

## Service Schedule A-10: Wavelength

This Wavelength Service Schedule (“Service Schedule”) is subject to, and made a part of, the Master Services Agreement (“MSA”) entered into by and between DQE and Customer. Capitalized terms not defined herein will have the meaning ascribed to them in the MSA.

**A. Definitions.** The following definitions shall apply to unprotected and protected Wavelength services:

1. **Availability** – the amount of time (often presented as a percentage) that a service is available to the Customer (i.e. unaffected by a Service Outage).
2. **Off-Net Service** – any service which does not meet the definition of On-Net.
3. **On-Net Service** – a service in which all Customer locations of the service are provisioned entirely on DQE-owned facilities and does not include any Third Party Services (as defined herein).
4. **Protected Wave Service** – a Wavelength Service that includes a path protection scheme that allows for the rerouting of traffic upon a fiber cut or equipment failure. Services that are protected will be specifically stated as such on the applicable Service Order.
5. **Round Trip Delay (RTD)** – RTD is defined as the Layer 1 round-trip delay across the DQE Network between Customer Sites of a Wavelength Services circuit. The RTD standard is circuit specific and represents a theoretical estimate based on pre-sale design.
6. **Termination Node** – shall mean the locations within DQE’s facilities or within Customer Premises in each of the cities in which termination is available. Each DQE Wavelength Service shall contain two (2) Termination Nodes, the exact location of which will be set forth in the Customer Order.
7. **Type II Service** – service in which a third party service provider is utilized to provide the connectivity to the customer premise/site, due to being outside DQE’s service footprint.
8. **Unprotected Wave Service** – a Wavelength Service that does not include a protection scheme that allows for the rerouting of traffic upon a fiber cut or equipment failure. Services that are unprotected will be specifically stated as such on the applicable Service Order.

**B. Wavelength Service Description.** DQE Wavelength Service is a dedicated, transparent, optical wave signal for transport of high bandwidth between two Termination Nodes offered on a Protected or Unprotected basis. Customer interface consists of 2.5Gb, 10Gb, 40Gb, 1GbE, 10GbE, 40GbE and 100GbE, OTU1, OTU2, OTU2e, OTU3, OTU4 and 1Gb, 2Gb, 4Gb, 8Gb, and 10Gb Fibre Channel. Wavelength Service network configurations can be specified on Service Orders in the following configurations:

1. Protected Wavelength – DQE will provide a Wavelength Services circuit that is protected end to end. Dual diverse paths will be utilized, with automatic path failover.
2. Unprotected Wavelength – DQE will provide a Wavelength Services circuit that is unprotected end to end.**C. Demarc and Equipment Requirements.**
  1. Traffic – To use the DQE Wavelength Service, Customer must provide to DQE, at each Termination Node, a SONET or SDH-framed 2.5Gb, 10Gb or 40Gb signal, as defined by Telcordia GR-253-CORE, a 1Gb, 10Gb, 40Gb or 100Gb Ethernet signal, as defined by IEEE 802.3ae, a OTU1, OTU2, OTU2e, OTU3, OTU4 signal, as defined by ITU G.709, or a 1Gb,

2Gb, 4Gb, 8Gb, or 10Gb Fibre Channel signal, as defined by T11 Technical Committee within INCITS (the International Committee for Information Technology Standards (collectively, "Traffic"), which Traffic will thereafter be delivered by DQE, in like format, to the opposite and corresponding Termination Node.

2. Demarc - The demarcation point for the DQE Wavelength Service shall be the DQE OSX or fiber termination panel at the Termination Node. Customer shall be solely responsible for providing all interconnection equipment used both to deliver Traffic to, or to accept Traffic from, DQE in the formats described above and for any and all protection schemes Customer chooses to implement respecting the Traffic. For a Termination Node at a location other than a DQE Gateway, Customer shall provide DQE with space and power (at no charge to DQE), as reasonably requested by DQE, for placement and operation of an OSX, fiber termination panel or other equipment within the Customer Premises.

**D. Service Level Requirements.** DQE’s service level agreements (“SLA”) focus on two key areas – Availability, and Round Trip Delay (RTD).

