

**BEFORE THE  
CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION**

**Telecom Regulatory Policy CRTC 2021-130**

**AFFIDAVIT OF CHRISTIAN M. DIPPON, PH.D.**

I, CHRISTIAN M. DIPPON, of the City of Washington, District of Columbia, HEREBY MAKE  
OATH AND SAY:

1. I am the same Christian M. Dippon who filed expert reports in Telecom Regulatory Policy CRTC 2019-57 in May and November of 2019 and testified before the Canadian Radio-Television and Telecommunications Commission (CRTC) in February 2020.<sup>1</sup> In addition to the work performed in forming the opinions expressed in my reports and oral testimony and my ongoing research of this topic, I have reviewed the CRTC's decision in Telecom Regulatory Policy CRTC 2021-130.<sup>2</sup>
2. As part of its decision, the Commission stated, "[A]lmost all international reports and studies that were submitted or referred to throughout this proceeding, despite using different methodologies and different datasets, pointed to similar conclusions and consistently reported higher retail prices in Canada."<sup>3</sup> The Commission highlighted that an international price ranking study that I conducted is "one notable exception ... which

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<sup>1</sup> See Telecom Notice of Consultation CRTC 2019-57, *Review of mobile wireless services*, Intervention of TELUS, May 15, 2019, Appendix C Expert Report of Christian M. Dippon Ph.D., "An Examination of the Regulatory Framework for Mobile Virtual Network Operators and Other Wholesale Mobile Services," May 15, 2019 (hereinafter First Report); see also Telecom Notice of Consultation CRTC 2019-57 *Review of mobile wireless services*, Further Comments of TELUS, November 22, 2019, Appendix 2, Reply Expert Report of Christian M. Dippon Ph.D., "Assessing the Economic Impact of Mobile Virtual Network Operators and Regulated Wholesale Access Models," November 22, 2019 (hereinafter Second Report); see also Oral Testimony of Christian M. Dippon, Ph.D., February 20, 2020.

<sup>2</sup> See Canadian Radio-television and Telecommunications Commission, Telecom Regulatory Policy CRTC 2021-130, *Review of mobile wireless services*, April 15, 2021 (hereinafter CRTC Decision).

<sup>3</sup> Ibid, ¶ 120.

came to a different conclusion.”<sup>4</sup> Commenting only on this one specific study, the CRTC opined that it was subject to a selection bias. Specifically, the CRTC notes:

Despite the fact that the study appears to generally be using a sound methodology, the study has a significant flaw insofar as it uses an unrepresentative sample of Canadian retail mobile wireless service plans. This serves to artificially lower the average price index used in the study, and leads to underestimating the prices Canadians actually pay for retail mobile wireless services. In the Commission’s view, this selection bias in the data sheds doubt on the validity of the conclusions drawn in the study.<sup>5</sup>

3. TELUS has requested that I review and respond to the CRTC’s opinion that the NERA Study is a “notable exception” subject to “a significant flaw insofar as it uses an unrepresentative sample of Canadian retail mobile wireless service plans.”<sup>6</sup>
4. As explained in this affidavit, the CRTC is wrong on both counts. The CRTC’s explanation of the alleged study flaw demonstrates a fundamental misunderstanding of the NERA Study. The CRTC also misses the fact that the sample of Canadian plans follows the directive of Innovation, Science, and Economic Development (ISED) and is identical to the sample design in the Wall and Nordicity studies, which the CRTC cites favorably. The CRTC also omits the fact that NERA *improved* on this sample design with additional data sources that include using TELUS’ most popular plans as well as several sensitivity analyses that ensure a representative sample design. This ensures that there is no geographic, provider, plan, or other sampling bias. Consequently, the CRTC’s concern about an unrepresentative sample is misplaced.

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<sup>4</sup> CRTC Decision, ¶ 121, referencing Telecom Notice of Consultation CRTC 2019-57 *Review of mobile wireless services*, Intervention of TELUS, May 15, 2019, Appendix B Christian M. Dippon, Ph.D., “An Accurate Comparison of Communications Services in Canada and Select Foreign Jurisdictions,” NERA Economic Consulting, October 19, 2018 (hereinafter the NERA Study).

<sup>5</sup> CRTC Decision, ¶ 121.

