ to \ NBAP \ TP \ Connections \ in \ the \\ same \ month$ 

11.14 In the event OpenNet fails to meet the standard MTTR for a particular month, OpenNet shall compensate the Requesting Licensee an MTTR Rebate equal to the difference between the MTTR experienced by the Requesting Licensee and the standard MTTR in terms of number of days, multiplied by the number of services affected, multiplied by the Weekly Recurring Charge for the NBAP DP to NBAP TP Connection, subject to a maximum of 30 times the Weekly Recurring Charge for the NBAP DP to NBAP TP Connection.

# 12. SERVICE LEVEL AVAILABILITY

- 12.1 OpenNet shall offer a service level availability of 99.99% per month for the NBAP DP to NBAP TP Connection. OpenNet shall offer to rebate the Requesting Licensee ten percent (10%) of the Monthly Recurring Charge if OpenNet fails to meet the service level availability for that month.
- 12.2 Service level availability for the NBAP DP to NBAP TP Connection is calculated as follows:

Where A = 24 hours x number of days for the month (in hours); and

B = total network outage time for the NBAP DP to NBAP TP Connection in the same month (in hours)

12.3 Subject to clause 2.6, the total network outage time is the sum of all minutes for which the NBAP DP to NBAP TP Connection is unavailable measured from the time each fault is reported by the Requesting Licensee to the time OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control.

# 13. PROTECTION AND SAFETY

13.1 Each Party is responsible for the safe operation of its Network and in particular the safe operation of any equipment within its Network on its side of the connection at the NBAP DP and NBAP TP.

- 13.2 Each Party shall, so far as reasonably practicable, take all necessary steps to ensure that the licence of the NBAP DP to NBAP TP Connection, its operations and its implementation of this Schedule:
  - (a) do not endanger the safety or health of any person, including the employees and contractors of the Parties; and
  - (b) do not damage, interfere with or cause any deterioration in the operation of the OpenNet Network.

## 14. TERM OF LICENCE

14.1 The minimum contract term for the NBAP DP to NBAP TP Connection shall be twelve (12) months starting from the service activation date of the NBAP DP to NBAP TP Connection.

## 15. SUSPENSION

- 15.1 OpenNet may suspend the Requesting Licensee's licence to the NBAP DP to NBAP TP Connection at any time until further notice to the Requesting Licensee if the NBAP DP to NBAP TP Connection licence causes or is likely to cause physical or technical harm to any telecommunications network, system or services (whether of OpenNet or any other person) including but not limited to causing damage, interfering with or causing deterioration in the operation of the OpenNet Network. If the suspension is the result of the Requesting Licensee's fault, the Requesting Licensee shall continue to pay the Monthly Recurring Charge during the period of suspension.
- 15.2 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 the NBAP DP to NBAP TP Connection licence under this clause 15.

#### 16. TERMINATION OF LICENCE

- 16.1 The Requesting Licensee shall keep OpenNet informed on the Requesting Licensee's utilisation of each NBAP DP to NBAP TP Connection six (6) months from the service activation date and when there are changes to the utilisation.
- 16.2 The Requesting Licensee must use or activate a service to a Retail Service Provider using the NBAP DP to NBAP TP Connection within six (6) months from the service

activation date of the NBAP DP to NBAP TP Connection. If the Requesting Licensee fails to do so, OpenNet will deactivate the NBAP DP to NBAP TP Connection upon giving the Requesting Licensee ten (10) Business Days prior notice, and the Requesting Licensee did not dispute such written notice given by OpenNet. The Requesting Licensee must pay OpenNet the Monthly Recurring Charges for the remainder of the minimum contract term.

- 16.3 OpenNet may immediately terminate a licence of the NBAP DP to NBAP TP Connection under this Schedule if:
  - (a) the Requesting Licensee is no longer an FBO;
  - (b) the OpenNet ICO is revoked by the Authority under clause 12.8 of the ICO Agreement;
  - (c) the Authority removes the requirement for OpenNet to supply the NBAP DP to NBAP TP Connection under the OpenNet ICO or exempts OpenNet from supplying the NBAP DP to NBAP TP Connection under the ICO Agreement, provided that the date of termination shall not be earlier than the effective date of the Authority's decision;
  - (d) in OpenNet's reasonable opinion, the Requesting Licensee is using the NBAP DP to NBAP TP Connection in contravention of an applicable law, licence, code, regulation or direction and OpenNet has the necessary confirmation from the relevant Government Agencies that the Requesting Licensee is in contravention of the applicable law, licence, code, regulation or direction;
  - (e) in OpenNet's reasonable opinion, the Requesting Licensee is using the NBAP DP to NBAP TP Connection in a manner which places or allows a Third Party to act in contravention of an applicable law, licence, code, regulation or direction and OpenNet has the necessary confirmation from the relevant Government Agencies that the Third Party is in contravention of the applicable law, licence, code, regulation or direction;
  - (f) the licence in respect of Co-Location Space to which the NBAP DP to NBAP TP Connection is connected has been terminated or has expired;
  - (g) the NBAP DP to NBAP TP Connection has become unsafe for its purpose; or
  - (h) OpenNet's right to own, maintain or operate the NBAP DP to NBAP TP Connection has been revoked or terminated or has expired.

