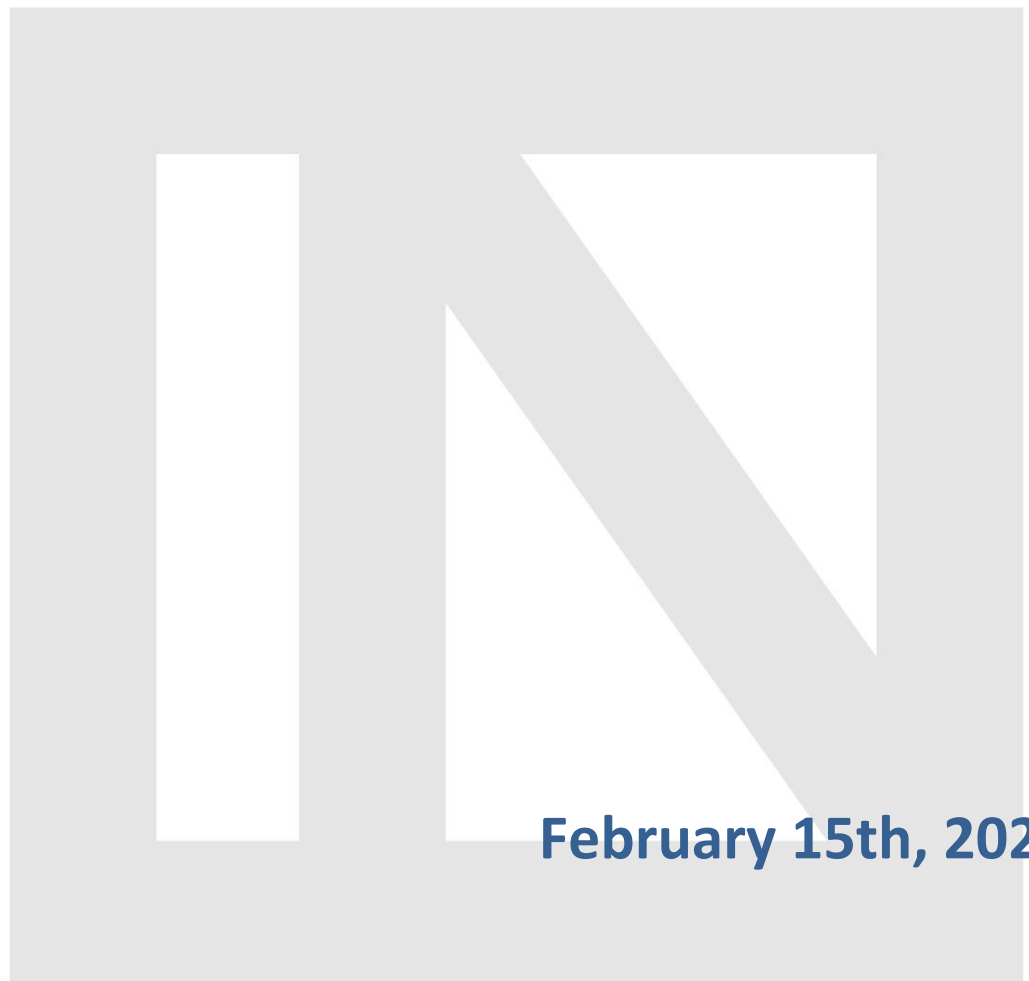


TECHNATION^{CA}

**Submission: Consultation on a Policy and Licensing
Framework for Spectrum
in the 3800 MHz Band (SLPB-006-21)**



February 15th, 2022

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TECHNATION Submission: ISED Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band

About Us

TECHNATION welcomes the opportunity to provide its comments on the Innovation, Science and Economic Development Canada (ISED) *Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band*. We would welcome a follow-up discussion with department officials to discuss this Submission in more detail.

TECHNATION plays a central role as the industry – government nexus for technology prosperity in Canada. Our goal is to unite technology, government, and community for Canada's future, by leading as a catalyst and conduit for the future of technology and innovation in Canada.

As a prominent advocate for the expansion of Canada's innovation capacity, TECHNATION encourages technology adoption to capitalize on productivity and performance opportunities across all sectors. A member-driven not-for-profit, TECHNATION has served as the authoritative national voice of the \$230 billion ICT industry for over 60 years. More than 44,000 Canadian ICT firms create and supply goods and services that contribute to a more productive, competitive, and innovative society. The ICT sector generates more than 671,100 jobs and invests \$8.0 billion annually in R&D, more than any other private sector performer.