<sup>6</sup> Ibid.

5. The CRTC ignores all criticism of other studies and overlooks the fact that a study commissioned by the US mobile wireless association (the CTIA) confirms the results in the NERA Study.<sup>7</sup> TELUS submitted said study to the CRTC as Attachment #4 to TELUS Response to Undertaking (CRTC) 20Feb20-11 and referenced the study in its Final Comments dated July 15, 2020.

**THE CRTC DEMONSTRATES A FUNDAMENTAL MISUNDERSTANDING OF NERA'S STUDY**

6. The CRTC limits its concerns with the NERA Study to the representativeness of the *Canadian mobile wireless plans* in the study's database. The CRTC finds, "[T]he study appears to generally be using a sound methodology."<sup>8</sup> Moreover, it raises no concerns regarding the representativeness of the international mobile wireless plans in the database. Specifically, the CRTC claims that the database consists of an "unrepresentative sample of Canadian retail mobile wireless service plans" that "serves to artificially lower the average price index in the study, and leads to underestimating the prices Canadians actually pay ...."<sup>9</sup> Before addressing the CRTC's concern with the Canadian plan sample, I note that the CRTC's description of the NERA Study indicates that the CRTC misunderstood the study in several important respects.
7. First, the CRTC incorrectly states that the NERA Study uses a price index.<sup>10</sup> However, there is no price index in the NERA Study, and the accompanying report does *not* use this term in explaining the study. A price index measures the change in the price of goods and

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<sup>7</sup> CTIA Press Release, "America's Wireless Customers Get the Most Value for their Money, New 36-Country Study Shows," March 2, 2020, <https://www.ctia.org/news/press-release-americas-wireless-customers-get-the-most-value-for-their-money>, referring to "A Comparison of the Mobile Wireless Value Proposition," by Christian M. Dippon, PhD and Jason Claman, NERA Economic Consulting, March 2, 2020 (hereinafter CTIA Study).

<sup>8</sup> CRTC Decision, ¶ 121.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

services relative to a base year or the price difference between locations. The NERA Study is fundamentally different from a price index because it: (a) does not track prices over time, (b) does not measure price changes over time, and (c) does not index price changes to a base year or location. Rather, as explained, the study “build[s] a database of retail prices for ISED’s study baskets, countries, cities, and providers, including promotions.”<sup>11</sup> It then determines “the statistical relationship between prices and plan, network, and country characteristics in the benchmark countries.”<sup>12</sup> Based on this relationship, it forecasts “the retail prices that the average international provider would charge for the Canadian plans in the study.”<sup>13</sup>

8. Second, the CRTC incorrectly states that the NERA Study estimates “the prices Canadians actually pay for retail mobile wireless services.”<sup>14</sup> However, the study uses *actual* Canadian prices. The NERA Study only estimates “the prices an *international* provider would charge in Canada for the Canadian plans in the database.”<sup>15</sup>
9. Third, the CRTC’s claim is incomplete. The CRTC offers no support for its claim that the alleged sample bias results in an underestimation. Even if one assumes an unrepresentative sample (which is an incorrect assumption), such an observation is insufficient to conclude that the study underestimates the prices that Canadians pay. In fact, such a sample can also yield the opposite result.

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<sup>11</sup> NERA Study, p. vi.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> CRTC Decision, ¶ 121.

<sup>15</sup> NERA Study, p. v (emphasis added).

### **THE CRTC'S CONCERN ABOUT AN UNREPRESENTATIVE SAMPLE IS MISPLACED**

10. The CRTC's complete misunderstanding of the NERA Study explains its incorrect conclusion that the study "uses an unrepresentative sample of Canadian retail mobile wireless service plans."<sup>16</sup> The CRTC offers no explanation as to why it finds the Canadian plan sample in the NERA database unrepresentative. The CRTC also misses the fact that NERA built the database following the sampling requirements requested by ISED. NERA's plan sampling is *identical* to the sample designs in the Wall and Nordicity studies, which the CRTC cites favorably. As I explain in the following section, the CRTC also overlooked several important improvements that NERA made to the Canadian sample and the overall study. These improvements confirm that there is no Canadian sample plan bias or any other selection bias.

