

1 Q. **References: Tab E; Volume I: Projects over \$50,000 but less than \$200,000**
2 **(Replace Network Communications Equipment)**

3 Hydro states on page E16 that:

4 *Hydro currently has 36 Cisco 2800 and 1800 series routers in its*
5 *communications network that have been deemed End-of-Life since*
6 *2016. In 2019, Hydro proposes the replacement of 11 of these*
7 *routers with updated technology equivalents from the same vendor*
8 *(Cisco Systems). Cisco regularly releases software updates to*
9 *address any identified deficiencies as well as security updates. These*
10 *updates only continue until Cisco deems the devices End-of-Life as*
11 *per its product life cycle management.*

12
13 Please identify the steps Hydro has taken since 2016 and will continue to take until
14 all End-of-Life equipment has been replaced to address software deficiencies and
15 security updates.

16
17 A. Hydro has over 300 networking components comprised of switches, routers,
18 controllers, and firewalls. This project is part of an ongoing program to replace
19 select equipment on an annual basis based on criticality, age, reliability, and
20 support.

21
22 Each year since 2016, Hydro completes an annual review of equipment according to
23 the following steps:

- 24 1. Review the list of networking equipment and sort by model type.
- 25 2. Compare list against Cisco's End of Life publication and comprise a new list
- 26 showing the equipment in question.

- 1 3. Evaluate each piece of equipment and score one point for a yes to these
- 2 questions:
- 3 a. Is it within a 2-hour drive from one of Hydro's service locations?
- 4 b. Does Hydro have spare equipment of the same type readily
- 5 available?
- 6 c. Does its failure affect less than ten employees?
- 7 d. Is the software version current?
- 8 e. Will its failure only affect Hydro's administrative network and not its
- 9 SCADA?
- 10 f. Is the replacement cost less than \$3,000.00?
- 11 4. The equipment list is then prioritized based upon total scores with the lower
- 12 scores given higher priority. The final equipment replacement selection is
- 13 made by Hydro's Network Communication personnel based on the risk
- 14 presented by the scores and the personnel's experience.