



Jan 4th, 2019

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Subject: Notice No. DGSO-001-18: Consultation on Licence Fees for Fixed Point-to-Point Radio Systems, Canada Gazette, Part I, Vol. 152, No. 48

The Canadian Electricity Association (CEA) welcomes the opportunity to comment on the Consultation on Licence Fees for Fixed Point-to-Point Radio Systems, published online November 15th, 2018 and in print on December 1st, respectfully submits the following feedback.

The Canadian Electricity Association

The CEA is a trade association representing a broad range of companies that generate, transmit, distribute, and market electricity to industrial, commercial, and residential customers across Canada. Canada's electrical grid is 80% non-emitting and getting cleaner every year. CEA members, the Canadian Electrical Utilities (CEUs) are key to the electrification of Canada's economy and the country's clean growth future.

Electric utilities need telecommunications networks to: 1) maintain secure and dependable tele-protection systems, 2) monitor and control electric infrastructure, and 3) enable the safe and efficient dispatch of their field workforce for routine and recovery operations.

Utilities typically make use of both commercial services and private networks. This combination often provides the best overall cost, performance, resiliency, and coverage. CEA members operate infrastructure across Canada in the largest cities and, due to remote electrification mandates and distant generation assets, in the most remote populated regions. They require a range of telecommunications options that can overcome the challenges posed by this diverse geography.





Response to ISED invitation for comments

Q1: ISED invites comments on the proposed consumption-based fee model for the radio licence fees under consideration.

CEA members are generally unsure if the proposed changes will be good for the Canadian electricity industry as each major utility has, for reasons relating to geography, technical requirements and available technology of the time, built their networks using different spectrum. However, because CEUs usually operate over large geographic areas they tend to use lower MHz spectrum.

Subsequently, based on calculations done through publicly accessible data many, but not all, CEA members will see fee increases under the proposed consumption-based model (see Appendix A). Furthermore, utilities across Canada are planning for smart grid deployments that will use the 1815 MHz spectrum in Point-to-Multipoint configuration, which sees a large fee increase under the new model. Subsequently not just old developments but new developments as well will see higher fees, as noted in box 1.1

CEA recognizes that the goal of the consultation is to promote spectrum use efficiency and it appears to do so by valuing more useful spectrum at higher rates and charging on a MHz consumed versus a flat rate based around channels.

The problem is that while a single base station serves many remotes each remote is treated as another link even though the same frequency is being reused. These multi-point systems are inherently spectrum efficient, but the new fee proposal penalizes them. The department has identified this problem previously in prior policies [IPC-2-1-14]. CEA also believes that this consultation makes tangential reference to this challenge by removing the fee for TDD links, and links that use cross polarity with the same frequency.

1.1 CEA Member Case Study

In Ontario, Alectra Utilities will see a more than 100% fee increase for the use of its existing 1815 MHz systems. Most of these 1815 MHz connections are to provide telemetry for disparate solar photovoltaic generators. Any fee increases will be passed to those customers and will thus be a burden on renewable energy deployment. Alectra plans on approximately doubling its use of 1815 MHz for smart grid devices in the near term but the fee increase will cause a reexamination of deployment plans making the proposed fee structure also a burden on building the Canadian smart grid.





As proposed the new structure will cause cost increases to CEUs who are critical infrastructure. The proposed fees also appear to and make it costlier to provide rural and remote areas with broadband as these areas favour lower MHz systems that can serve larger areas just as CEUs do. These are issues that CEA also raised in our submission to the [600 MHz spectrum licensing consultation in November 2017](#) outlook. However, CEA believes that a good compromise is possible that will satisfy the policy goals of the consultation as well as the needs of CEUs and rural/remote customers.

Because multipoint systems are inherently more spectrum efficient than point to point systems CEA proposes to add a term to the proposed fees to the effect that in a multi-point system an operator is not charged for additional connections after the first. This recommendation is in agreement with industry consensus [RABC response to DGSO-001-18].

CEA believes that this approach would be good compromise because it would keep the consumption-based fees proposed, which should promote efficient use of valuable spectrum as well as favouring multipoint systems. The result will be not unduly penalizing the utilities of Canada or rural/remote communities. We have not analysed rural and remote network impacts or implications for other P-MP operators but just as CEUs operating across large geographic regions would not see significant fee changes neither should rural/remote broadband providers.