### **THERE IS NO GEOGRAPHIC PLAN SAMPLE BIAS**

11. The NERA Study sampled from the *same* cities as requested by ISED and used in the Wall and Nordicity reports. These cities consist of Halifax, Montreal, Toronto, Winnipeg, Regina, and Vancouver.<sup>17</sup> Moreover, NERA reports its results on a city level. This allows the CRTC to examine whether the results are driven by ISED's prescribed sample of Canadian cities. As explained in the NERA Study, "[T]here are no significant differences relative to the international benchmark across Canadian cities."<sup>18</sup> Rather, in each city, Canadian providers price *below* what international providers would charge for the same

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<sup>16</sup> CRTC Decision, ¶ 121.

<sup>17</sup> See NERA Study, p. 4; see also NGL Nordicity Group Ltd. "2017 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions," October 5, 2017, p. 3; see also Wall Communications Inc., "Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions 2018 Edition," August 29th, 2018, Prepared for Innovation, Science and Economic Development Canada, p. i.

<sup>18</sup> NERA Study, p. 35.

plan. The table below is a reproduction of a table in the NERA Study that reports NERA’s findings by city. For instance, for Halifax, the database contains a total of 39 Canadian plans. Of these plans, 13 plans (33 percent) are priced above the international benchmark, whereas the remaining 26 plans (67 percent) are priced lower than the same benchmark. Overall, of the 246 Canadian sample plans that were part of this one model run, 197 plans, or 80 percent, were priced below the international benchmark.

*Table 10 City-Level Results – Mobile Wireless Telephony*

Result	Halifax		Montreal		Regina		Toronto		Vancouver	
	#	%	#	%	#	%	#	%	#	%
⬆ Above Benchmark	13	33	6	15	5	12	9	21	10	24
⬇ Below Benchmark	26	67	33	85	37	88	33	79	32	76
Total	39	100	39	100	42	100	42	100	42	100

  

Result	Winnipeg		Total	
	#	%	#	%
⬆ Above Benchmark	6	14	49	20
⬇ Below Benchmark	36	86	197	80
Total	42	100	246	100

As I explain in the following, two additional models that apply even larger samples confirm this first model that finds Canadian prices below the international benchmark. Given its geographic consistency with ISED, Wall, and Nordicity and considering the city-level results, the geographic sampling in the NERA Study cannot be a source of the CRTC’s alleged sample bias.

### **THERE IS NO PROVIDER SAMPLE BIAS**

12. The NERA Study followed ISED’s sample selection requirements and sampled from the *same* providers as those used in the report. Specifically, ISED requires, “The Study must examine prices offered by the major wireless service providers in the Canadian market

along with three Mobile Virtual Network Operators (MVNO) or resellers.”<sup>19</sup> The 2017

Nordicity report states:

The Canadian price data were collected from a wide range of telecommunications service providers (TSPs) including incumbent telephone companies (for example Bell Canada, SaskTel, and Telus) and incumbent cable companies (for example Eastlink, Videotron, Rogers, and Shaw). For Mobile Wireless (Telephony and Broadband), the Study includes service price data from four resellers, including Primus, PC Mobile, Petro-Canada Mobile and 7-Eleven Speakout. Furthermore, the Study includes services provided by Mobile Wireless flanker brands such as Koodo, Public Mobile, Chatr, Fido, and Virgin, as well as more regional operators in the mobile market such as SaskTel, Bell-MTS, Videotron, Eastlink and Freedom Mobile.<sup>20</sup>

13. The NERA Study uses the *same* Canadian mobile wireless providers as those in the 2017 Nordicity Report prepared for ISED with the sole exception of including a second Bell flanker brand Lucky Mobile, which was newly available in the market. In addition, unlike the Wall and Nordicity reports, NERA also reports its results at the provider level. This allows the CRTC to examine whether NERA’s results are driven by certain providers, especially smaller discount providers. As explained in the NERA Study, “Ultimately, whether it is a national or regional provider or an MVNO, the providers price most of their plans below the international threshold.”<sup>21</sup> The table below is a reproduction of a table in the NERA Study that reports NERA’s findings by provider.

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<sup>19</sup> ISED, Request for Proposal, # 401706, “Name of Project: 2018 Price Comparison Study of Communications Services in Canada and Select Foreign Jurisdictions,” February 8, 2018, pp. 5–6.

