

Use It or What? Spectrum Policy's Empty Threat

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Abstract

This article explores the development and application of the “use it or lose it” approach in the context of Canadian spectrum policy. The approach threatens to remove spectrum access from service providers who do not meet deployment conditions of licence. Is there ever any substance to “use it or lose it” policies or have they simply become a rhetorical device for regulators and politicians who wish to appear authoritative? Using primary document analysis from government and industry, as well as interviews with regulators, the article compares the pronouncements of reclaiming spectrum with the historical reality of recent spectrum policy. The research shows that this penalty has been repeatedly announced, though it is questionable if it has ever been used. While Canada provides the foundation of the case study, a comparative analysis with other countries that have announced similar positions in their spectrum policy is also included. The findings are of relevance for regulators, industry, and academics studying the political economy of telecommunications.

A December 2021 mandate letter from the Canadian Prime Minister's office to the Minister of Innovation, Science and Industry, François-Philippe Champagne, was forthright in the government's expectations:

Accelerate broadband delivery by implementing a ‘use it or lose it’ approach to require those that have purchased rights to build broadband to meet broadband access milestones or risk losing their spectrum rights (Canada, 2021a).

This letter, issued by the Prime Minister to cabinet members at the start of a political term, affirmed the Liberal Party's 2021 election pledge to enact a “use it or lose it” spectrum policy if elected (Daley, 2021). Justin Trudeau's was not the only voice in Ottawa that year expressing strong opinions in the usually quiet bureaucratic zone. Indeed, Trudeau was also echoing a recommendation that had appeared in the federal Conservative Party's 2021 election platform: “Speed up the spectrum auction process to get more spectrum into use and apply ‘use it or lose it’ provisions to ensure that spectrum (particularly in rural areas) is actually developed” (Conservative Party of Canada, 2021).

It is rare to find such unanimity among the two major Canadian federal parties. Neither the Liberal nor Conservative platforms during the previous federal elections of 2019 or 2015 made any reference to this stronger approach to wireless governance. By 2021, though, spectrum policy, in particular the “use it or lose it” refrain, was clearly seen as a political winner in 2021.

Indeed, the popularity of the “use it or lose it” refrain extended beyond the confines of Canada’s capital. By 2022, the province of Alberta joined this policy chorus, promising in the provincial broadband strategy to advocate for “Strengthening and enforcing a ‘use it or lose it’ framework for spectrum licensing that ensures spectrum is more readily available to providers who can demonstrate intent to provide services to the region” (Government of Alberta, 2022). The government had to explicitly state their role as advocates, as provincial governments have no jurisdiction over spectrum allocation in Canada. This political fact did not dissuade the Alberta government from including this clearly fashionable policy in their official plan. Late in 2022, the opposition Alberta New Democratic Party also recognized the potential of this policy and called for the federal government to implement “use it or lose it” spectrum rules before approving the merger of two of Canada’s largest telecom companies, Shaw and Rogers (Labine, 2022).

On the surface, this policy, which seems to capture the Canadian political zeitgeist of the 2020s, sounds like an emphatic assertion of government sovereignty over the national airwaves and a warning to the wireless industry that the hoarding of unused licensed spectrum would be met with clear and strict penalties. However, the history of this approach paints a much cloudier picture. “Use it or lose it” is a memorable rhyme of a policy that has shown little substance in terms of its application, despite appearing in Canadian policy documents for more than a decade. As a regulatory threat, it has proven an extremely idle one.

Since it is rarely if ever deployed as a regulation, “use it or lose it” remains largely a rhetorical maxim used both by politicians and regulators. The Oxford Dictionary of Philosophy defines a maxim as “Generally, any simple and memorable rule or guide for living: neither a borrower nor a lender be, etc.” They have “generally been associated with a simplistic ‘folksy’ or ‘copy-book’ approach to morality” (Blackburn, 2016). The phrase takes the highly complex issue of spectrum deployment conditions and reduces it to a soundbite that can, at least on the surface, be understood by all. The reasoning behind the phrase seems self-evident since no one supports waste.

Let us now consider the development and application of this regulatory approach in the context of Canadian spectrum policy. The research shows this hypothetical penalty has been repeatedly announced and promoted by Canadian governments, regulators, public advocates, and even industry, though it is highly questionable if it has ever been used. Is there ever any substance to “use it or lose it” policies or have they simply become a rhetorical device for regulators and politicians who wish to appear authoritative? Has any wireless service provider actually “lost it”? Does this assertion of the regulator as a watchdog have any teeth at all?

