



File No. 8620-R63-201705675

2018 05 03

To: Mr. Claude Doucet  
Secretary General  
Canadian Radio-television and  
Telecommunications Commission  
Ottawa, Ontario  
K1A 0N2

Subject: **Part 1 Application by TNW Wireless Inc. relating to wholesale roaming agreements required under Telecom Regulatory Policy 2015-177 – Supplemental Answer**

Dear Mr. Doucet,

1. Bell Mobility Inc. (Bell) files this Supplemental Answer in accordance with the directions in a Commission staff procedural letter, dated 23 March 2018, in which TNW Wireless Inc. (TNW) was provided with an opportunity to "supplement as appropriate, in light of Telecom Decision CRTC 2018-97" its above-referenced application, dated 3 July 2017. Accordingly, we hereby provide this Supplemental Answer in response to TNW's 13 April 2018 Supplemental Application.

2. TNW has repeated and relied upon its earlier pleadings.<sup>1</sup> Its latest submission contains the same five requests for Commission relief as in its original 3 July 2017 Application.<sup>2</sup> For this reason, we too repeat and rely on the facts and submissions set out in our 4 August 2017 Answer.

3. We have directed this Supplemental Answer to respond to TNW's 13 April 2018 claim that its 3 July 2017 application is not only consistent with the Commission's pre-existing roaming rules from Decision 2017-56<sup>3</sup>, but that its application also now aligns with the Commission's most recent affirmation and explanations of these wholesale roaming rules in Decision 2018-97<sup>4</sup>. As we demonstrate below, this claim is incorrect for the following reasons:

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<sup>1</sup> See for example TNW's Supplemental Application, paragraph ES-3.

<sup>2</sup> TNW Supplemental Application, paragraphs ES-7 and 66(a) through (d).

<sup>3</sup> Telecom Decision CRTC 2017-56, *Wholesale mobile wireless roaming service tariffs – Final terms and conditions*.

<sup>4</sup> Telecom Decision CRTC 2018-97, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*.

Bell Canada  
Philippe Gauvin  
Floor 19  
160 Elgin Street  
Ottawa, Ontario K2P 2C4

Telephone: (613) 785-6286  
Facsimile: (613) 560-0472  
[bell.regulatory@bell.ca](mailto:bell.regulatory@bell.ca)

- (i) TNW's iPCS model fails the Commission's "incidental" roaming rule;
- (ii) TNW's business model would undermine and contradict the Commission's and the Department of Innovation, Science and Economic Development's (ISED's) objectives of promoting facilities-based competition; and;
- (iii) TNW roaming, if implemented in conjunction with its iPCS technology, would violate the terms of our Commission-approved wholesale roaming tariff.

4. For these reasons, TNW's application should be dismissed in its entirety.

### **1.0 TNW's spectrum licences, network and iPCS technology**

5. Before analyzing TNW's latest arguments, it is helpful to briefly review and update TNW's present status and the Commission's wholesale roaming rules.

6. From TNW's news releases, it appears to directly or indirectly hold the five spectrum licences in Northern British Columbia (BC) and Yukon Territory (YT) shown in the table below. TNW appears to have acquired certain of the spectrum licences previously held by Navigata Communications pursuant to which a company known as Navigata Communications 2009 Inc. was acquired by a company known as Telephone Navigata-Westel Communication Inc., calling itself TNW.<sup>5</sup> TNW appears to have acquired the spectrum licences previously held by RuralCom pursuant to a 7 December 2016 transaction.<sup>6</sup>

<b>Licensee</b>	<b>Expiry Date</b>	<b>Lic. No.</b>	<b>Lic. Type</b>	<b>Area</b>
Navigata Communications Ltd.	March 31, 2019	010286373-002	Non-Auction Wireless Broadband Service /Radiocommunication Service Provider	Prince George, BC
Navigata Communications Ltd.	March 31, 2019	010287041-002	Non-Auction Wireless Broadband Service /Radiocommunication Service Provider	Smithers, BC
Navigata Communications Ltd.	March 31, 2019	010287377-002	Non-Auction Wireless Broadband Service /Radiocommunication Service Provider	Kamloops, BC
RuralCom Corporation	March 31, 2021	010288961-001	RP-019 Cellular/Radiocommunication Service Provider	Inside Passage & Alaska Highway, BC
RuralCom Corporation	March 31, 2021	010288971-001	RP-019 Cellular/Radiocommunication Service Provider	Alaska Highway, Yukon Territory

