

R-3888-2014

Response to the Régie's Request for Information No. 1

UNION DES CONSOMMATEURS (UC)

January 6, 2015

1. References:

- (i) Exhibit C-UC-0008, p. 18;
- (ii) Exhibit C-UC-0008, p. 20.

Preamble:

(i) "However, UC contends that maintenance and operating costs for aging assets cannot be compared with future costs for new assets. In fact, the Transmission Provider's aging network requires significant and ongoing maintenance

(ii) "If the Régie decided to approve the Transmission Provider's Network Upgrades Policy, which severely penalizes the native load, UC recommends at the very least a 40-year horizon and holding <u>maintenance and operating costs below 15%</u> when calculating the maximum allowance for native load projects.

"In UC's view, this method would at least have the benefit of mitigating the impact of the upgrades policy proposed for resource projects for the native load given this exceptionally unfavourable treatment when compared to how native load is treated elsewhere in North America [emphasis added]."

Questions:

1.1 Please reconcile the recommendation to use a maintenance and operating cost benchmark below 15% (reference (ii)) with quotation from reference (i).

Response:

In Exhibit B-001, page 11, the Transmission Provider stated:

For 2012, operating and maintenance costs are \$9.11/kW (\$380.2 M/41,744 MW), which equals 1.6% of capital cost on an annual basis. The data used to illustrate this percentage are the direct operating and maintenance costs and total forecast transmission demand. Calculated from present value over 20 years using a projected weighted average cost of capital of 5.698% for 2012, these costs equal 19% of the capital cost. Consequently, the Transmission Provider proposes holding the rate for operating and maintenance costs at 15% of capital cost.

UC understands that \$9.11/kW (or 1.6% of capital cost) is needed to maintain and operate the Transmission Provider's assets, regardless of the date of commissioning of the asset although, in general, this is an aging network. Therefore, UC submits that an annual value

of 1.6% does not adequately reflect the real costs of maintaining and operating a new asset. In other words, using an annual and recurring cost of 1.6% of capital cost to maintain and operate a new asset is equal to using an unchanging picture for a situation that is, in reality, evolving.

Table R-1.1a presents three scenarios in which maintenance and operating costs change every year based on the assumption — or the principle — that the older the asset, the higher its maintenance and operating costs.

Table R-1.1aScenarios for rising maintenance and operating costs —40-year horizon

Discount rate	5.666%		
Years	А	В	С
1	0.04%	0.05%	0.08%
2	0.08%	0.11%	0.16%
3	0.12%	0.16%	0.24%
4	0.16%	0.21%	0.32%
5	0.20%	0.27%	0.40%
6	0.24%	0.32%	0.48%
7	0.28%	0.37%	0.56%
8	0.32%	0.43%	0.64%
9	0.36%	0.48%	0.72%
10	0.40%	0.53%	0.80%
11	0.44%	0.59%	0.88%
12	0.48%	0.64%	0.96%
13	0.52%	0.69%	1.04%
14	0.56%	0.75%	1.12%
15	0.60%	0.80%	1.20%
16	0.64%	0.85%	1.28%
17	0.68%	0.91%	1.36%
18	0.72%	0.96%	1.44%
19	0.76%	1.01%	1.52%
20	0.80%	1.07%	1.60%
21	0.84%	1.12%	1.60%
22	0.88%	1.17%	1.60%
23	0.92%	1.23%	1.60%
24	0.96%	1.28%	1.60%
25	1.00%	1.33%	1.60%
26	1.04%	1.39%	1.60%
27	1.08%	1.44%	1.60%
28	1.12%	1.49%	1.60%
29	1.16%	1.55%	1.60%
30	1.20%	1.60%	1.60%
31	1.24%	1.60%	1.60%
32	1.28%	1.60%	1.60%
33	1.32%	1.60%	1.60%
34	1.36%	1.60%	1.60%
35	1.40%	1.60%	1.60%
36	1.44%	1.60%	1.60%
37	1.48%	1.60%	1.60%
38	1.52%	1.60%	1.60%
39	1.56%	1.60%	1.60%
40 Brocont volue	1.00%	1.60%	1.60%
	0.0%	. %	14.3%

In scenario A, annual costs increase on a linear basis over 40 years to finally reach 1.6%. Calculated from present value over 40 years with a projected weighted average cost of capital of 5.666%, these costs represent 8.6% of capital expenditure. UC has also prepared scenarios B and C, in which annual costs still grow linearly and reach 1.6% sooner, for present values of 11.1% and 14.5% respectively.

In the absence of more information on the growth of maintenance and operating costs for new capital expenditure,¹ UC considers scenario A to be the most realistic and recommends that the Transmission Provider's maximum allowance take into account, for the native load, a maintenance and operating rate of 8.6% of capital expenditure over 40 years.²

In Table R-1.1b, UC calculated what the maximum allowances for the native load would have been since 2006 if maintenance and operating costs had been fixed at 8.6% of capital expenditure over 40 years.

	Maintenance and Operating 15 %	Maintenance and Operating 8.6 %
2006	631	658
2007	648	675
2008	653	682
2009	717	748
2010	767	800
2011	725	757
2012	736	769
2014	771	806

Table R-1.1b
Maximum allowance by percentage of maintenance and operating costs relative to capital

cost (40-year period)

capital expenditure over 40 years. Table R-1.1b

UC's estimate takes into account the projected weighted average cost of capital, transmission rates and capital taxes up to 2010 associated with each decision. In addition, yearly maintenance and operating costs were calculated using the projected weighted average cost of capital and the 40year period to obtain a present value of 15% or 8.6% depending on the example.

Lastly, Table R-1.1c presents a simplified calculation of the contribution required from the Distributor based on the maximum allowances calculated in TableR-1.1b. The cumulative difference for the Distributor over 40 years would become a positive balance of \$122 million, which is the difference between the cumulative amount of \$167 million for 2014 and the projected amounts of \$289.4 million specified in R-3823-2012, Exhibit HQT-12,

¹ In its request for information to the Transmission Provider, UC tried in vain to obtain this information (see responses to questions 6.2 and 6.3, HQT-4, Document 7).

² For example, with a discount rate of 5.666% over 40 years, the maximum allowance for 2014 would produce yearly maintenance and operating costs of 0.55% of capital cost.

Document 2, page 13, for 2013 and 2014.

Table R-1.1c

Estimate of Distributor's contribution (over 40 years)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total MW increase over 40	865	106	369	460	429	229	230	551	190
years – Loads									
HQT maximum allowance (\$M)	569	72	252	344	343	173	177	424	153
– Loads									
HQT total capital cost (\$M) –	143	58	140	173	170	126	105	296	389
Loads									
HQT total capital cost (\$M) –	26	18	62	122	22	214	210	231	169
Resources									
Yearly difference	400	-4	50	49	151	-167	-138	-103	-405
Multi-year difference	400	396	445	494	646	479	341	237	-167

1.2 Please clarify and justify your recommendation regarding the rate for maintenance and operating costs.

Response:

See response to question 1.1