Clear answers to these straightforward questions are elusive. Governments and regulators worldwide have been far more generous with deploying the phrase than actually providing evidence of an active and engaged policy. The methodology for my investigation combines the exploration of primary documents, including policy announcements from the government and regulators, speeches, and official reports, with interview responses from industry experts and government spectrum regulator representatives. Industry submissions to Canada’s national media regulator, the Canadian Radio-Television and Telecommunications Commission (CRTC) and to Innovation, Science and Economic Development Canada (ISED, formerly Industry Canada) are analyzed. The latter has oversight over the nation’s radio frequencies. The article thus explores the differences of

opinion on this subject between Canada's wireless service providers. While the focus is primarily Canadian, there is some comparative analysis with other countries that have announced similar positions in their spectrum policy. Discussion then moves to the new access licensing approach tabled by the Canadian regulator in 2021 as a potentially more meaningful successor to the "use it or lose it" policy.

The 1991 Broadcasting Act specifies "radio frequencies that are public property" (Canada, 1991), and the International Telecommunications Union (ITU) calls spectrum "A scarce but renewable public resource" (ITU, 2015). This attests to its inherently public nature beyond the rhetorical strategies of politicians. This seemingly simple phrase, "use it or lose it", contains questions about whether the acquisition of spectrum rights is regarded primarily for its use value (i.e., essential for the provision of services to the public) or exchange value (maintaining exclusive rights in the hope demand and value increases). Precisely what could be done with spectrum that is reappropriated by regulators for lack of use remains speculative since the policy has few concrete examples. One option would be to make such spectrum available to smaller providers who are unable to participate in auctions. Previous work on wireless markets in Canada has demonstrated that a major barrier to smaller wireless service providers in Canada remains access to quality spectrum (Taylor, 2018). Whether this policy is actually applicable or is simply an empty gesture, has implications for the political economy of telecommunications. The specter of losing spectrum is a grave concern for internet service providers (ISPs) who seek to expand their licence holdings to accommodate growing data demands. On the regulatory front, governments face increasing pressure to demonstrate sound stewardship of the public airwaves. As spectrum demands expand in the 5G era, the repercussions of this research extend to the private sector and national communication regulators.

A limited literature

Overall, "use it or lose it" is a policy that has wide surface acceptance among regulators but there is little analysis of its actual deployment in either government documents or academic studies.

For communication scholars, spectrum policy studies fits clearly within the theoretical tradition of institutional political economy (Babe, 1995; Mosco, 2009; Veblen, 1994; Melody and Mansell, 1983). Canada's state-bureaucratic structure has been recognized as the legal custodian of the nation's airwaves ever since broadcasting was deemed a federal jurisdiction in 1932. The regulation of Canadian wireless spectrum is the responsibility of ISED under the auspices of the Telecommunications Act (Canada, 1993) and Radiocommunication Act (Canada, 1985). ISED is responsible for developing and implementing policies related to the efficient and effective use of the spectrum. This includes licensing and allocating of spectrum to various users, such as wireless carriers, broadcasters, and government agencies. ISED regularly holds online consultations on technical, policy, and licensing conditions in advance of spectrum auctions.

A political economy analysis of Canadian spectrum policy must incorporate the institutional approach which considers that organizational structures and bureaucratic activity are potent forces in the production and distribution of goods and services (Mosco, 2009). Certainly, the forces of capital are the primary drivers in contemporary spectrum development worldwide, especially since the liberalization movement of the 1990s (Taylor, 2013). However, as David Harvey noted: "Some attention must be paid to contextual conditions and institutional arrangements, since these vary greatly from Singapore to Mexico, Mozambique, Sweden, and Britain, and the ease of conversion

to neoliberalism has varied as a consequence” (Harvey, 2005: 116). In Canada, as in other nations, the path to either concentrated wireless dominance among a select few companies or, conversely, a distribution of the public airwaves that prioritizes citizen needs, runs through the federal bureaucracy.

The actual spectrum policy mechanisms within Canadian federal institutions do not lend themselves to easy analysis. While the CRTC, which addresses issues such as consumer pricing, has an obligation under its mandate to hold public consultations on key decisions, the same is not true for ISED (Shepherd et al., 2014). Aside from online consultations, there is no public forum in Canada for ISED’s spectrum policy decisions, and there are intense lobbying efforts behind closed doors. According to former Conservative Industry critic MP Michelle Rempel, “This [Canadian wireless] is the most heavily lobbied industry in the country” (Lee-Murphy, 2019). This statement was supported by a 2023 report revealing Innovation Minister François-Philippe Champagne (in charge of ISED) as the most-lobbied minister in cabinet in 2022 (Wire Report, 2023). These lobbying efforts are tilted in favor of the big incumbent operators. Between August 15, 2019, and June 1, 2021, large telecom providers (Bell, Rogers, Telus, Shaw, Cogeco, and Quebecor) held 261 lobbying meetings with ISED, including 24 meetings with the minister. By comparison, smaller telecom providers (Teksavy, Iristel, and the Competitive Network Operators of Canada) held only 18 such meetings during the same period (Dobby, 2021).