7. While TNW's news releases suggest that it is now actively providing wireless and other communications services to its customers within its licensed footprint in Northern BC and YT, information appearing on TNW's own website casts significant doubt on these claims. For example, a user visiting the TNW website that clicks on a link entitled "the plan", who then selects TNW's "plans" and then clicks "sign up"<sup>7</sup> cannot enrol in or purchase any TNW service plans. Instead, the user is directed to the following message:

<sup>5</sup> See: 4 August 2014 news release: <https://www.newswire.ca/news-releases/telephone-navigata-westel-communication-inc-announces--completion-of-current-acquisition-and-integration-plan-and-the-appointment-of-3-new-executives-sandeep-panesar-appointed-chief-executive-officer-515200361.html>.

<sup>6</sup> See: 27 February 2017 news release: <https://www.newswire.ca/news-releases/ruralcom-corporation-changes-name-to-tnw-wireless-service-is-now-operational-in-northern-british-columbia-and-yukon-614880993.html>.

<sup>7</sup> See: <http://wireless.tnwcop.com/sign-up/>.

TNW Mobile will launch this year in an invitation only public beta in which you the consumer can help us test and design the service moving forward. A maximum of 5,000 invites will be sent out across North America with TNW Mobile SIMs. Sign Up below for news and information about the public beta and the TNW Mobile launch and be one of the first to receive a free TNW Mobile SIM.

8. This statement, which appears to be unchanged from the one appearing in August 2017, on or around the time we provided our Answer to TNW's application, confirms that TNW is still not yet operating a wireless network within its licensed footprint and, moreover, that it will not be in a position to do so for some time, at least until it completes its self-described "beta" test.

9. Further doubt regarding TNW's claims to have an operational home network arise from a search of a widely known Canadian website listing the locations of cellphone towers or sites on which Wireless Service Providers (WSPs) operate wireless equipment, most recently updated to 2 April 2018.<sup>8</sup> This website shows no tower attachments on any cellular towers or sites for any of: (i) TNW, (ii) RuralCom or (iii) Navigata. The Commission will no doubt wish to satisfy itself regarding the accuracy of TNW's claims about the operational status of its home network. Among other things, the extent to which TNW has or has not operationalized spectrum in its licensed territories calls into question the extent to which it is compliant with the relevant ISED conditions of licence.<sup>9</sup> We return to this issue in our discussion of TNW's ineligibility to qualify for roaming under our tariff, discussed in section 4.1 below.

10. For present purposes we note the serious consequences which TNW's failure to have operationalized its home network would have in terms of its ISED spectrum licence compliance. These ISED COLs emphasize the need for TNW to be offering its wireless services within its home licensed areas. Specifically, the conditions indicate that, by 13 February 2017, the licensee was to have provided to ISED with:

- a. confirmation of the type of services, including the required services, being offered to customers in the licence area;
- b. details of the retail/distribution network and the devices that are offered to customers to provide the required services;
- c. details of how potential customers and subscribers access required services in the licence area; and
- d. detailed coverage maps of each installed antenna site showing the contours within which the devices provided to customers can connect in order to receive fully operational voice services within the licensee's network.<sup>10</sup>

<sup>8</sup> See: [https://www.ertyu.org/steven\\_nikkel/cancellsites.html](https://www.ertyu.org/steven_nikkel/cancellsites.html).

<sup>9</sup> See, for example: RuralCom Corporation Spectrum Licences issued under RP-019 (Updated February 2017), online at: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11018.html>.

COL#13, dealing with implementation of spectrum usage requires, amongst other things, that RuralCom comply with the following milestones:

By 13 January 2017: file a business plan with ISED;

By 13 February 2017: report to ISED confirming it provides service to at least 50% of the population in its licensed area(s); and tests its networks;

By 24 March 2017: confirm it has paid its license fees; and

On an ongoing basis: that it continues to meet its minimum coverage requirements through out the licensed term.

<sup>10</sup> <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11018.html>.

