Reply Submission by TELUS Communications Company

In response to

Gazette Notice No. DGTP-002-07:
Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services

27 June 2007

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One thing both TELUS and Quebecor agree on; AWS is not simply about wireless phone service. AWS represents an alternative information and entertainment content distribution platform. Small wonder that cable companies want to restrict entry by carriers like TELUS into that line of business. However no matter how many ads Quebecor runs in their newspaper empire about wireless prices, a simple truth remain: wireless prices keep declining year over year while cable bills just keep going up.

EXECUTIVE SUMMARY

The overwhelming conclusion of independent analysts and government agencies is that the Canadian wireless market is highly competitive. An increasing array of innovative services is available to Canadians across the country and rates are competitive with other countries. This has led to continuous strong year-over-year growth in the number of new subscribers and wireless penetration.

In the current competitive environment, no justification exists for Industry Canada to abandon the department's objective to rely on market forces to the greatest extent possible, in telecommunications generally and in this market in particular.

TELUS' success in creating a competitive and sustainable national network must not be undermined by uneconomic or unfair initiatives, including mandatory resale, to support potential "competitors" who are unwilling to undertake the same risks that TELUS undertook to achieve its success in wireless services.

Most importantly, potential new entrants should not be favoured in accessing spectrum. Spectrum should only be available through an open auction in order that market forces can drive competition.

Wireless remains competitive

The evidence clearly shows that wireless service in Canada is a dynamically competitive market. Basic indicators of competitiveness include ongoing shifts in market share between the major carriers, technological change and investment in analog to digital to 3G, continual growth in new products and services, continued strong growth in subscribers year over year and a steady decline in prices. Every year real price-per-minute declines and value increases. Canada has the second lowest rates for use of wireless technology among the G7 nations[1] – an average of 12 cents per minute.

TELUS' record of investment and innovation is everything that government expects from greater reliance on market forces. In just a few years, TELUS has evolved from a regional provider of wireless services in Alberta and B.C. to a viable national wireless provider. This was done by investing more than $7 billion in a national wireless network that already has a coverage footprint capable of offering advanced third generation (3G) services to more than 67%[2] of Canadians, including almost 100% of wireless subscribers in Alberta.

[1] Merrill Lynch, *Global Wireless Matrix Q1*, 2006.
[2] Bell Submission, QSI Appendix 4, *The State of Wireless Technologies in Canada*, p. 22.

Intervention undermines market forces

To favour certain companies in accessing spectrum is tantamount to a rejection of the government's recently announced policy "to rely on market forces to the greatest extent possible."[3] Favouring certain companies also sends the wrong signal to the investment community. If TELUS' massive investment, the 80% penetration in Alberta where we began operations and a leading rollout of content-based services is not sufficient to justify continued reliance on market forces, then what criteria does the government suggests meets its test for competitiveness?

Interested parties justify some of their claims for spectrum set-asides as necessary to reduce the costs of entry. Yet it is clear the end game is resale at regulated rates. Accordingly, set-asides coupled with resale not only waste spectrum where there is no intent to build but will artificially inflate traffic on incumbent networks.

Expert evidence also reinforces the point that set-asides and spectrum caps are a sub-optimal approach to encouraging entry. First, they are intended to lower costs for one competitor relative to another. Lower costs mean less return on spectrum to taxpayers. Second, set-asides artificially inflate costs for incumbents forcing them to bid higher on the little remaining spectrum available to them. The net result is either a taxpayer and/or incumbent subsidy to the beneficiary. In the current market environment, with three national carriers, two regional providers and a number of MVNOs to choose from, there is no public policy reason to adopt a set-aside regime.

Parties also call for set-asides on the premise that the incumbents benefited from set-asides in the early days of wireless. However such analogy uses one fact as a

[3] Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, 18 December 2006.

way to obscure a larger reality. When services were launched in mid-1980s there were no networks to roam on, no resale, no towers, no cell phones, no customers and certainly no monopolies such as cable companies received. Only a piece of paper existed that granted TELUS the right to take a major risk in return for a fee.

International comparisons obscure reality

TELUS submits that the use of international comparisons to justify intervention in a market that is deemed competitive by traditional measures is a dangerous game.

Europeans have a lower quality of wireline service, lower levels of wireless usage, local measured telephone service and a calling-party-pays wireless regime that shifts costs to wireline customers.

Canadian rates are said to be much higher than those in the U.S., yet even critics in this consultation agree that low volume entry level consumers have much lower rates in Canada.[4] And the latest OECD[5] data shows Canadian carriers actually have better rates across the board than in the U.S.

Most penetration numbers are biased to an inferior European model

The U.S. typically exhibits a more competitive environment than most European countries, yet has a lower penetration rate. In fact the U.S. is number 26[6] in the OECD in terms of penetration but has the highest usage and amongst the lowest prices, notwithstanding 2007 OECD results that place the U.S. only ahead of

[4] SeaBoard Group, *Lament for a Wireless Nation – A Cross-National Survey of Wireless Service Prices: Canada, the United States and Europe*, March 2007.
[5] OECD Outlook 2007, based on Teligen data.
[6] *Ibid.*

Turkey in terms of pricing. How else can low reported U.S. penetration be explained without accepting that the international comparisons don't work well?