Those who hold spectrum in Canada, and thus have the most to lose under a “use it or lose it” policy, are a powerful presence in Ottawa. In April 2023, former Liberal Industry Minister Navdeep Bains announced he was joining the executive team at Rogers, the largest company in the very industry he had charged with regulating from 2015 to 2021 (Paglinawan, 2023). Spectrum policy in Canada, as in much of the world, is a complex interplay of powerful industrial and bureaucratic forces where the public is not technically excluded but is clearly secondary to the main power dynamic. This article argues that inaction on the part of institutions able to demand more of wireless service providers has made “use it or lose it” an empty shell of a policy. There has been limited scholarly work on this specific policy subject apart from references to broader deployment issues concerning spectrum management (Calabrese, 2011, 2021; Freyens and Loney, 2011; Joseph, 2018; Kuś and Massaro, 2021; McNally et al., 2018; Taylor et al., 2017). Given the enormous demands on governments worldwide for spectrum allocation, it is important to note what options are available to regulators when the rights sit fallow. Aside from the rhetoric, “use it or lose it” is a sound policy approach in dealing with licensees who do not meet the spectrum deployment conditions needed for communications development.

There was some academic research into “use it or lose it” from 2000 to 2010, with most determining that it did not fit prevailing market-based principles (Bykowsky, Olson and Sharkey, 2010; Cave, 2002). Freyens and Yerokhin (2011) demonstrate the widespread announcements of “use it or lose it” policies across a range of nations, which they saw as a potentially constraining approach (296). However, despite many examples of governments using the phrase, actual enforcement of the policy was never found. It remains a hypothetical punitive measure.

Michael Calabrese deserves much credit for his work on “lose it or share it” at the 2011 Telecommunication Policy Research Conference (Calabrese, 2011). This was later updated in a 2021 report for the New America Foundation (Calabrese, 2021). He saw this as a more plausible policy scenario, which he defined as “A default policy that seeks systematically to open fallow and underutilized frequency bands for opportunistic access on a non-interfering basis” (Calabrese, 2021: 17). Calabrese rejected “use it or lose it” by repeatedly applying the word “draconian”. In my view,

however, that term is far too strong since the policy was so rarely, if ever, applied. Exactly how “draconian”. a measure it is remains largely speculative. Reappropriating spectrum, especially after a successful auction process, remains a potential bureaucratic nightmare that deters regulators from carrying through on these threats. “Use it or lose it” seems to be the “nuclear option” for spectrum management: something so extreme it remained a background policy weapon whose actual deployment was unthinkable for regulators. However, for that analogy to work, the policy would have to act as a deterrent. That has repeatedly not been the case in the Canadian context, especially in rural and remote communities where wireless companies have acquired large swathes of spectrum, often without with deploying service (Joseph, 2018). Clearly, there is little fear of losing it.

A 2012 Canadian report from the Public Interest Advocacy Centre proposed “use it or lose it” while recognizing it was something of a regulatory long shot. In a report they write, “PIAC advocates for the adoption of a ‘use it or lose it’ rule. This rule is key to enforcing competition and efficiency in the post-auction market. While not a customary measure imposed by Industry Canada, the “use it or lose it” rule is essential for the 700 MHz band” (Janigan, 2012, p. 40). The report correctly saw this band, with its strong propagation qualities, as necessary for rural expansion, though the ensuing deployment requirements for the 700 MHz licences have been criticized as inadequate (Taylor, 2021).

Kris Joseph offered one of the few analyses of contemporary Canadian spectrum usage in rural areas (Joseph, 2018). The research, by the then-graduate student at the University of Alberta, is by no means complete; he noted the difficulty in accessing this information. Still, it sheds rare light on the providers in Canada who were not ‘using it’: “With the exception of variations in the 3500 MHz frequency range, findings support small and independent service providers’ accusations that wireless spectrum licences are concentrated in the hands of Canada’s Top 5 providers”. Joseph concluded “usage of spectrum licences is low outside of urban areas” (Joseph, 2018). This study was awarded a national prize by the CRTC.

Perhaps current concerns over spectrum non-use should have been foreseen. When the Spectrum Policy Framework for Canada was revised in 2007, some providers objected to the very notion of deployment conditions. According to the framework “Some incumbent service providers expressed the view that licensing conditions requiring the rollout of radio systems were inappropriate as the Department moves towards a greater reliance on market-based mechanisms in licensing. Consequently, they proposed the deletion of that matter from the proposed Policy Guidelines” (Industry Canada, 2007). Clearly, any policy such as “use it or lose it” was predestined to meet industrial resistance.