<sup>20</sup> NGL Nordicity Group Ltd. (Nordicity), “2017 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions,” Prepared for: Innovation, Science and Economic Development Canada (ISED), October 5, 2017, p. 22 (footnote omitted); see also, Wall Communications Inc., “Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions 2018 Edition,” August 29th, 2018, Prepared for Innovation, Science and Economic Development Canada, p. 11.

<sup>21</sup> NERA Study, p. 34.

*Table 9 Provider-level Results – Mobile Wireless Telephony*

Result	7-Eleven		Bell		Chatr		Eastlink		Fido	
	#	%	#	%	#	%	#	%	#	%
⬆ Above Benchmark	6	33	2	11	0	0	2	67	5	28
⬇ Below Benchmark	12	67	16	89	18	100	1	33	13	72
<b>Total</b>	<b>18</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>18</b>	<b>100</b>

  

Result	Freedom		Koodo		Lucky Mobile		MTS		PC Mobile	
	#	%	#	%	#	%	#	%	#	%
⬆ Above Benchmark	0	0	0	0	0	0	1	33	6	33
⬇ Below Benchmark	6	100	18	100	12	100	2	67	12	67
<b>Total</b>	<b>6</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>18</b>	<b>100</b>

  

Result	Petro-Canada		Primus		Public Mobile		Rogers		SaskTel	
	#	%	#	%	#	%	#	%	#	%
⬆ Above Benchmark	6	33	0	0	0	0	12	67	0	0
⬇ Below Benchmark	12	67	18	100	18	100	6	33	3	100
<b>Total</b>	<b>18</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>3</b>	<b>100</b>

  

Result	TELUS		Videotron		Virgin		Total	
	#	%	#	%	#	%	#	%
⬆ Above Benchmark	3	17	0	0	6	33	49	20
⬇ Below Benchmark	15	83	3	100	12	67	197	80
<b>Total</b>	<b>18</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>246</b>	<b>100</b>

14. The providers covered in the NERA Study are consistent with both the Wall and Nordicity studies. Moreover, considering the provider-level results, the provider sampling in the NERA Study cannot be a source of the CRTC's alleged sample bias.

### **THERE IS NO PLAN SAMPLE BIAS**

15. For each sample provider in each sample city, the NERA Study benchmarked three actual plans (entry, mid, and high data consumption) to the international benchmark. To ensure that the results were not driven by the selection of three evaluation plans, the NERA Study also includes a robustness check that evaluates seven plans for each provider in each city. As explained in the NERA Study:

In this robustness check, the plan database is expanded for all Canadian services (mobile wireless telephony, mobile broadband Internet, and fixed broadband Internet) by selecting two additional plans between the entry and mid consumption plans as well as two plans between the mid and high consumption ones as available. This higher plan count for Canada is then compared against the international benchmark forecasts to examine whether the initial results would change. They did not.

For the mobile wireless telephony service basket, forecasting Canadian prices using the augmented database results in 79.9 percent of the plans being priced *below* international benchmarks compared with 80.1 percent from the initial run. The percentage of mobile broadband Internet plans less expensive than their international counterparts' drops from 80.2 percent in the initial run to 66.5 percent using the augmented database.<sup>22</sup>

The robustness of the NERA results relative to the size of the plan sample demonstrates that there is no plan sample bias, even using only three observations.

16. I note that by increasing the sample size from three to seven plans, the NERA Study uses a richer sample than used by either Wall or Nordicity. For mobile wireless telephony, Wall's and Nordicity's sample size is six, whereas for mobile wireless Internet they both use a sample of three observations.<sup>23</sup>
17. The NERA Study also considered that not all plans appeal equally to Canadian consumers by "benchmark[ing] TELUS' most popular plans against the international benchmark."<sup>24</sup> This is an important and unique addition to international price ranking studies. No other study, including those by Wall and Nordicity, considers consumer take-up rates, which demonstrates that consumers do not value all retail plans equally. As explained in the NERA Study, "This is to ensure that the revised study results also apply to the plans most frequently purchased by TELUS mobile subscribers."<sup>25</sup> As the NERA

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<sup>22</sup> Ibid, pp. 43–44.