Q2: ISED invites proposals for a fee escalator that takes into account fee predictability for the radio licence fees under consideration.

- CEA members agree that using consumer price index (CPI) to calculate fee increases is a perfectly good system that should continue.
- CPI is predictable enough to make long-term business decisions and it is a simple, publicly accessible, metric. What CPI loses in absolute predictability it makes up in operational efficiency.

Q3: ISED invites comments on the proposals for minimum fees, short-duration licence fees and prorated fees.

- CEA members do not directly oppose the minimum fees proposal of \$70, an increase of \$2 from the current fee of \$68 per connection. CEA does question the language used to describe this proposal however. Adding 2.9% to a fee does not make it simpler, consistent, or standardized but seems to increase it with CPI. The reasoning behind the





fee increase is thus in question and CEA requests greater clarification on the reasoning for the fee increase.

- While CEA members do not regularly need to use short duration licenses we do not discount their potential utility; CEA supports this proposal.
- The question of prorated fees based on the month of registration seems very reasonable and fits a good model of fees based on consumption instead of absolute fees. CEA supports the proposal for prorated fees.

Other Concerns and Comments

CEA members are in favour of 1.4 GHz spectrum fee structure [CPC-2-1-11] already in place for telemetry. As technical needs have advanced so have the telemetry needs especially for the smart grid. Because of this, if the Department does not accept the industry recommendation for P-MP systems, CEA requests ISED consider the alternative of applying the 1.4 GHz spectrum fee approach to the 1.8 GHz band. This will allow the growth of renewable energy deployments and smart grids, both of which are key to Canada's clean energy future.

Regarding rural and remote Canada, CEA notes that the policy change may impact the economic feasibility of delivering rural services, including smart grids. In remote areas less spectrum efficient systems may be used to reduce network cost or increase reliability and link budgets. These areas are typically not congested and maximizing spectral efficiency may not be the most effective deployment approach. ISED should consider an approach which does not increase the fee burden on remote operators in uncongested areas.

All of which is respectfully submitted

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Appendix 1

Canadian Electric Utility	Current Fees (\$)	Fees Under New Bandwidth-Based Structure (\$)	Fee Increase (\$)
REDACTED	80,526	183,690	103,164.00
REDACTED	14,390	36,000	21,610.00
REDACTED	3,558	9,450	5,892.00
REDACTED	2,432	4,950	2,518.00
REDACTED	1,858	3,825	1,967.00
REDACTED	1,488	3,375	1,887.00
REDACTED	1,044	2,700	1,656.00
REDACTED	1,500	2,362.50	862.50
REDACTED	64,362	65,631.28	725.28
REDACTED	4,432	5,120	688.00
REDACTED	574	1,125	551.00
REDACTED	3,408	3,840	432.00
REDACTED	800	960	160.00
REDACTED	272	272	0.00
REDACTED	884	884	0.00
REDACTED	1,224	1,224	0.00
REDACTED	272	272	0.00
REDACTED	544	544	0.00
REDACTED	544	544	0.00
REDACTED	272	272	0.00



Canadian Electric Utility	Current Fees (\$)	Fees Under New Bandwidth-Based Structure (\$)	Fee Increase (\$)
REDACTED	816	816	0.00
REDACTED	136	136	0.00
REDACTED	68	68	0.00
REDACTED	272	272	0.00
REDACTED	864	810	-54.00
REDACTED	400	340	-60.00
REDACTED	1,456	1,360	-96.00
REDACTED	3,460	2,865	-595.00
REDACTED	3,070	1,770	-1,300.00
REDACTED	13,732	9,928	-3,804.00
REDACTED	620,920	629,010.38	-7,048.32
REDACTED	78,660	63,172	-15,760.00
REDACTED	214,724	187,193.84	-31,882.16
REDACTED	329,458	293,915.10	-35,542.90
REDACTED	107,832	45,833.60	-61,998.40
REDACTED	559,544	512,319.96	-62,872.04
REDACTED	390,284	314,205.60	-77,438.40