The Canadian Context

Canadian telecommunications is a closed shop compared to many international jurisdictions. Foreign ownership of Canadian telecom providers was not allowed until 2012. Then the Government of Canada introduced elements in its annual budget to remove from the *Telecommunications Act* most restrictions on foreign ownership from all but the largest Canadian telecommunications carriers. This amendment permits non-Canadian-owned entities to start up or acquire telecommunications carriers that hold less than a 10% share of the total Canadian telecommunications services revenues, as determined by the CRTC. Given the concentrated nature

of the Canadian market, the exemption applies to smaller Canadian carriers but not the largest three: Bell Canada, Telus Corp and Rogers Communications Inc.

As noted by the Competition Bureau of Canada in 2022, Canadians are subject to a “concentrated wireless services market, where Rogers, Bell and Telus (the Big 3) serve approximately 87% of Canadian subscribers” (Canada, 2022b). These top players in Canadian wireless have fared quite well in recent years. A 2022 report from Carleton University, *Growth and Upheaval in the Network Media Economy*, offers data showing that mobile wireless represents the largest sector of Canada’s media economy, with revenue growing more than five-fold from \$5.4 billion in 2000 to an estimated \$29.3 billion in 2021 (Winseck, 2022: 8). Despite the concentration and financial strength of the mobile market, in 2023 the Competition Tribunal approved a \$26 billion merger of Rogers (Canada’s largest mobile provider) with Shaw (the country’s fourth largest provider), creating even further concentration in the sector.

Within this regulated environment, support for “use it or lose it” comes from a decidedly broad base that does not necessarily fit into a recognizable political, social or economic category. In its consultation over the 700 MHz band launched in 2010, Industry Canada heard from a range of groups who supported “use it or lose it”. This was noted by MTS (Manitoba Telecom Services) Allstream in their 2011 Reply Comments on Gazette Notice SMSE-018-10, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*:

A significant number of parties advocated a so-called “use it or lose it” rule, whereby if spectrum is acquired in the auctions was not deployed within a certain number of years (ranging from three to five years), the licence would be forfeit

- Canadian Association of Community Television Users and Stations
- Canadian Media Guild
- Public Interest Advocacy Centre
- Interdependent Committee on Search and Rescue
- Public Safety Canada
- RCMP
- Governments of
 - Saskatchewan
 - British Columbia
 - Ontario
 - Yukon
- Individuals
 - Gadiant
 - Howley
 - May

Clearly, there was a wide range of voices in 2011, mostly outside industry, calling on the government to use the “big stick” of “use it or lose it” for companies that did not utilize their acquired frequencies. MTS Allstream went on to state, “if the Department is truly committed to achieving rural broadband, then it is prudent and necessary to mandate roll-out commitments” (2011). MTS Allstream was part of Manitoba Telecom Services (now owned by Bell), who had clear knowledge of connectivity issues in rural Canada but were not a major national player. While none of the national “big three” telecom companies (Bell, Rogers, Telus) are mentioned as being supportive in this submission, there was by no means unanimity even among the largest operators.

Major Canadian telecom provider, Telus, also agreed with “use it or lose it”, as stated in their submission to the 700 MHz auction consultation: “In order to ensure that 700 MHz is utilized outside of key urban areas there must be a “use it or lose it” build out requirement in all Tier 3 service areas that Telus suggests should be invoked three years after license issue” (Telus 700 MHz reply comments). Despite some support among regional governments and civil society groups, the general tone the industry was one of fierce opposition. For Quebec-based Quebecor, Telus’ support for “use it or lose it” was “beyond drastic” and a “radical proposal” (Quebecor, 2011).

Provincial telecom provider SaskTel chimed with a more Calabresian advocacy for use it or share it, noting: “Under our ‘use it or share it’ proposal, the operator using the spectrum must be prepared to vacate it within two years of notice being provided by the licensee that it has plans to use the spectrum in the area where it is being shared’. Bell, Canada’s largest media company disagreed with even this watered-down approach replying: “Bell Mobility does not support SaskTel’s recommendation that Industry Canada implement a “use it or share it” condition of licence for spectrum licences”. This strong opposition was echoed by Rogers. The rationale for Telus’ view is unclear but it is reiterated in a 2022 position paper (Telus Inc, 2022).

In the end, Industry Canada stipulated deployment conditions for 700 MHz licence holders that were so weak that they proved relatively easy to accommodate. The 2012 conditions of licence for this key spectrum noted that 700 MHz “licensees will be required to deploy the 700 MHz spectrum to 90% of the population of their existing mobile broadband (HSPA) network footprint within five years and 97% of their HSPA network footprint within seven years” (Industry Canada, 2012) There was no new deployment territory required for this spectrum and no “use it or lose it” requirement, only a vague promise that “RP-019, *Policy for the Provision of Cellular Services by New Parties* (which was an early policy in favor of spectrum sharing) will be reviewed to assess possible changes to improve the process and determine whether the policy should be expanded to apply to other bands.” This was never done.