Simply put the penetration metric does not tell the real story. It compares apples and oranges. If the arguments supporting a co-relation between price and penetration are valid then logically the U.S. should lead in terms of penetration. Yet the U.S. doesn't lead despite having lower prices, more carriers and the highest monthly minutes of use in the OECD.

If penetration data is directly related to price or usage, one would assume Canada and the U.S. should top the list. Clearly the European model of pay-per-call wireline pricing, notoriously high roaming rates, inferior network quality, and a calling-party-pays regime must also impact comparative penetration results.

Mandated resale destroys investment

TELUS has never opposed roaming on commercial terms but we submit mandating roaming, and more critically resale, will result in a significant, and unnecessary, degree of regulatory intervention in the market. Mandated resale raises issues that are the antithesis of encouraging investment. Mandatory resale is primarily a form of arbitrage employed to artificially lower cost inputs, in this case spectrum and coverage, by expropriating a share of an incumbent's investment in coverage and service. It is a method of market share allocation that has been employed by regulators primarily in monopoly circumstances and has generally failed to create sustainable competition. In fact the lower the rate set by the regulator, the more reliant competitors are on using incumbent networks rather than building their own. And the more the economics of the market are distorted.

What is troubling is that many of these parties were not just asking for simple roaming capabilities but rather for discounted access to the entire suite of 3G services currently being offered by the incumbent wireless carriers. That is not the way to create competition or increase investment, under any circumstances. It is in fact a disincentive to investment.

No carrier will invest or innovate to the same degree, if competitors are permitted to arbitrage or repackage the incumbents' investment and innovation by regulatory fiat. TELUS's wireless investment was built on risk, not built through monopoly protections or a regulated return on investment.

AWS is much more than voice

Since AWS will be very much about wireless content distribution, including entertainment distribution, it is important for government to consider the competitiveness of content distribution market in addition to, and relative to, the wireless phone business.

TELUS has begun to invest in IPTV to compete with cable and satellite content distribution. We have done so despite having neither a cable or satellite content distribution business. We are willing, however, to invest in alternative technologies like IPTV and AWS to compete in entertainment and information. What logic says our opportunities in content distribution should be restricted in favor of cable, in order to promote more competition in the emerging wireless content business?

TELUS continues to invest in innovation

In 2006, TELUS ranked in the top quartile for investment (wireless, wireline)[7] of the top global incumbent telecoms. Our recent investment of more than $100 million[8] to extend our 3G EVDO[9] technology in Western and Central Canada is hardly evidence of a standstill on investment. TELUS submits that differences in investment between Canada and the U.S. in the past 3 years have more to do with the string of national consolidations the U.S. market has undergone than diverging growth strategies.

Debates about whether emerging content services are "real 3G" obscure the obvious. New mobile TV, satellite radio, mobile computing, mobile music libraries and GPS services are all becoming standard options for Canadian consumers. And all are available to an increasing number of TELUS customers today.

It has been suggested in first round comments that Canadian wireless carriers do not offer innovative services, yet Canadians increasingly use cell phones and other wireless devices to:

- Watch live TV
- Listen to satellite radio
- Download entertainment from music to movies
- Surf the Internet
- Play video games
- Send instant messages
- Shoot and share photographs

[7] Based on capital intensity (capex divided by revenue). Source: Bloomberg and TD Securities.
[8] TELUS News Release, 31 May 2007.
[9] EVDO is the 3G standard for CDMA networks operated by many carriers in North America. TELUS is CDMA based.

- Use Global Positioning Systems (GPS)
- Engage in mobile computing
- Use video calling

For TELUS, 3G technology has allowed us to launch the Spark line of products, including mobile TV, music library, music downloads and satellite radio at competitive rates. For instance, Spark provides an unlimited music library service for only $20 a month. Our 3G EVDO network also allowed us to partner with U.S.-based Amp'd Mobile to bring advanced mobile entertainment and information to a younger demographic. The Amp'd Mobile service is every bit as innovative and cutting edge as anything Quebecor claims consumers need. TELUS is making it available today.

Content is bandwidth intensive

Content uses exponentially more capacity than voice. The expansion of cable from 12 channel analog delivery systems to 850MHz digital systems underscores the ever growing demand to support video. More spectrum will also be required by TELUS to meet increasing capacity demands for advanced wireless services, particularly video services.

Arguments that suggest that TELUS does not need additional spectrum to offer entertainment services should be seen as the facile and self-serving arguments they are. These statements seek to throw up a smoke screen and obscure what is clear: namely that the AWS band is a new band that will create more competition and choice in the content space. New, innovative technology and services will be developed for this band that may or may not be available in the current PCS band.

To suggest that TELUS has enough spectrum to support future video demand is to employ voice traffic statistics to predict video and broadband consumption. The only truth that seems to prevail in the new broadband world is that demand for capacity continues to outstrip supply.

No retail sector in Canada has the scale of the U.S.