11. The emphasis in these conditions on TNW actually providing services within its licensed areas is a clear indication that ISED's purpose is to promote facilities-based services, not to have the licences used as an artifice through which a licensee could attempt to sell services in other markets, which is clearly the intent behind TNW's iPCS technology and this application.

12. The key issue raised by TNW thus relates to its iPCS technology and whether use of it to sell TNW service nationally to TNW's out-of-footprint customers would, when augmented with our tariff wholesale GSM roaming service, comply with the Decision 2017-56 roaming rules as these have been confirmed and explained in Decision 2018-97. We submit that iPCS technology so deployed would directly contradict these Commission roaming rules.

13. TNW concedes it does not have the "critical mass" to develop a regional infrastructure.<sup>11</sup> Instead, or in addition to offering service within its Northern BC and YT footprint, it hopes to retail its wireless service to customers outside of its licensed areas to generate revenues to further fund its investments. To do this, TNW proposes to rely on its iPCS technology.

14. That technology creates two connectivity scenarios for TNW's out-of-footprint end-user customers: Scenario One, in which TNW subscribers obtain their wireless network access through public Wi-Fi (e.g., in a downtown Toronto Starbucks coffee shop) and Scenario Two, by which these end-users would obtain wireless network access via roaming on our (or perhaps Telus') host network.

15. As explained in its 3 July 2017 Application<sup>12</sup>, in Scenario One, a TNW customer in the downtown Toronto Starbucks obtains network access via the available public Wi-Fi provided by Starbucks. This traffic is backhauled to a node located somewhere in TNW's home Northern BC/YT network. In Scenario Two, a TNW end-user is roaming via TNW's use of a wholesale roaming tariff. TNW says that once the Scenario Two user is within range of a public Wi-Fi network, their phone de-registers from our host network and shifts to public Wi-Fi access, whereupon that traffic is backhauled to a location within TNW's home network.

## **2.0 Summary of the Commission's Decision 2017-56 Roaming Determinations**

16. In Decision 2017-56, the Commission ruled "wholesale roaming provides access to the incumbents' wireless networks on an "incidental basis."" The Commission also determined that "It would be inconsistent with the wholesale wireless framework to permit mandated wholesale roaming to be used as a means to obtain permanent access to the incumbents' networks."<sup>13</sup>

17. In considering the extent to which end-user connectivity obtained via roaming is or is not "incidental" compared with the network coverage provided by a home network provider when its users are within range of that home network, the Commission considered whether or not access obtained by end-users via Wi-Fi should be considered part of the definition of "home network". The Commission concluded<sup>14</sup> that public Wi-Fi facilities are not owned or operated by WSPs and there are not necessarily any contractual or other arrangements between public Wi-Fi providers and WSPs to assure a WSP's end-users of Wi-Fi availability, quality or reliability. As a result, the Commission, amongst other things, confirmed:

- "mandated wholesale roaming provides incidental, and not permanent access to the incumbents' networks; and

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<sup>11</sup> TNW Supplemental Application, paragraph 51.

<sup>12</sup> TNW Application, paragraph 54.

<sup>13</sup> Decision 2017-56 paragraphs 25 and 26.

<sup>14</sup> Decision 2017-56, paragraphs 27 and 28.

- public Wi-Fi does not form part of a wireless carrier's home network for the purpose of establishing what constitutes incidental use of the visited network pursuant to the relevant wholesale roaming tariff;<sup>15</sup>

18. The Commission went on to identify a number of indicators it intends to consider when resolving future disputes, such as this complaint, over whether a wholesale roaming customer is misusing or abusing the "incidental access" limit on wholesale roaming, including the following:

- it has deliberately issued phone numbers from exchanges outside its home network footprint to its end-users;
- it has sold or marketed its services outside its home network footprint;
- it has sold or marketed its services in a manner that would result in its end-users gaining permanent access to the incumbent's network;
- it has provided its end-users with a device that has for its sole or predominant purpose permitting them to gain permanent access to the incumbent's network; and
- it has otherwise failed to take commercially reasonable steps to limit roaming on the incumbent's network by its end-users to incidental levels that are within the scope of the service. In considering this factor, the Commission may take into account evidence of broad traffic patterns and network use trends concerning a significant proportion of wholesale roaming customer or MVNO end-users.