On the Global Stage

The Canadian situation is by no means unique. Around the world, governments have shown little desire to remove spectrum from licensees once it has been allocated. There is nothing in the international regulations that would limit a regulator’s ability to repossess spectrum. The ITU Digital Regulation Handbook notes “Auctions that have ‘use it or lose it’ rules are sound obligations that can prevent potential hoarding and promote effective use of spectrum” (International Telecommunication Union and the World Bank, 2020: 129).

In Canada, for more than a century, points of comparison for media regulation have been the UK and the United States. In the latter case, the FCC seems inspired to drop the “use it or lose it” hammer in regard to TV stations that were not using the full extent of their allotted frequencies (Drawbaugh, 2006) or for reclaiming poorly utilized public safety spectrum (Davies, 2018). Therefore, demand for spectrum has meant that American regulators are searching for inefficiencies to exploit such as underused television or public safety frequencies; however, examples of reappropriating spectrum from incumbent American wireless ISPs are harder to find.

In the UK, Ofcom has also been facing calls to be more aggressive in its conditions of licence. In their 2019/2020 annual plan, Ofcom noted that the Communications Consumer Panel and Advisory Committee on Older and Disabled People urged the UK regulator to be more innovative in the allocation of spectrum. They had previously encouraged a “use it or lose it” clause (Ofcom,

2019/2020: 70). Likewise, Ofcom's wireless planning for the 2020s heard concerns about rural spectrum usage. In 2021, the Advisory Committee for Scotland said that Ofcom should consider "Use it or Lose it" or "Use it or Share it". They anticipated that,

MNOs will choose not to deploy 5G in rural areas and in such cases it would be more efficient use of the UK's spectrum if local ISPs and businesses (e.g., salmon farms) could make use of this key spectrum when it is not used in local areas (Ofcom, 2021: 50).

In its 2019 policy, *Enabling Wireless Innovation Through Local Licensing*, Ofcom, created a spectrum sharing template that stopped short of incumbents having to forfeit unused spectrum (Ofcom, 2019). Ofcom announced two distinct licensing processes to support spectrum sharing. Shared access licensing allowed access to spectrum previously licensed to users such as defense, the amateur service, satellite earth stations and fixed wireless access. Local access licensing, was more aligned with "use it or share it" and allowed additional users to access spectrum in mobile bands already licensed via auctions in areas where there are no commercial mobile deployments (usually in rural and remote regions). These UK licensing processes were a clear inspiration for the ISED 2021 Access Licensing Framework consultation in Canada, which clearly advocated a sharing approach.

Beyond western countries, "use it or lose it" is still bandied about by spectrum regulators though the impact is debatable. Stephen Song (personal communication, June 8, 2021), a policy advisor for Mozilla Corporation who has done much work in Africa, noted in an interview that, "It would appear that 'use or lose it' is really just a kind of sabre rattling by regulators or ministries such as in South Africa or Nigeria". Song offered case studies of South Africa where local media have noted the national regulator had repeatedly "continued threats that spectrum licence holders would lose their assignment if they don't use it" (Vermeulen, 2012). But, like many jurisdictions, no further action was taken.

Song noted that after years of idle threats, Nigeria's regulator appeared to have taken some action regarding "use it or lose it" in their national 5G consultation. It stated, "Based on the enforcement of Use-it-or-lose-it Policy, two additional slots of 1 X 30 MHz, i.e., 60MHz bandwidth, will be recovered and re-planned in conjunction with other Spectrum bands and licensed for 5G" (Nigerian Communications Commission, 2020: 48). This aggressive stand by the Nigerian regulator proved to be far more an exception than the rule.

Comparative studies on the role of national "use it or lose it" spectrum policy regimes are hard to find; however, an article in the industry news site Policy Tracker in 2015 entitled "Regulators lose it over 'use it or lose it'" noted, "But time and time again, it seems that once a company owns a licence for spectrum, it is very difficult for a regulator to prise it off them" (Youell, 2015). The article reinforces the conclusion that Canada's politically boisterous but regulatory reticent experience is by no means unique on the world stage.

As Stephen Song from Mozilla noted in correspondence: "For the number of times that 'use it or lose it' is mentioned in regulatory handbooks and analysis documents, you would think there would have been some instances".

The Current State of “Use it Or Lose it” in Canada

Canada’s current Spectrum Policy Framework is a timid regulatory document drafted in the shadow of a rare 2006 federal cabinet Policy Directive. Here, the Conservative government emphasized the expectation that market forces would be the guiding principle (Industry Canada, 2006). The framework was very careful not to appear too intrusive in the rapidly growing broadband economy of that era. Following the Directive’s laissez-faire approach, it was clear in its Enabling Guidelines that,

(a) Market forces should be relied upon to the maximum extent feasible.

and ...

