

## Service Schedule A-2: Metro Ethernet & Internet

The following additional terms and conditions (“Service Schedule”) are applicable to Customer Sales Orders for DQE’s Metro Ethernet and/or Internet Services offered under the Online Terms and Conditions. Capitalized terms not defined herein will have the meaning ascribed to them in the Online Terms and Conditions.

**A. Definitions.** The following definitions shall apply to Metro Ethernet & Internet Services:

1. **95th Percentile Calculation** – the calculation method used to measure bandwidth usage for services which specify the Burstable scaling option. Samples of average bandwidth utilization rates of both inbound and outbound traffic from Customer port(s) are collected in five (5) minute intervals over a calendar month. The higher of such samples (Inbound or Outbound) are placed on a list and sorted from highest to lowest in amount of Mbps. The highest five percent (5%) of samples are discarded and the next remaining highest sample is chosen to represent the 95th percentile calculation for that given month.
2. **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).
3. **Burstable Bandwidth** – the service option for scaling an increase of bandwidth greater than the subscribed level (provisioned as EIR) in which the 95th Percentile Calculation is utilized to determine the additional service fees owed for a given month in which the bandwidth utilized is in excess of the subscribed level.
4. **Committed Information Rate (CIR)** – refers to bandwidth provisioned to a service that is reserved across the DQE network without any oversubscription. The Customer’s CIR bandwidth level is dedicated and always available to the service without contention from other network traffic.
5. **Dial-up Bandwidth** – the service option for scaling an increase in bandwidth greater than the subscribed level in which the Customer utilizes the DQE Customer Control Center (CCC) web portal in order to temporarily increase the available bandwidth of the service. This method results in additional service fees that are based on a per Mbps per Day basis of the level in which the Customer increases the bandwidth in excess of the subscribed level.
6. **Excess Information Rate (EIR)** – refers to bandwidth provisioned to a service that is not reserved across the network, but allows a service to burst above the Committed Information Rate.
7. **Jitter** – the measure of the average variation in network delay between Ethernet frames that transit the DQE network and are delivered by DQE via the intended On-Net service in a calendar month.
8. **Latency** – the measure of the average one-way network delay of the Ethernet frames that transit the DQE network and are delivered by DQE via the intended On-Net service in a calendar month.
9. **Off-Net Service** – any service which does not meet the definition of On-Net.
10. **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).
11. **Packet Loss** – the measure of the average number of Ethernet frames undelivered by DQE via the intended On-Net service in a calendar month.

12. **Subscribed Level** – amount of bandwidth for which a customer is contracted for a given service, as stated on the Service Order.
13. **Type II Service** – Metro Ethernet 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.
14. **Unprotected Service** – a Metro Ethernet service or Internet 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. (This Service is also referenced as Ethernet Point to Point, Managed Fiber, and Leased Lit Fiber)

**B. Metro Ethernet Service Description.** DQE Metro Ethernet services provide dedicated connectivity for transport of data, voice, video or other forms of communications traffic. Metro Ethernet service supports bandwidth levels from 10 Mbps to 10 Gbps. Metro Ethernet service terminates at the User to Network Interface (the “UNI”) or Network to Network Interface (the “NNI”) port(s), typically located at a customer’s premise, common telecommunications facility or meet-me-point. In general, the service is based on terminology and attributes defined and used by the Metro Ethernet Forum (MEF). Metro Ethernet service follows the definition of Ethernet Private Line (“EPL”) and Ethernet Virtual Private Line (“EVPL”) network configurations, and can be specified on Service Orders in the following configurations:

1. **E-Line:** An EPL service comprised of a UNI at each Customer site connected via an Ethernet Virtual Circuit (“EVC”) providing point-to-point Ethernet transport services or an EVPL service comprised of an aggregation UNI or NNI at one site connecting multiple UNIs which serves to aggregate multiple Customer locations to a central hub location in a point-to-multipoint configuration.
2. **E-LAN:** a service comprised of a UNI at each of three or more Customer sites providing multipoint-to-multipoint Ethernet transport between three or more Customer locations.

**C. Internet Service Description.** DQE Internet Service provides connectivity and access to the public Internet via DQE’s Tier 1 peering arrangements with various Internet network providers. DQE’s Internet service is provided via its fiber-based ethernet network with a single autonomous system, and can be scaled from 10 Mbps to 10 Gbps. DQE supports the following three (3) tiers of Internet service products:

1. **Basic v2 Internet** – See table below for the detailed, standard technical specifications of Basic v2 Internet.
2. **Dedicated v2 Internet** – See table below for detailed, standard technical specifications of Dedicated v2 Internet.
3. **Highly Available Internet** – Highly Available Internet is a custom designed solution per customer specifications, so no standard configuration exists. The purpose of this tier is to design a solution that will provide the level of availability to meet the customer’s needs, and may include (but is not limited to) options such as diverse entrance, redundant switches, redundant BGP sessions, etc.