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Introduction

The forthcoming auction of the 3800MHz band represents a critical next step in ensuring that Canada retains its position as a world leader in wireless networks. While 2021's 3500 MHz auction laid the foundation for Canada's 5G future, the country is currently slipping from its leadership position in wireless. The quantities of spectrum available in the 3500MHz auction, particularly in the open auction, was amongst the lowest in the Organisation for Economic Co-operation and Development (OECD), and the structure of the auction resulted in prices far in excess of those seen in comparable jurisdictions, largely as a result of the artificial scarcity created by set-asides. At the same time, the auction did too little to ward against fallow spectrum and speculation, focusing heavily on the 4th carrier policy by imposing asymmetric conditions intended to guarantee smaller operators purchase spectrum regardless of whether this outcome results in worse outcomes for rural Canadians. These conditions will not go far enough to ensure all Canadians can benefit from forthcoming technological changes.

The 3800MHz auction represents the second major element of Canada's mid-band plan and presents an important opportunity to alleviate some of the least desirable outcomes of the 3500MHz auction.

General Principles

At a high level, TECHNATION would encourage ISED to focus on the following principles:

1. The top priority for the spectrum auction should be to support industry investment in affordable, high quality wireless services. It is vital that the government's primary goal is to design a mechanism which is most likely to ensure spectrum is awarded to operators who will use it to build and deploy wireless networks, balancing the need for both price and infrastructure-based competition.
2. While auctions are used in virtually all advanced economies, they fail to efficiently award spectrum when poorly designed. It is not enough to simply have an auction mechanism in place as an element of the awards process. Significant market engineering through pro-competitive measures undermines the transparency, fairness, and efficiency promised by the use of auctions. There is little material difference between a so-called "beauty contest" to award spectrum and an auction which is structured in such a way that it guarantees a particular market outcome.
3. Auctions that are designed to maximize state revenues risk serious harm to consumers, but auctions which are designed in such a way that revenues are inflated present precisely the same risks. Inflated spectrum prices undeniably crowd out network investment and increase the cost of production for all wireless carriers. Auctions must be designed to maximize economic and social returns by ensuring that spectrum is purchased by operators that intend to build networks and that they are then in the best position to do so. It is not enough that no spectrum remains unsold; auctions should use fair mechanisms, free from artificial scarcity whether caused intentionally by auctioning too few blocks of spectrum or the use of extensive set-asides.

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Pro-Competitive Measures

- **The Canadian wireless market is highly competitive. Canadian citizens receive world-leading services and benefit from intense competition both on infrastructure and price.** All Canadian provinces have at least four wireless carriers and, according to the GSMA¹, Canada's spectrum HHI index is the 4th lowest of any market. It is, therefore, unnecessary to impose any pro-competitive measures in the 3800Mhz auction.
- **While the Canadian wireless market is already competitive, if ISED determines that pro-competitive measures are necessary in the 3800Mhz auction, TECHNATION recommends that Canada follow its peers by implementing spectrum caps and ending set-asides.** Canada is an international outlier in its use of set-asides. No comparable jurisdiction uses set-asides to support established regional carriers and set-asides demonstrably drive-up prices and enable speculation. Such policies have extensive efficiency costs, distorting both auction outcomes and creating perverse incentives for some operators following the auction. Furthermore, there are alternatives in the mid-band which ensure ISED's goal of 4 players in each region can be achieved without such significant negative impacts. Specifically, a sizable cap can be implemented which ensures at least 4 players in each region. In this context, the use of a set-aside rather than a cap of at least 100Mhz would require significant justification.
- **ISED must bear in mind the CRTC MVNO decision.** ISED must ensure that any pro-competitive measures do not distort the pattern of demand in a manner allowing the acquisition of small amounts of spectrum as a 'ticket' to MVNO access without realistic potential or adequate incentive to invest in infrastructure. This potential problem requires ISED to take a balanced approach to designing pro-competitive measures and deployment requirements to avoid undermining the important balance struck in the CRTC's MVNO decision. Such fragmentation may also operate as a barrier to contiguity across the 3500Mhz and 3800Mhz bands and must be avoided.