1. Availability. The Availability service level commitment for DQE’s Protected Wavelength Service is 99.99%. The Availability service level commitment for DQE’s Unprotected Wavelength service is 99.5%. Service is “Unavailable” (except in the case of an Excused Outage) if the Customer port at a Customer site is unable to pass traffic, or pass traffic efficiently. Service Unavailability is calculated from the timestamp when Customer calls in a ticket to the DQE NOC or opens a ticket via the DQE Customer Control Center until the time the service is confirmed restored. If credits are due under this SLA, no other SLAs apply to the same event.

<b>DQE Availability SLA Credit Formula</b>		
<b>Cumulative Unavailability (hrs:mins:secs)</b>	<b>SLA Credit</b>	
	<b>Unprotected</b>	<b>Protected</b>
00:00:05 to 00:04:30	0%	5%
00:04:31 to 00:30:00	0%	10%
00:30:01 to 02:00:00	0%	25%
02:00:01 to 05:00:00	25%	50%
05:00:01 to 24:00:00	50%	75%
24:00:01 to 48:00:00	75%	100%
48:00:01 or greater	100%	100%

2. Round Trip Delay. The Route Trip Delay service level commitment for DQE’s Wavelength Service is circuit specific. When requested by Customer, DQE will provide an end-to-end RTD estimate as part of

the Service Order Form. RTD performance may vary at circuit completion. DQE will maintain the circuit within the specified RTD throughout the term of the circuit.

- a. Round Trip Delay Calculation. When requested and scheduled by Customer, DQE will provide the end-to-end RTD estimate as part of the order documentation, which serves as the Service Level Standard for RTD. Upon test and turn up, DQE will provide Customer with calculated or actual measured RTD.
- b. Round Trip Delay Measurement. RTD is a service level standard. Measurement of RTD may require testing the circuit in intrusive mode, in accordance with DQE testing procedures, until such time as in-service measurements are supported.

When Customer determines that the circuit is experiencing degraded service to the extent that it exceeds the expected RTD, Customer must open a trouble ticket with DQE, and release the circuit for testing and repair.

To measure the delay, a signal may be sent from one end of the circuit. At the other end of the circuit, an external loop-back may be performed on the card equipment, and the returned signal measured at the sending end. This includes the DQE add drop mux/light transmission equipment located at the Customer Site. This only covers demarcation point to demarcation point. This does not include Customer's equipment ("CPE"), any third party equipment, or any Customer application on a covered circuit.

This includes the DQE add drop mux/light transmission equipment located at the Customer Site. DQE's measurement of RTD will be used as the value to determine whether the RTD SLA has been met. Outage minutes resulting from testing will not be considered for Hard Outage SLAs. If delay should increase during the term of the circuit, DQE will work with Customer to restore delay values to not exceed the RTD value that was agreed to prior to the completion of circuit.

3. Service Level Limitations. For any Off-Net or Type II service, DQE will pass-through to Customer any service levels and associated credits (or other express remedies) provided to DQE by the applicable third party carrier.
4. Third Party Services. If Customer requests Services that require DQE to procure services from a third party ("Third Party Provider" or "Type II Provider") on behalf of Customer, DQE agrees to provide such Third Party Services subject to the following to which Customer acknowledges and agrees: (a) the Third Party Services will be provided by a Third Party Provider; (b) the Third Party Services will function and perform in accordance with the service level obligations provided by the Third Party Provider to DQE (i.e., the standard DQE SLA does not apply); (c) any rights, remedies, outage credits, or other service-specific terms that the Customer may have or be entitled to under this Agreement are limited to the same terms that DQE has in place with the Third Party Provider; (d) the costs for the Third Party Services will be incorporated into the Service Fee and Installation Fee set forth in the applicable Service Order; (e) if DQE purchases Third Party Services pursuant to Third Party Provider's applicable tariff, Customer is responsible for any additional charges imposed on DQE; and (f) if the Customer cancels or terminates for its convenience, any Service which includes a Third Party Service prior to the conclusion of the Service Term, then the Customer will pay any and all cancellation and/or early termination charges that DQE actually incurs for the cancellation or termination of such Third Party Services, plus any charges remaining under this Agreement. Third Party Providers may require Customer to provide, at Customer's sole cost and expense, conduit access and/or extension of demark to Customer's facility to enable installation of Third Party Services.