Attribute	Basic Internet Service	Dedicated Internet Service	Highly Available Internet Service
Symmetrical Bandwidth	Supported	Supported	Supported
Dedicated Bandwidth (CIR)	0% CIR of PIR	100% CIR of PIR	100% CIR of PIR
SLA - Availability	99.90%	99.99%	100.00%
SLA - Packet Loss	None	<0.001%	<0.001%
SLA - Latency	<10ms	<5ms	<5ms
Customer Web Portal Access	Standard	Standard	Standard
IPv4 IP Addresses - Standard	/29 (3 useable)	/29 (3 useable)	Design Dependent
IPv6 IP Addresses	/48 (2^80 Useable)	/48 (2^80 Useable)	/48 (2^80 Useable)
BGP Peering	Not Supported	Optional	Optional
DQE Upstream Router Redundancy	Dual	Dual	Dual
Redundant Customer Premise Switch	Not Supported	Optional	Provided

#### D. Internet Service – IP Address Allocation.

1. **ARIN.** For Internet service, public IP addresses will be provided in accordance with American Registry for Internet Numbers (“ARIN”) policies and guidelines. DQE reserves the right to administer public IP addresses assigned by DQE as required to meet any requirements of ARIN other Internet policies, which includes the option to renumber or reassign public IP addresses administered by DQE. Use of the Services by Customer for any purpose in violation of law shall constitute a default under the Agreement.
2. **IPv4 IP Address Assignments.** Customer acknowledges that due to the scarcity of IPv4 prefixes, the ARIN requires that DQE receive from Customer written justification (utilizing the standard DQE IP Justification Form) for IPv4 prefix IP address assignments prior to IPv4 prefix assignment. Customer must justify Customer's IP Address assignment by demonstrating that Customer has an immediate requirement for twenty-five percent (25%) of the IPv4 addresses being requested and a plan to utilize fifty percent (50%) of the requested assignment within one year of allocation. Customer's predicted or anticipated customers shall not be sufficient to establish Customer's need. Customer must efficiently utilize all previous allocations and at least 80% of their most recent allocation at the time of request in order to receive additional space.
3. **IPv6 IP Address Assignments.** Customer shall not be required to justify receipt of IPv6 prefix IP address assignments; provided, however, that if limitations on IPv6 are imposed by ARIN or its successor in administering IP addresses, IPv6 IP addresses shall be subject to such limitations.
4. **IP Address Reclamation.** DQE may, at its discretion, reclaim all IPv4 and IPv6 assignments at any time upon sixty (60) days' written notice and shall reallocate a smaller number of IPv4 and IPv6 assignments.

**E. Service Level Requirements.** DQE’s service level agreements (“SLA”) focus on four key areas – Availability, Packet Loss, Intra-Metro Latency (Delay), and Jitter. **NOTE: SLAs for the Highly Available Internet require diverse entrance and redundant switches.**

1. **Availability.** The Availability service level commitment for DQE’s Metro Ethernet Service is 99.99%. 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.

DQE Availability SLA Credit Formula					
Cumulative Unavailability (hrs:mins:secs)	SLA Credit				
	Metro Ethernet	Unprotected Metro Ethernet	Basic Internet	Dedicated Internet	Highly Available
00:00:05 to 00:04:30	N/A	N/A	N/A	N/A	5%
00:04:31 to 00:30:00	5%	N/A	N/A	5%	20%
00:30:01 to 02:00:00	20%	15%	5%	20%	30%
02:00:01 to 05:00:00	30%	25%	20%	30%	50%
05:00:01 to 24:00:00	50%	40%	30%	50%	75%
24:00:01 to 48:00:00	75%	65%	50%	75%	100%
48:00:01 or greater	100%	100%	100%	100%	100%

2. **Packet Loss.** The Packet Loss service level commitment for DQE’s Metro Ethernet Service is 0.001%. Packet Loss is the average number of Ethernet frames undelivered by DQE to the intended on-net destination in a calendar month.

DQE Packet Loss SLA Credit Formula				
Packet Delivery	SLA Credit			
	Metro Ethernet	Basic Internet	Dedicated Internet	Highly Available
99.998% to 99.900%	5%	N/A	5%	5%
99.899% to 98.000%	10%	N/A	10%	10%
97.999% to 95.000%	50%	N/A	50%	50%
94.999% or less	100%	N/A	100%	100%

3. **Intra-Metro Latency (Delay).** The Latency service level commitment for DQE’s Metro Ethernet Service is less than 5 ms. Latency is the measure of the average one-way network delay of Ethernet frames that transit the DQE network and are delivered by DQE to the intended on-net destination in a calendar month.