(d) Regulatory measures, where required, should be minimally intrusive, efficient and effective. (Industry Canada, 2007)

This Directive was the high-water mark for market-based telecommunications policy in Canada. Removing spectrum access under a “use it or lose it” approach would not fit any definition of a minimally intrusive regulatory decision and would therefore be contrary to the very spirit of the Directive. It remained a central document guiding Canadian telecom policy for 17 years until it was repealed in 2023. Under the Liberal government, a new directive emphasized “competition, affordability, consumer interests and innovation” (Canada, 2023a). The longstanding influence of the 2006 Policy Directive may offer some rationale for why “use it or lose it” has never gone beyond the consultation stage of the Canadian policy process.

Despite the Directive, there is no doubt that “use it or lose it” is permitted under current Canadian legislation. The Radiocommunication Act (5.2.i) is clear, “The Minister may suspend or revoke a radio authorization... where the Minister is satisfied that...(i) the holder has contravened this Act, the regulations or the terms or conditions of the radio authorization” (Canada, 1985).

Politicians have been adamant in publicly declaring that taking back spectrum is exactly what they will do. Back in 2013, Conservative Industry Minister James Moore was cheered in some circles for emphatically stating, “Those that have not used the spectrum will lose it” (LaSalle, 2013). Indeed, the 3500 MHz band to which he was referring is one of the only instances in the last two decades where spectrum was lost by some incumbents. However, this was due to an overall “refarming” or reordering of the 3500 MHz band to introduce mobile services on the frequencies. It was not necessarily a punitive measure against any specific ISP for failing to deploy service. Still, this stands as a rare example where licences were removed. Politicians and regulators seemed to relish the opportunity to appear authoritative. Industry Canada (2014) wrote of the 3500 MHz reorganization:

In the renewal decision, the Department decided that any licensees that had not met all their conditions of licence, including the deployment requirement, would not be renewed. This has been referred to as the ‘use it or lose it’ policy.

Based on licence renewals to date, the Department expects about 100 licences to become available.

The regulator also declared that the threat of “use it or lose it” was having an impact: “Deployment in the 3500 MHz band has increased substantially since the ‘use it or lose it’ policy was established in the renewal decision, to the benefit of Canadians” (Industry Canada, 2014).

This certainly sounds like a regulator assuming control in its jurisdiction. In an interview with a senior ISED official working on spectrum, I posed the following succinct question: “Has a Canadian wireless ISP ever lost licensed spectrum under the ‘use it or lose it’ policy? If so, can you please provide examples?” While I appreciate the official agreeing to be interviewed, the official response was more of a deflection than a reply:

Yes, ISED has revoked spectrum licences based on non-compliance with conditions of licence. However, when ISED verifies a licensee is non-compliant with its licence conditions, the licensee is given an opportunity to present a compliance plan to bring its licence into compliance within a reasonable timeframe. In the vast majority of cases, this process results in licensees coming back into compliance without resulting in a revocation that could disrupt service to its existing customers. In limited cases, this process has resulted in licences being voluntarily returned, not renewed, or ultimately revoked. At the end of the day, the objective of the ‘use it or lose it’ policy is to ensure that spectrum is put to use to support the social and economic well-being of Canadians (2022, September 23).

In a follow-up question, I reiterated my request for an actual example of a spectrum licence being revoked. In response, the official said such information was not public and no examples could be provided. The official hoped to direct me to a webpage with the relevant information but discovered that no such page existed. In short, the spectrum regulator assured me “use it or lose it” was a viable policy, and yet could provide no evidence to support the claim despite repeated requests.

More common in the Canadian approach has been the equally toothless *RP-19 Policy for, the Provision of Cellular Services by New Parties*. RP-19 allows “third parties to apply to use spectrum in certain geographic areas where services are not being offered by the current licensee” (Canada, 2013). This policy sounds very close to “use it or lose it” and like that empty threat, the regulator was equally forceful in describing this policy. Industry Canada was adamant in a 2012 decision that “RP-019, *Policy for the Provision of Cellular Services by New Parties*, will be reviewed to assess possible changes to improve the process and determine whether the policy should be expanded to apply to other bands” (Industry Canada, 2012). According to this statement, in 2012, Canada’s spectrum regulator was not going to make this relatively bold initiative where others could access underused licensed areas. Industry Canada committed to potentially expanding the policy. However, nothing of the sort actually happened.

University of Alberta scholar Michael McNally conducted a study of rural broadband in Alberta in 2018 and referred to RP-19, calling it “a ‘use it or lose it’ type policy – that it [Industry Canada, now ISED] committed to in 2012, and has still not acted on” (McNally, 2018: 11).

In personal correspondence with a senior ISED official working in the spectrum program, this was the response when I asked directly “Was RP-019 (*Policy for the Provision of Cellular Services by New Parties*) ever reviewed and expanded?”