19. The key Commission takeaways from Decision 2016-56 can thus be summarized as follows:

- In-footprint, network access provided by a WSP to its end-user customer must always exceed the network access provided to end-users by way of roaming (i.e., to ensure that roaming is always "incidental" to home network access); and
- End-user access obtained, in whole or in part, via a public Wi-Fi network does not count toward in-territory home network access for the purposes of determining the issue of "incidental use".

### **3.0 The dependence of TNW's out-of-footprint iPCS traffic upon public Wi-Fi access means TNW will always fail the "incidental roaming" rule**

20. After fully considering the Governor in Council's request to reconsider its Decision 2017-56 rules, including broadening the definition of home network to include other forms of connectivity, such as Wi-Fi, the Commission declined to make any changes to the roaming rules in Decision 2017-56, including expressly declining to broaden the definition of a home network. The Commission made this clear in Decision 2018-97 as follows:

53. The purpose of defining "home network" for wholesale roaming is to identify when an end-user is within a wholesale roaming customer's own network footprint versus when the end-user is incidentally roaming on another carrier's network.
54. If public Wi-Fi facilities, which are not owned or operated by wireless service providers and require no infrastructure investment, were to be included in the definition of "home network," there would be no reliable or practical way of distinguishing between a service provider's home network and all other network equipment connected to the Internet.

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<sup>15</sup> Decision 2017-56, paragraph 31.

55. As such, if wholesale roaming were made available to a company that did not own or operate its own network (i.e. a Wi-Fi-first service provider), that company's customers would not be roaming, as that term has always been understood within the industry and the Commission's framework up to this point. Instead, the company would have wholesale access to a national wireless carrier's network on a permanent basis.
56. The Commission has held multiple public proceedings, in which significant time and energy have been invested, with a view to establishing the rates, terms, and conditions associated with mandated wholesale roaming. Providing certainty to wireless carriers is essential to their investment decisions and, in the case of competitors, solidifying their competitive positions. If the Commission were to alter the meaning of roaming in Canada by broadening the definition of "home network" to include Wi-Fi access, doing so would introduce regulatory uncertainty into the market.
57. From a regulatory perspective, there should be a clear line drawn between incidental access to the national wireless carriers' networks (wholesale roaming) and permanent access to the national wireless carriers' networks (resale, or MVNO access). These two types of network access serve different purposes. Wholesale roaming facilitates wireless carriers' entry into and competition in the market, while wholesale MVNO access facilitates service-based competition. The Commission intentionally made this distinction in the wholesale wireless framework and expressly chose not to mandate the latter service, given its concerns that it could negatively impact investment, particularly from wireless competitors and outside urban core areas.
58. For all of these reasons, the Commission maintains the view that public Wi-Fi should not form part of a wireless carrier's home network for the purpose of establishing what constitutes incidental use of the visited network pursuant to the relevant wholesale roaming tariff. [Emphasis added]

21. TNW argues that connectivity to its home network, which its out-of-footprint customers would obtain when connected to public Wi-Fi when backhauled to its home network via iPCS technology, is not roaming.<sup>16</sup> But this misses the point. The connectivity which TNW's users obtain via the combination of public Wi-Fi and iPCS cannot be considered part of TNW's home network because, in the parlance of Decision 2018-97 paragraph 54, these users are never physically "within" TNW's home footprint.

22. Moreover, TNW has conceded the dependency of its iPCS technology on public Wi-Fi access with the following admission: "While there is a Wi-Fi component to iPCS, all iPCS calls are transit [sic] through and are completed within TNW's facilities-based wireless network."<sup>17</sup> In its July 2017 Application, TNW acknowledged that its iPCS technology is "not a technology that happens to be compliant with current telecommunications regulations."<sup>18</sup> If iPCS was, by TNW's own admission, non-compliant with the Decision 2017-56 rules in August 2017, and neither the iPCS model nor the regulatory rules have changed since then, then TNW's iPCS public Wi-Fi based model cannot now suddenly be compliant.

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<sup>16</sup> See TNW Supplemental Application, paragraph 33.

<sup>17</sup> Ibid, paragraph 22.

<sup>18</sup> TNW Application, paragraph 47.