<sup>23</sup> See, e.g., Wall Communications Inc., "Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions 2018 Edition," August 29th, 2018, Prepared for Innovation, Science and Economic Development Canada, p. 10.

<sup>24</sup> NERA Study, p. 44.

<sup>25</sup> Ibid.

Study notes, “With no access to the same data from other providers, this robustness check is limited to TELUS mobile wireless subscribers only.”<sup>26</sup>

18. Benchmarking TELUS’ most popular plans increases the sample count for TELUS and Koodo from 7 to 62 and 12, respectively. Approximately 40 percent of TELUS subscribers or approximately 3.6 million Canadians purchase the plans included in this third sample.<sup>27</sup> Benchmarking estimated international prices against this larger Canadian plan sample confirms the results of the smaller sample runs. Specifically:

Evaluating the voice-data combinations against the international benchmark reveals 68.8 percent of TELUS’ most popular plans are less expensive than what an international provider would charge for the same plans. Evaluating the data-voice combinations against the international benchmark reveals that TELUS prices 55.00 percent of its most popular mobile wireless plans below the international norm.<sup>28</sup>

19. The NERA Study shows that Canadian prices are below the international benchmark. This result remains unchanged regardless of whether the sample size is three plans per provider in each city, seven plans per provider in each city, or whether the TELUS sample count includes  $62+12 = 74$  plans that represent the plan choices of over 3.6 million Canadians. This additional analysis demonstrates that the plan sampling in the NERA Study cannot be a source of the CRTC’s alleged sample bias.

### **THE NERA STUDY IS NOT A NOTABLE EXCEPTION**

20. The CRTC’s determination overlooks the fact that the NERA Study is not the only study that finds Canadian mobile wireless prices below international benchmark prices. Specifically, in 2020, the CTIA commissioned NERA to conduct a study of the US

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<sup>26</sup> Ibid.

<sup>27</sup> Ibid, fn. 76; see also TELUS Communications Inc., Annual Report, 2018, p. 17.

<sup>28</sup> Ibid, p. 44.

mobile wireless value proposition relative to 36 other countries.<sup>29</sup> This study used a different methodology than the NERA Study for Canada. It also used a different database with different geographic, provider, and plan samples. Rather than using the G7 plus Australia as the benchmark countries, the CTIA study uses the 36 OECD countries. In addition, instead of using the providers requested by ISED, the study relies on the three largest providers by subscriber share, the two largest flanker brands, and the two largest independently owned MVNOs. Further, rather than using a sample of three, seven, or the most popular plans, the CTIA study harvested actual plan data from three prepaid plans and four postpaid plans. As the study was conducted in 2020, it naturally also covers a different study period than the NERA Study for Canada.

21. However, despite these differences in methodology, database, and plan sampling, the CTIA study rejects a claim of “higher retail prices in Canada.”<sup>30</sup> Canada ranked best in the G7+Australia comparator group, which is consistent with the findings of the NERA Study in Canada.<sup>31</sup> Canada ranked 6th out of 17 in a comparator group consisting of the European Union’s 15 nations, the United States, and Canada.<sup>32</sup> Canada’s mobile wireless retail prices ranked cheapest against a comparator group that consists of nine countries with similar regulatory regimes.<sup>33</sup> The CTIA Study demonstrates that the NERA Study is not the *notable exception* that the CRTC claims it is.

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<sup>29</sup> See CTIA Study.

<sup>30</sup> CRTC Decision, ¶ 120.

<sup>31</sup> See NERA Study, p. vii.

<sup>32</sup> See CTIA Study, p. 23.

<sup>33</sup> Ibid, p. 25.