Contiguity

- **TECHNATION supports policies intended to ensure the maximum practical level of contiguity across the mid-band.** Given the importance of contiguity for the efficiency of network provision and the two-step nature of the mid-band auctions in Canada, TECHNATION recommends that ISED adopt policies to facilitate contiguous distribution of the mid-band. ISED should adopt such policies both in the auction proper and subsequently, ensuring that ISED policy does not create unnecessary friction in the process of spectrum swaps but in fact facilitates such activities. All proposed mechanisms for establishing contiguity should be clear prior to the auction to allow operators to bid with certainty. To the extent that auto-contiguity

¹ GSMA, 5G and economic growth: An assessment of the GDP impacts in Canada [2020] p33, Available at: <https://data.gsmaintelligence.com/api-web/v2/research-file-download?id=54165916&file=051120-5G-in-Canada.pdf> 15/02/2022

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between the 3500Mhz and 3800Mhz bands can be provided without harming competition, TECHNATION would support it as a means of simplifying the allocation phase and the post-auction establishment of a defragmented mid-band.

Deployment Requirements

- **TECHNATION recommends that ISED consider if the asymmetric deployment requirements considered in the consultation adequately balance incentives for both large and small operators and improve outcomes for rural Canadians.** TECHNATION would like to highlight that Canada is an outlier in its use of asymmetric deployment requirements in auctioning the mid-band. Only Germany has adopted a similar framework, and the equivalent of Canada's 'general' conditions apply not outside of existing footprints, but exclusively to new entrants. While it is necessary not to impose conditions which are so stringent as to be prejudicial to small operators, this does not mean it is good practice to impose conditions that fail to incentivize wireless network deployment beyond population centres. It is unclear that the correct balance is currently being struck between conditions that are so onerous they undermine competition and avoiding excessive amounts of spectrum remaining fallow for long periods, or to prevent speculation. This is particularly the case in the context of a set-aside, and in the context of the CRTC MVNO decision. **TECHNATION would also like to highlight that it is unclear what the long-term impacts of the asymmetric conditions under consideration are on operators who build networks widely.** Such mechanisms mean marginal infrastructure investment decisions take place in the shadow of the potential for overly burdensome deployment requirements at future auctions targeted at operators that invest heavily in infrastructure. **Current policy places rural Canadians at a potential disadvantage on both counts, and the cost-benefit analysis must be made with care.**
- **TECHNATION recommends that deployment requirements should include financial incentives rather than penalties to encourage investment in unserved or underserved areas.** ISED's deployment requirements over existing network footprints are, from an international perspective, relatively onerous, yet certain areas of Canada will remain unserved or underserved without deployment requirements that encourage wider spectrum deployment. In these circumstances, it would be more appropriate to establish conditions backed by financial incentive rather than threat of penalty.
- **It is improper to impose more onerous deployment requirements on mid-band spectrum than low-band spectrum.** Wider deployment requirements applied to low-frequency bands are far less onerous than when applied to the mid-band. There is a clear risk that imposing stricter requirements for the mid-band will distort sensible deployment strategies, and a greater risk that such conditions will be too onerous on some operators.

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Conclusion

- Spectrum policy should be used to drive network investment, innovation, and global competitiveness, whereas recent Canadian policy risks crowding out infrastructure investment, slowing innovation, and putting all Canadian companies at a competitive disadvantage
- Given the Canadian wireless market is already competitive pro-competitive measures in the 3800Mhz auction would not only be unnecessary but would be detrimental to Canada's competitiveness.
- Nonetheless, if ISED determines that further pro-competitive measures are necessary, TECHNATION recommends that Canada follow its peers, implementing spectrum caps of at least 100 MHz per operator.
- The contiguity of the mid-band should be a priority for ISED guaranteeing, as it does, the efficient deployment of spectrum in Canada despite the separation of the mid-band into two auctions and the use of set-asides in the 3500Mhz auction.
- To encourage wider infrastructure investment, TECHNATION recommends that ISED consider adopting financial incentives to deploy in rural, remote and Indigenous communities, and areas of strategic economic importance.

TECHNATION is hopeful that this submission will assist ISED and we would welcome the chance to respond to any specific questions that you may have.



Nevin French
Vice-President, Policy
nfrench@technationcanada.ca
www.technationcanada.ca
Cell: 613-240-7378