Case 15-M-0388 Charter/Time Warner Cable Transaction

Staff of the Department of Public Service <u>Interrogatory/Document Request</u>

Request No.: DPS-56

Requested By: DPS Staff

Date of Request: September 24, 2015

Reply Date: October 7, 2015

Subject: Follow up to IR 53

Request:

i. In response to DPS-53 (c), including Confidential Exhibit 53-A, Time Warner did not identify the number of upstream channels by hub location. Supplement exhibit to include upstream channel data.

Response:

In response to this question, please see attached Exhibit 56-A.

Request:

ii. In response to DPS-53(c), confirm that each downstream channel type identified in Exhibit 53-A individually occupies a 6 MHz bandwidth. If not, specify the occupied bandwidth of each channel type identified. Indicate same for any upstream channels active on the network.

Response:

Each downstream channel is 6 Mhz in bandwidth. On the upstream, in 5-42 Mhz systems, 2 channels are 3.2 Mhz wide and 2 channels are 6.4 Mhz wide. On the 5-30 Mhz systems, 1 channel is 3.2 Mhz and 1 channel is 6.4 Mhz.

Request:

iii. In response to DPS-53(c), restate the theoretical downstream and upstream speed response provided, by indicating the theoretical throughput (Mbps) per DOCSIS channel times the number of channels bonded (i.e., a single 256 QAM downstream channel theoretical throughput of X Mbps times X number of bonded channels = theoretical throughput of X Mbps downstream). Supplement this response by indicating reasons why (i.e., network design, data traffic patterns, etc.) marketed broadband speeds are not the same as theoretical or effective throughput speeds.

Response:

Each 6 Mhz wide 256 QAM downstream channel has a theoretical throughput of 42.88 Mbps. There is overhead associated with the protocols necessary to run each company's network, and every application on the internet has its own set of overhead associated with its operation, so the full theoretical throughput may not be available for ultimate usage by customers. Additionally,

Case 15-M-0388 Charter/Time Warner Cable Transaction

Staff of the Department of Public Service Interrogatory/Document Request

because all ISPs share bandwidth across multiple customers and multiple services, not all customers have exclusive use of the entire throughput at every point in time. Marketed speeds take into account real world network architectures and data usage patterns, and reflect speeds that are delivered consistently to customers throughout the country over a wide range of systems and system architectures.

Request:

iv. In response to DPS-53 (e), and based on current network provisioning and marketed services, provide a cost estimate to reliably offer higher broadband service capability across the Time Warner and Charter footprints (i.e., 300 mbps and 1 gbps service downstream, as opposed to the current 50 mbps Time Warner upstate and 100 mbps Charter service).

Response:

Providing an accurate response to this question would subject Time Warner Cable and Charter to significant burden and expense, requiring Petitioners to devote extensive amounts of time, resources, and budget to this task. For example, preparing an estimate for the 300 Mbps plan will take a month, if not longer. Preparing an estimate for the 1 Gbps plan will take longer than a month. Each Petitioner would need to engage in a significant shift of resources from the projects that the Petitioners are currently working on to address this new task. Thus, Petitioners are not able to respond to this request.

Request:

v. In response to DPS-53 (k), identify the build location and provide additional details with respect to network design, service offerings anticipated (i.e., video, voice, broadband and speeds), as well as decision making process for this particular build.



Respondent Name (witness or panel): Darron Butler, Senior Director, Network Planning [Time Warner Cable]; Greg Mott, VP – Regional Engineering [Charter] Date: October 7, 2015