As we noted in our Access Licensing Paper: ‘RP-019, *Policy for the Provision of Cellular Services by New Parties* was introduced in 1998 as a way to provide for secondary licensing for a limited range of services; however, utilization of the policy has been limited. With the proposal of the Access Licence Framework, ISED is of the view that RP-019 is made redundant and will accordingly rescind this policy, effective August 16, 2021. ISED notes that this decision will not impact existing licences issued under the RP-019 policy’. There are currently no active licences granted under the RP-019 policy. (2022, September 23)

The national regulator did not say that the program as written in 2012 had been reviewed for expansion. It is clear that this previous effort to put some substance into “use it or lose it” statements ‘has been limited’. No examples were provided of even limited use of this regulatory approach. Like “use it or lose it”, RP-019 has proven to be ineffective.

The national spectrum regulator has been hard pressed to explain its inability to make “use it or lose it” a reality. Still, like politicians before them, senior bureaucratic officials resolve that “use it or lose it” remains a substantial arrow in their regulatory quiver. At a 2021 parliamentary committee hearing in Ottawa, Éric Dagenais, Senior Assistant Deputy Minister for Spectrum and Telecommunications at ISED did not mince words in his remarks about the regulator’s policy:

Mr. Éric Dagenais:

...we have pretty aggressive deployment conditions to ensure that those who end up buying the spectrum really abide by a ‘use it or lose it’ policy.

...Ultimately, the main objective is to get the spectrum into the hands of companies that will use it and provide services to Canadians. If they don’t meet the conditions of deployment, we have the ability to take away their licences.

However, when pressed further on the specifics of this policy by committee members, the Deputy Minister was less forthright:

Mr. Bernard Généreux:

Have you ever withdrawn any?

Mr. Éric Dagenais:

We have already had several discussions with Internet and telecom service providers regarding deployment conditions.

Mr. Bernard Généreux:

So, you are telling me that the conditions have always been met.

Mr. Éric Dagenais:

I said we had had several discussions. Generally, the problem was resolved afterwards. (Canada, 2021b)

There was clearly a strong non-commitment from the Deputy Minister to confirm the actual use of “use it or lose it”. He maintained the position later in the same hearing. When facing questions from M.P. Brian Masse, the regulator maintained it does regular interval checks but again offered no examples (Canada, 2021b).

As there is no publicly available evidence of these interval checks reported by the Minister, Canadians must take him on his word. A common refrain from research into the Canadian spectrum is the difficulty in accessing relevant data (Joseph, 2018; McNally et al, 2018). There is little doubt that ISED has the power to remove spectrum. The question remains, do they ever do it? Would the state dare to assert itself in such a forceful manner?

Later in 2021, ISED announced a proposal that, if enacted, would bring a potential “lose it or share it” approach to small tier spectrum licences. They proposed that “licences issued through the

Access Licensing Framework would be made available in rural and remote Tier 5 service areas where existing primary or subordinate licensees have not deployed services” (Canada, 2021c: 29). At the time of writing, the Access Licensing Framework had gone through consultation but is still not government policy. If it does get to that stage, this sharing approach may be as close as Canada’s spectrum policy comes to “use it or lose it” but stops short of the penalty that some critics have argued is too draconian. The policy appears more clearly aligned to the Ofcom/Calabrese/SaskTel recommended approach of “use it or share it” and therefore may have a better chance at becoming reality as it does not actually remove the licence from an incumbent. As proposed by ISED, access licences will only be available in Canada’s vast and sparsely populated rural and remote areas, where incumbents may be more amenable to sharing spectrum as the financial returns are limited.

Conclusion:

In a 2021 collection of essays entitled *The Debates Shaping Spectrum Policy*, William Webb writes: “There is rarely any reward in the public sector for making a bold decision that proves correct, but substantial down-side from making a poor decision, or even a good decision that results in adverse publicity” (William Webb, as cited in Sims, 2022: 87).

I think this observation speaks to the timid regulatory response concerning “use it or lose it” in spectrum policy in Canada and across the globe. The risk-averse nature of national regulators made this proposal, by and large, a non-starter. For several decades in most nations, spectrum assignment had been a fundamentally administrative process where the power of the state was paramount. However, beginning with the breakup of AT&T in the U.S. in the 1980s and the introduction of auctions as the dominant method of allocating national frequencies in the 1990s and 2000s, the idea of a regulator removing spectrum from a service provider ran contrary to the ethos of the era. There was, as Webb notes, a substantial downside.

This view also demonstrates the suitability of institutional political economy to assess this issue. As defined by Mosco, this approach incorporates “institutional history, the sociology of bureaucratic activity, the assessment of technological constraint and opportunity, and the influence of social custom, law, and culture on the social construction of value” (Mosco, 2009: 52). Analysis of bureaucratic activity in the telecommunications sector must consider the powerful yet largely unseen impact of corporate lobbying. In 2019, then chair of the CRTC, Ian Scott, was photographed out having a friendly beer with the CEO of Bell, while the company had major files regarding internet rates before the media regulator (Wong, 2022). Mr Scott was himself a former lobbyist for Telus. The institutional history of this sector reveals that the line between industry and bureaucracy in Canadian telecommunications is often permeable. The history of this policy clearly demonstrates the penchant of the bureaucracy to announce the imminent arrival of “use it or lose it”.