### **OTHER INTERNATIONAL STUDIES ARE KNOWINGLY FLAWED**

22. The CRTC also does not appear to have considered the errors in “international reports and studies that were submitted or referred to throughout this proceeding.”<sup>34</sup> As I explained in my Second Report in CRTC 2019-57, there is no evidence in the present matter that entails a review of “other studies being cited in this proceeding, such as Wall/Nordicity, Rewheel, and tefficient that find Canada’s prices high relative to other countries.”<sup>35</sup> Rather, parties accepted these studies without any scrutiny and without even examining the underlying database and thus their sampling protocol.<sup>36</sup> Yet, there is a growing body of literature that finds critical flaws in these studies. For instance, a 2020 review of Rewheel’s international price comparison authored by 24 industry experts and academics “find[s] the Rewheel rankings to lack academic rigor owing to an unsuitable analytical concept, unrealistic assumptions, and the omission of market place realities.”<sup>37</sup>
23. It is also misguided to examine the various price ranking studies on the record in CRTC 2019-57 as independent studies. They often share similar roots and use similar approaches. For instance, the studies conducted by Wall and Nordicity are outgrowths of an approach proposed by the OECD.<sup>38</sup> They also all follow the same methodology that ISED imposed on the study. The Rewheel and tefficient studies measure prices on a per megabyte of data basis without accounting for network or country attributes and assume

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<sup>34</sup> CRTC Decision, ¶ 120.

<sup>35</sup> Second Report, ¶ 19.

<sup>36</sup> Ibid.

<sup>37</sup> Christian Dippon, Ph.D, James Alleman, Ph.D, Teodosio Pérez Amaral, Ph.D, et al. “Adding a Warning Label to Rewheel’s International Price Comparison and Competitiveness Rankings,” NERA Economic Consulting, 2020, pp. 1–2, <https://www.nera.com/publications/archive/2020/the-case-for-adding-a-warning-label-to-rewheel-s-international-p.html>.

<sup>38</sup> Wall Communications Inc., “An Examination of Alternative Approaches for Conducting Prices Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions,” Prepared for the Canadian Radio-television and Telecommunications Commission and Industry Canada, May 5, 2008, pp. 6–7.

that the entire value of a plan is explained by the data portion of the plan. Consequently, they share similar errors and thus similarly flawed results. As I explained, these “international price comparisons ... compare the prices of *artificial* baskets of services or *theoretical* measures of how many megabytes of data one can buy for an assumed budget.”<sup>39</sup> As the British regulator Ofcom eloquently stated, “Over time we found that it was becoming increasingly difficult to verify or have confidence on the comparability of the data across countries owing to differing techniques for measurement.”<sup>40</sup>

### CONCLUSION

24. The NERA Study is not subject to a sample bias and it is not an exception in terms of its findings. Considering its incorrect description of the NERA Study, it appears that the CRTC did not understand the study. In addition, the CRTC overlooked the fact that the Canadian sample (which is at the heart of its concern) follows the directives issued by ISED and is identical to the sampling protocol followed by Wall and Nordicity. The CRTC also overlooked several important improvements that NERA made to the sampling protocol.
- *There is no geographic bias in the NERA Study.* NERA uses the same cities as those requested by ISED and relied upon by Wall and Nordicity. City-specific results confirm that the city selection is not the source of a sample bias.
  - *There is no provider bias in the NERA Study.* NERA follows ISED’s guidance and uses the same provider list as Wall and Nordicity. Provider-specific results confirm that the provider selection is not the source of a sample bias.
  - *There is no plan bias in the NERA Study.* NERA used three sampling procedures, each confirming the overall result. First, it benchmarked the international prices against three plans offered by all study providers in the study cities. Second, it increased this count to

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<sup>39</sup> Second Report, ¶ 38.

<sup>40</sup> Ibid.

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seven plans per Canadian provider and city. Third, to capture actual plan selection, it benchmarked the plans selected by some 40 percent of TELUS subscribers.

25. The NERA Study is also not an outlier in the relevant body of literature. A US study commissioned by the CTIA confirms the results in the NERA Study. A growing body of literature dismisses other studies that the CRTC is citing favorably.
26. Based on my review of the CRTC's concerns, I respectfully disagree with the CRTC's claim. The NERA Study is not subject to a significant flaw and it does not stand alone in its finding that Canada's mobile wireless retail prices are in line, if not better, than international pricing.

SWORN before me at the City of Washington in the District of Columbia this 21st day of September, 2021

Ce. D.  
Signature  
09/21/2021  
Date

Washington, District of Columbia  
The foregoing instrument was subscribed and sworn before  
me this 21<sup>st</sup> day of September, 2021  
by Darlene Francesca Rogers  
[Signature] Notary Public  
My commission expires August 14, 2024

[Signature]  
Notary Public or Commissioner of Oaths (affix seal)