- 16.4 Either Party (**Terminating Party**) may terminate the NBAP DP to NBAP TP Connection:
  - (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;
  - (b) if the Requesting Licensee's NBAP DP to NBAP TP Connection licence has been suspended pursuant to clause 15.1, and the cause of such suspension has not been remedied or rectified for a period of sixty (60) Calendar Days from the date of the suspension; or
  - (c) 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).
- 16.5 Upon termination of the licence of the NBAP DP to NBAP TP Connection:
  - (a) the Requesting Licensee must immediately discontinue use of the NBAP DP to NBAP TP Connection;
  - (b) the Requesting Licensee must without undue delay disconnect all equipment connected to the NBAP DP to NBAP TP Connection; and
  - (c) OpenNet shall be responsible for removing all necessary Patching Services at the Requesting Licensee's cost in accordance with Schedule 15 (Charges). Notwithstanding the above, the Requesting Licensee will not be liable for OpenNet's costs of removing all necessary Patching Services if the termination is the result of OpenNet's fault.
- 16.6 If the licence of the NBAP DP to NBAP TP Connection is terminated as a result of the Requesting Licensee's fault, the Requesting Licensee shall be liable to OpenNet for the Monthly Recurring Charges for the remainder of the minimum contract term.
- 16.7 If the Requesting Licensee fails to disconnect its equipment from the NBAP DP to NBAP TP Connection under clause 16.5(b), OpenNet may at its sole discretion remove and/or dispose of the Requesting Licensee's equipment. The Requesting

Licensee shall pay to OpenNet all reasonable costs associated with the work undertaken by OpenNet including the cost of disposing the Requesting Licensee's equipment. The Requesting Licensee shall have no claim whatsoever against OpenNet in connection with the removal and/or disposal of the Requesting Licensee's equipment from the NBAP DP to NBAP TP Connection.

## 17. REDUNDANCY SERVICE

- 17.1 The Requesting Licensee may acquire one separate fibre strand from OpenNet's FDF at the NBAP DP to the NBAP TP (**Redundancy Service with Wireline Diversity**) at the same prices, terms and conditions as the NBAP DP to NBAP TP Connection through a request in the form of Annex 11A either via manual means or OpenNet Platform, unless stipulated otherwise in this clause 17.
- 17.2 OpenNet shall provide the Redundancy Service via the same duct and along the same path as the existing NBAP DP to NBAP TP Connection, without Duct Diversity and without Path Diversity. OpenNet may provide the Redundancy Service using a separate fibre strand from the same fibre cable that carries the existing NBAP DP to NBAP TP Connection.
- 17.3 The Requesting Licensee is eligible to acquire a Redundancy Service for the NBAP DP to NBAP TP Connection provided the Requesting Licensee has acquired or is acquiring an equivalent NBAP DP to NBAP TP Connection between the same NBAP DP and NBAP TP. The Requesting Licensee may request OpenNet to reject the Request for the NBAP DP to NBAP TP Connection in the event that OpenNet is unable to provide the Redundancy Service, but such Requests for the NBAP DP to NBAP TP Connection and the Redundancy Service must be submitted together to OpenNet.
- 17.4 The Requesting Licensee shall be responsible, at its own cost and equipment, for the implementation of diversity or redundancy for its services using the Redundancy Service provided by OpenNet.
- 17.5 OpenNet shall make the Redundancy Service available to the Requesting Licensee, except where OpenNet is unable to build the requisite infrastructure (other than fibre) to provide the Redundancy Service or due to any of the reasons stated in clause 5.4.