23. Based on the above, and because the Commission, in Decision 2018-97, specifically declined to amend or broaden the definition of a home network to include access obtained via public Wi-Fi, TNW's iPCS-based model continues to be non-compliant with the Commission's wholesale roaming rules for the following reasons:

- (i) Out-of-footprint TNW end-users dependent upon iPCS and traffic backhaul would never obtain their access connectivity within TNW's home network;
- (ii) As a result, their "within home" network connectivity will always be zero;
- (iii) As a result, their roaming usage, if any, would always be more than "incidental"; and
- (iv) Indeed, these users would be engaged in permanent roaming virtually 100% of the time.

24. This non-compliant status of TNW's iPCS proposal is reinforced through the application of the Commission's indicators of non-compliant roaming from Decision 2017-56 (at paragraph 78) and the fact that TNW's national iPCS offering would be off-side all five of them. For example, TNW would be:

- deliberately issuing phone numbers to national end users from exchanges outside TNW's home northern BC and Yukon network footprint;
- selling or marketing its services outside its home footprint;
- selling or marketing its services in a manner that would result in its end-users gaining permanent access to Bell's (or another incumbent national wireless provider's) network;
- providing end users with devices with either a sole or predominant purpose of enabling them to gain permanent access to Bell's network (or another national wireless provider's network); and
- failing to take steps to limit roaming on our network to incidental levels.

25. A national TNW service offering predicated on the iPCS technology would similarly run afoul of ISED's Conditions of Licence for Mandatory Roaming.<sup>19</sup> Roaming condition of licence number two, bullet three, clearly states: "The roaming which must be offered in accordance with this licence condition is defined by the following characteristics: Roaming as provided for in this condition does not include resale."<sup>20</sup>

26. For all of these reasons, TNW's request that its iPCS offering should be declared compliant with Decision 2017-56 roaming framework should be denied.

#### **4.0 TNW's iPCS national offering would undermine rather than support facilities-based competition**

27. TNW's second claim is that its iPCS technology would align with the Commission's and ISED's facilities-based competition policies. On closer analysis, it would not.

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<sup>19</sup> See: Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements, CPC-2-017, Issue 2 March 2013, Part B2, online at: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09081.html>.

<sup>20</sup> Ibid, Roaming Condition of Licence 2, bullet 3.

28. TNW has concluded that its business model requires a national service offering to be financially viable.<sup>21</sup> TNW claims that its request that iPCS technology be declared compliant with Decision 2017-56 will "in no way impact the level of investment by other wireless carriers as the financial impact to other carriers of granting the relief would be negligible."<sup>22</sup> It offers no analysis to support this claim.

29. If TNW, with five spectrum licences located in rural and remote areas of Canada, consisting of first-come-first-served non-auctioned spectrum, is permitted to utilize its iPCS technology to effectively resell the networks of its roaming partners nationally, nothing would prevent an unlimited number of similarly situated providers from replicating this model and providing their end-users with permanent roaming on the host networks of their roaming suppliers.

30. This would mean that new subsequent entrants would require as little as one spectrum licence in a remote area of Canada, and conceivably only one or a handful of towers or sites in that licence territory to gain access to the entire country by backhauling public Wi-Fi traffic to their licence area.

31. The fact that such new entrants would own at least some of their facilities would not materially distinguish them from an MVNO. Yet the Commission expressly declined to mandate MVNO access as part of its wholesale roaming framework in TRP 2015-177 and repeatedly thereafter because it acknowledged that doing so would "significantly undermine investments by new entrants and others, particularly outside urban core areas" because they could rely on this access instead of investing in their own mobile infrastructure.<sup>23</sup>

32. Further evidence that TNW's iPCS model runs directly contrary to the Commission's and ISED's facilities-based competition policy can be seen from the fact that virtually every national, regional and new entrant wireless carrier has opposed this application at every procedural stage.

33. For all of these reasons, TNW's assertions that its iPCS model promotes facilities-based competition and that the impact of its model to other new entrant carriers would be "negligible" is incorrect and should be dismissed.