<b>DQE Latency SLA Credit Formula</b>				
<b>Latency SLA</b>	<b>SLA Credit</b>			
	<b>Metro Ethernet</b>	<b>Basic Internet</b>	<b>Dedicated Internet</b>	<b>Highly Available</b>
5 ms to 10 ms	5%	N/A	5%	5%
10 ms to 15 ms	50%	5%	50%	50%
15 ms or greater	100%	50%	100%	100%

4. **Jitter.** The Jitter service level commitment for DQE Metro Ethernet Service is less than 5ms. Jitter is the average variation in network delay between Ethernet frames of information that transit the DQE network and are delivered by DQE to the intended On-Net destination in a calendar month.

<b>DQE Jitter SLA Credit Formula</b>				
<b>Jitter</b>	<b>SLA Credit</b>			
	<b>Metro Ethernet</b>	<b>Basic Internet</b>	<b>Dedicated Internet</b>	<b>Highly Available</b>
5 ms to 10 ms	5%	N/A	N/A	N/A
10 ms to 15 ms	10%	N/A	N/A	N/A
15 ms to 20 ms	50%	N/A	N/A	N/A
20 ms or greater	100%	N/A	N/A	N/A

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 Online Terms and Conditions.
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 provided online at [www.dqecom.com](http://www.dqecom.com).

- 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 the Agreement.

- G. 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 ("Third Party Services" or "Type II Services"), 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 the 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 the 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.

- H. Scalability.** Some or all of DQE's services may be scalable, which will allow Customer on a periodic basis, to increase the level of bandwidth it desires to use. Customers have two options to address the ability to scale these applicable services in excess of their subscribed bandwidth levels.

- 1. Dial-Up Bandwidth:** this option allows customers to temporarily increase their bandwidth up to a maximum of the UNI capacity. Under this option, the Customer will be able to modify its bandwidth for such services by accessing the DQE Control Center Page (CCC) located at [ccc.dqecom.com](http://ccc.dqecom.com) and choosing the scalability feature for the DQE product for which the Customer desires to modify its bandwidth. The additional bandwidth is provisioned as EIR. Customer represents and warrants that it will distribute its DQE

CCC access (username/password) only to those employees authorized on behalf of Customer to modify Customer's bandwidth level. Through use of the Dial-Up feature, Customer shall be able to agree, by pressing an appropriately labeled key, to modify its level of bandwidth, provided that Customer shall not be permitted to decrease its bandwidth below the amount set forth on the applicable Customer Service Order. Customer hereby agrees that each time it presses the appropriately labeled key to invoke the Dial-Up scalability feature; it will pay the appropriate Service Fee, until such time, if any, that Customer again changes its bandwidth. Additional bandwidth is billed on a per day per Mbps basis. The standard Service Fee for invoking this feature is detailed below, and applies unless specified otherwise on the applicable Service Order. For purposes of computing the fee for the scalability feature only, a day is defined as any twenty-four (24) hour period or portion thereof. As consideration for having the ability to quickly modify bandwidth using the scalability feature, Customer waives any right it may have to a written amendment documenting the Parties' agreement to modify Customer's bandwidth or documenting Customer's obligation to pay the applicable Service Fee.

Standard Dial-Up Bandwidth Rates:

Metro Ethernet (E-Line) = \$0.75/Mbps per day

Metro Ethernet (E-LAN) = \$0.75/Mbps per day per site

Internet Services = \$1.50/Mbps per day

2. **Burstable Bandwidth:** this option allows customers traffic to burst above and beyond the Subscribed level, when the traffic dictates that it is needed. The service is provisioned above the Subscribed level with additional EIR to reach a Peak Information Rate (PIR). On a monthly basis, the 95<sup>th</sup> Percentile Calculation is used to determine if the Customer utilized the burstable bandwidth in a manner that results in additional charges. The resulting 95<sup>th</sup> Percentile Calculation is compared to the Subscribed service level. The amount of which the 95<sup>th</sup> Percentile Calculation is greater than the Subscribed Level is then compared to a Standard Rate Chart (shown below) in order to determine additional charges on a per Mbps per month basis. The Standard Rate Chart applies, unless specified otherwise on the applicable Service Order.

Standard Burstable Bandwidth Rate Chart:

If 0-10 Mbps in excess of Subscribed bandwidth = \$20/Mbps per month

If 10-50 Mbps in excess of Subscribed bandwidth = \$15/Mbps per month

If 50-100 Mbps in excess of Subscribed bandwidth = \$10/Mbps per month

If 100+Mbps in excess of Subscribed bandwidth = \$7.50/Mbps per month

- I. **Termination.** With respect to Metro Ethernet or Internet 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.