So, if the “use it or lose it” policy is rarely deployed, why is it so regularly heralded by regulators who should know better? Freyens and Yerokhin noted:

Regulatory agencies have to respond to the pressures of short-term political cycles. They need to produce relatively quick and tangible outcomes (such as a visible productive usage of spectrum) in order to satisfy the needs of constituencies and generate political gains. (Freyens and Yerokhin, 2011: 296)

This may be true of ministers, who are usually elected officials and therefore beholden to political cycles, but it does not necessarily hold true of the wider bureaucracy. In Canada, ISED is much more a branch of government than the arm's length CRTC. The clear connections between spectrum regulators and industry certainly account for some of the hesitation to deploy this policy, but this article demonstrates that there are wider political economic factors at play in various jurisdictions including the powerful forces of global capital. While the Canadian wireless market is largely protected from foreign ownership, regulators in other countries could face the formidable task of removing spectrum from well-financed global telecommunications corporations. For most governments, public rhetoric trumps economic intervention. Declaring that the government will reclaim unused airwaves can pay political dividends, while the reality of implementing this penalty in the face of powerful, politically connected corporations is daunting for any government.

The “use it or lose it” maxim has cynically been used by governments at various levels in Canada from across the political spectrum as a pithy soundbite that has little chance of becoming reality. It is a marketing phrase, more comparable to Nike’s “Just Do It” campaign than actual government policy. And it can work as a political sales tool. The province of Alberta, which has no jurisdiction in spectrum, has received positive responses for its position. In spring 2022, the President of the Rural Municipalities of Alberta commended the provincial government for advocating “use it or lose it” spectrum policy changes, which would prevent providers from reselling licences at a profit rather than to broadcast wireless internet signals” (Gervais, 2022). Rural Alberta generally is not supportive of the federal Liberal Party, who are actually in the legal position to make decisions regarding spectrum policy. It is, however, susceptible to the faux folksy wisdom of a political maxim.

While “use it or lose it” seems permitted in Canada by the regulators’ own deployment policies, it has never been acted upon, despite being part of the regulatory debate for well more than a decade. Spectrum policy is a regulatory poker match worth billions involving industry and government. Thus far, the regulator is largely bluffing, and the wireless industry knows it.

The late spring of 2022 saw an unusual development in this field via Bill S-242, which was intended to amend the Radiocommunication Act. It was nicknamed the “use it or lose it bill” by its author, Nunavut Senator Dennis Patterson (Senate of Canada, April 20, 2022). The tabling of bills via the appointed Senate is legal in Canada but unusual. In this case, a Senator from Canada’s far north found he needed to act on matters of national spectrum policy. Canadian Senators are appointed for life and not as concerned with political cycles. The text of the Bill tries to amend the Radiocommunication Act to give more explicit powers to the minister to remove spectrum licences from those who delay deploying service:

...the holder must deploy the spectrum to provide service to at least 50% of the population within the geographic area covered by the spectrum licence within three years of the licence’s issuance.... the Minister may, if the Minister is satisfied that the holder of a spectrum licence has not complied with the condition set out in subsection (1.11), revoke the licence by providing a notice of revocation to the holder that specifies the effective date of the revocation. (Canada, 2022a)

The “use it or lose it” phrase has been viewed as an empty gesture for so long that a member of the staid Canadian Senate sought to codify it in upper chamber legislation. As a deterrent to what one Senator has called “spectrum squatting”, the Bill even declared that “if the licence holder, by acting in bad faith, did not meet the deployment conditions and had their licence revoked, the population

that had been serviced by the provider and lost that service due to the revocation may initiate a civil claim for damages” (Canada, 2023b). Clearly, this Bill tries to offer emphatic punitive measures behind the sloganeering. At the time of writing, this Bill has completed third reading in the Senate and will be sent to the House of Commons (Canada, 2023b).

Whether this Bill is genuine engagement with the question of spectrum deployment or further political posturing remains to be seen. UK media scholar Sylvia Harvey once described policy creation as a “muddy soccer pitch” (Harvey 2003, as cited in Calabrese et al., p. 196) and certainly the decision-making process in this area of spectrum policy remains unclear. In this context, “use it or lose it” offers an often-misleading sense of clarity. It has a simple, unpretentious appeal in a field of communication that is often overwhelmed with technical jargon. It offers a simple take on a complex question. This maxim gives the illusion of a decisive intervention in a field of communications that has long been dominated by corporate interests.

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