#### **4.1 TNW's request for roaming may be contrary to the terms of our National Wireless Roaming Service Tariff**

34. The terms and conditions of our Wholesale roaming tariff<sup>24</sup> were approved on a final basis on 6 December 2017 and the rates received final approval on 22 March 2018. The approval of our tariff was thus the culmination of a regulatory process that began with the issuance of TRP 2015-177 in May 2015 and lasted more than 34 months.

35. TNW's application and supplemental application request, amongst other things, that the Commission issue an order directing us to provide TNW with a roaming agreement in accordance with our tariff.<sup>25</sup> However, doing so would very likely contravene our roaming tariff.

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<sup>21</sup> See for example: TNW Application, paragraph 7.

<sup>22</sup> TNW Supplemental Application, paragraph ES-15.

<sup>23</sup> Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraphs 121 and 122.

<sup>24</sup> See: Bell Mobility Access Services Tariff For Interconnection with Carriers and other Service Providers, CRTC Tariff 15011, Item 100 – National Wireless Roaming Service, available online at: <http://www.bce.ca/Tariffs/bellmobility/100.pdf?version=1524692910642>.

<sup>25</sup> TNW Supplemental Application, paragraph ES-7(a).

36. In this regard, we note the following definition of the roaming service, set out in section 1(a)(23) of our tariff:

(23) "Roaming" means the provision of the GSM-based wireless network functionalities, as expressly contemplated under this tariff item. For greater certainty, the wholesale roaming services provided under this tariff item and prescribed by the CRTC enable retail End-users of a wireless carrier (i.e., the home network carrier, hereunder the Wholesale Roaming Customer) to automatically access voice, text, and data services by using a visited wireless carrier's network (also referred to as "the host network", hereunder the Company Available PMN), including the RAN(s), on an incidental basis and not on a permanent basis. "Roaming" under this tariff item shall not include Roaming on Code Division Multiple Access-based (CDMA-based) wireless network functionalities. The Company must provide Roaming on its GSM-based mobile wireless networks to all End-users served by its wholesale Roaming partners, including the End-users of any MVNOs operating on their wholesale Roaming partners' networks. The Wholesale Roaming Customer must ensure that any access to the Company's network on behalf of its reseller or MVNO subscriber occurs on the same basis, and with the same limitations, as set out in this wholesale Roaming tariff<sup>26</sup>.

37. We note, however, through the interlocking definition of "End-user" (Bell Roaming Tariff, section 1(a)(12)), a TNW end-user must be served by TNW's Public Mobile Network (PMN) to fall within the ambit of the tariff definition of an "end-user." In addition, the definition of PMN (Tariff, section 1(a) (22)), amongst other things, expressly excludes any Wi-Fi network.

38. As a result, only those TNW end-users served off of, and present within, the licensed area covered by TNW's home network (i.e., its PMN), if any, would qualify for roaming under the Bell tariff. TNW end-users obtaining access via public Wi-Fi would not.

39. These Commission approved definitions are entirely consistent with the Commission's rulings in TRP 2015-177, Decisions 2017-56, 2017-57<sup>27</sup> and 2018-97 discussed above. Moreover, were we to provide roaming service to TNW in contravention of these tariff provisions, we could well be determined to be acting in contravention of section 25(1) of the *Telecommunications Act*, which prescribes that no carrier may provide a telecom service except in accordance with a tariff filed with and approved by the Commission.

40. This tariff compliance issue reinforces the relevance of the information on TNW's own home page referenced above. In particular, to the extent TNW does not yet operate a home network, which is strongly indicated by information on TNW's own website suggesting none of its retail plans are not yet available for purchase, it would have no end-users qualified to receive our tariff roaming service.

41. The foregoing is thus a further basis upon which to reject TNW's application.

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<sup>26</sup> Bell Mobility, Access Services Tariff – CRTC Tariff 15011, Item 100 – National Wireless Roaming Service, page 14.

<sup>27</sup> Telecom Decision CRTC 2017-56, *Wholesale mobile wireless roaming service tariffs – Final terms and conditions*.

42. For all of the foregoing reasons, we respectfully request that TNW's Application be dismissed in its entirety.

Yours truly,

*[ Original signed by P. Gauvin ]*

**Philippe Gauvin**  
Assistant General Counsel

c.c.: Michel Murray, CRTC  
Danny Moreau, CRTC  
TNW  
Distribution List as per CRTC Letter dated 23 March 2018

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