5. Service Level Credits. In the event that DQE does not achieve a particular Service Level in a given month, for reasons other than an Excused Outage (as defined below), DQE will issue a credit to Customer as set forth in the applicable Service Level table above, upon Customer's request. To request a credit, Customer must contact DQE's Customer Service by calling toll free in the U.S. and Canada 1-866-GO-FIBER or delivering a written request within thirty (30) days of the end of the month for which a credit is requested.

An "Excused Outage" is an outage caused by:

- (a) any act or omission of the Customer or its end-user customers, or their representatives, contactors, agents, authorized invitees, successors or assigns;
- (b) the configuration, failure or malfunction of non-DQE equipment or systems;
- (c) scheduled maintenance or planned enhancements or upgrades to the DQE network;
- (d) DQE not being given reasonable access to the premises;
- (e) Customer exceeding the maximum capacity of a port connection or any other rate limitation as set forth in the applicable Service Order; or
- (f) a Force Majeure Event as defined in the Master Services Agreement.

6. Escalation Process. In the event that Customer becomes aware of a network failure, Customer will contact DQE's NOC Support Line, and DQE will respond within (1) hour. If Customer receives no response within one (1) hour, Customer shall utilize the escalation process set forth at [www.dqecom.com](http://www.dqecom.com).

#### **E. Installation and Activation Procedure.**

1. Construction of Facilities. With respect to construction of facilities to the Customer Premises and installation, maintenance and repair of facilities within the Customer Premises, Customer shall provide DQE with access to and the use of Customer's entrance facilities and inside wiring, and/or shall procure rights for DQE allowing the placement of facilities necessary for installation of facilities to deliver the DQE Wavelength Service to the Customer Premises. All costs associated with procuring and maintaining rights needed to obtain entry to the building (and the real property on which the building is located) within which the Customer Premises are located, and costs to procure and maintain rights within such building to the Customer Premises, shall be borne by Customer.
2. Activation of Services. Upon successful installation of equipment, thorough testing of the service(s) will be completed. The service(s) will then be handed over to the customer following a Service Activation Notice.

**F. Warranty and Limitations.** DQE warrants that during the Term, the Services will meet the specifications on the Customer Service Order. If the Services fail to meet such specifications, DQE will provide support and maintenance to Customer in accordance with the SLAs set forth herein. Each SLA will be effective on the applicable Service Commencement Date but credits will not apply until the first full calendar month in which a Service is provided. If the Services fail to meet the specifications on the Customer Service Order then Customer shall be entitled to remedies set forth in the applicable SLA.

EXCEPT AS SET FORTH HEREIN, THE CREDIT CALCULATIONS SET FORTH IN THE SLA SHALL BE CUSTOMER'S SOLE REMEDY IN THE EVENT OF ANY FAILURE OF THE SERVICES TO MEET THE SPECIFICATIONS. THE TOTAL AMOUNT OF CREDIT THAT WILL BE EXTENDED TO CUSTOMER AS A

RESULT OF DQE'S FAILURE TO MEET THE SPECIFICATIONS SET FORTH IN THE SLA SHALL BE LIMITED TO 100% OF ONE MONTH'S RECURRING CHARGE IN ANY SINGLE MONTHLY BILLING PERIOD. EXCEPT AS SET FORTH IN THIS SECTION, DQE MAKES NO WARRANTIES TO CUSTOMER WITH RESPECT TO THE SERVICES, EXPRESSED OR IMPLIED. DQE EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. DQE EXPRESSLY DISCLAIMS ANY WARRANTY OF CONTINUOUS OR UNINTERRUPTED SERVICE.

If Customer is delinquent on any invoice, any SLA credits due to Customer shall be deducted from said delinquent amount. The application of credits does not waive Customer's obligation to pay any remaining balances or any future amounts under this Agreement.

**G. Termination.** With respect to Wavelength services only, if Customer has qualified for credits for any single service in excess of a total of sixty (60) days recurring charges in any continuous twelve (12) month period, following thirty (30) days advanced written notice, Customer may terminate the Metro Ethernet & Internet Customer Service Order with no additional obligations. Qualified credits are defined as issues with service availability, latency, jitter and documented via a DQE Network Operations Center Trouble Ticket. The termination right must be exercised within sixty (60) days of the event giving rise to it.