## ANNEX 11A: REQUEST FORM FOR NBAP DP TO NBAP TP CONNECTION

Request for NBAP DP to NBAP TP Connection Date of Application: Number: Application Reference End-User Name: NBAP DP address or description of address (Please attach map): NBAP TP address or description of address; GPS co-ordinates and height (Please attach map): Requesting Licensee Any other info: Redundancy Service is required Request for NBAP DP to NBAP TP Connection to be rejected if Redundancy Service is not available For and on Behalf of Requesting Licensee Sign: Company Stamp: Requesting Licensee Name: Company Name: Designation: Contact Number, Fax and email address Part 1: Date: Application accepted and will proceed with detailed study: Circuit Identification Number: Application rejected OpenNet Reason for rejection: OpenNet Name / Signature: Queue Status: Part 2: Date: Circuit Provision: Provision Date: Digging and Trenching Work Charges: (Breakdown of charges to be attached) Application rejected **DenNet** Reason for rejection: OpenNet Name / Signature: Requesting Licensee Acceptance: We agree that we are liable for the digging and trenching work charges and agree with the service provisioning date stated (both) above. Sign: Company Stamp: Requesting Licensee Name: Company Name: Designation: Contact Number, Fax and email address

# ANNEX 11B: FAULT RECTIFICATION SERVICE REPORT

Service Fault Rec						,	Serial No:		
Appointment Date:			Δ rrix	val Tim	ne:				
Time: Co				ompletion Time:  1 hour activation					
Trouble Treket Ivo.							ectification		
		]		Follow up end-user appointment					
END-USER INFORMAT	ΓΙΟΝ								
Authorised Person Name:	*Mr/Mrs	/Miss/Mdm/I	Or						
Contact no:					(HP):				
Company:									
Registered Address:	Blk/Hous			Unit N	o:	#		-	
	Street Na							<b>a</b> .	
	Building	Name:				Posta	al code:	S(	)
LOCATION OF INSTA	LLATION								
A-END (CO/MDF)			I	B-END	(CO/N	MDF, I	End-User's	Premise)	
Blk/House:	Unit No:	#	-						
Street Name:			1	RIk/Ho	use:		_ Unit No: #	¥ <b>-</b>	
Building Name:	P	ostal code	:   \$	Street I	Name:		_ 0111011011	·	
S()			I	Street Name: Postal code: S()					)
End-User Declaration (che	eck only one	e box)							
I am the owner of the above premises  I, Name:									
For Official Use Only									
OPTICAL MEASUREME	ENTS. WHE	ERE POSSIBI	LEO	Measur	ed by F	RL)			
Fault description:	· · · · · · · · · · · · · · · · · · ·					/			
Test Measurement (CO to Serving Cabinet):	1310nm	1490	Onm	m		1550nm		Distance (m)	
Test Measurement (CO to 1 <sup>st</sup> TP):	1310nm	1490	Onm	nm		550nm	1	Distance (m)	
Test Measurement (Segment Services A- END to B-END)	1310nm	1490	Onm		1	550nm	1	Distance (m)	
Certified by ON:									
Technician Name:				Date:					
Technician Signature:				Time:					

# ANNEX 11B: FAULT RECTIFICATION SERVICE REPORT

OPTICAL MEASUREMENTS, WHERE POSSIBLE (Measured by ON)									
Fault description:									
Test Measurement									
(CO to Serving	1310nm	1490	nm	1550nm	Distance				
Cabinet):					(m)				
Test Measurement	1310nm 1490			1550nm	Distance				
(CO to 1 <sup>st</sup> TP):			nm		(m)				
<b>Test Measurement</b>					Distance				
(Segment Services A-	1310nm	nm 1490		1550nm					
END to B-END)					(m)				
Certified by :									
RL Name:		Date:							
RL Signature:			Time:						
Fault Root Cause Descrip	otion								
ACTION TAKEN/ADDITIONAL REMARKS									
CUSTOMER ACKNOWLE		ACCEDT.	ANCE						
Remarks/Comments:	EDGEMENT AND F	ACCEPTA	ANCE						
remarks, comments.									
This is to acknowledge that the fibre fault rectification has been attended and the fault resolution is effective									
Fault Attended by:			Resolution Accepted by End-User:						
Technician Name:			— End-User Signature:						
Technician Signature:									
Resolution Verified and Accepted by RL (Only applicable for <u>1 hour activation</u> ):									
RL Name:			RL Signature:						

End-Users can refer to their retail service providers for more information to address and resolve any end user service related issues.

\*Please delete where inapplicable.