The U.S. has one of the most dynamic economies in the world and leads Canada in terms of population, population density, scale and income.

Absent full integration of wireless into the North American economy, we will never match the U.S. on scale. In fact, measures that artificially induce entry in the Canadian market may further undermine efforts to achieve the scale necessary to compete relative to the American market. The fact that the Canadian wireless industry can still meet or beat U.S. prices for average and low usage consumers, provide better quality service[10] and provide near ubiquitous coverage on a per population basis should be taken as a considerable achievement.

That being said, TELUS has never taken a position against liberalization of foreign ownership. However we also anticipate that the current rules are not going to change in the current political environment. Industry Canada has already indicated that the ownership rules are not part of this consultation. Therefore the auction should proceed under this assumption recognizing all the incumbents and prospective entrants are large scale entities generating free cash flow and all have access to very large domestic and foreign pools of private equity.

Given the increased attention to the foreign ownership rules and signals that the limits might be lowered or eliminated, it is more than likely that significant foreign

[10] Based on independent third-party market research of dropped calls, ineffective attempts.

capital and private equity will seek to participate in the spectrum auction, in any event, speculating on liberalization or perhaps a quick flip. Similarly, U.S. carriers like Verizon and AT&T will be looking closely at potential partners in the auction.

Auctions are the best way to allocate spectrum

Open bidding does not constitute a barrier to entry when the potential new entrants are incumbent telecommunications or cable companies in their respective territories or monopoly hydro-electric energy providers. All have very deep pockets and potential for partnerships with foreign carriers and access to investment capital.

The government's role is not to underwrite risk. While wireless was licensed in an open competitive environment, cable was granted a protected monopoly franchise. Yet even with better returns at the time, cable companies abandoned holdings in Microcell at an inflection point in the market because they were risk averse.

MTS Allstream is also not owed favours simply because it wants to refocus its business strategies. Both MTS and TELUS began as regional telephone companies with affiliated regional wireless carriers. TELUS bought Clearnet for $6.6 billion to become a national wireless carrier. MTS Allstream chose national wireline long distance and bought Allstream for $1.9 billion instead of Microcell. Today TELUS's core business is wireless; MTS Allstream's is not.

It is unnecessary for government to try to decipher international comparisons to decide if the market is price competitive. The evidence in our domestic market is conclusive enough. Prices continue to decline and usage is amongst the highest in the world. Imagine how happy consumers would be if declining price was the rule for hydro and cable bills. Or at the gas pump.

For all intents and purposes, the competitiveness debate really boils down to a comparison between Canada and the U.S. Yet even on this basis, the evidence in this proceeding clearly demonstrates Canada has lower rates for low volume users and comparable rates for average users relative to the U.S.

Make no mistake, the use of selective comparisons in this proceeding by potential entrants are being used to justify the imposition of detailed economic regulation on a workably competitive market. That is a concept no rational economist could support. This proceeding has become as much a debate about whether to regulate Canada's wireless industry as it has about the actual terms of the AWS auction. There is no evidence that one can increase competition through increased regulation. That is completely illogical. And it definitely is not government policy. However if international comparisons are to form the basis for the Minister's decision, TELUS will take the latest OECD report that puts us ahead of the U.S. on all counts.

1. Introduction

Imposing regulation upon a deregulated market is a strange way to increase reliance on market forces

Much has been written and reported recently about Canada lagging behind relative to other economies when it comes to productivity improvement. There is a relationship between how the terms and conditions of the AWS auction are established and enhanced productivity. The AWS debate is all about whether to rely on market forces or manage competition.

The degree to which an economy actually relies on market forces as opposed to regulation to drive investment and innovation is a key determinant in achieving productivity gains. That is why the Canadian government recently announced a policy to rely on market forces in telecommunications to the greatest extent possible. A number of companies, including many of Canada's largest cable companies, are recommending that the government not apply this policy in this proceeding.

In telecommunications, Canada had tended to rely on regulation to manage markets, with the notable exception of the wireless market. There is general agreement managed competition has not achieved the results government sought. In fact it was the decision of the cable industry to invest in VOIP and to enter the local market that created a workably competitive market, not regulation. Now many of these same cable companies want to turn back the clock to old style regulation, subsidies and protections just as the wireless industry is poised to become a competitor in the distribution of content.

Ironically just as Canada begins to move away from regulation in the local phone market in favor of market forces, this consultation has become a debate about whether to allocate spectrum to a certain class of competitor, restrict access to others and to import monopoly-style rules like resale and unbundling into a market already governed by market forces. The rationale used to justify such intervention is not that the market is non-competitive but rather that government can somehow intervene to make it more competitive by adopting interventionist measures that have a past history of failure.

Since AWS is very much about wireless content distribution, including entertainment distribution, it is important for government to consider the competitiveness of that market in addition to, and relative to, the wireless phone business.

TELUS submits that, no matter the rationale used to justify the proposed reversal of recent government policy, a decision to impose regulation in wireless to achieve some theoretical form of "perfect competition" can only distort the market, reduce productivity and send a strong signal to investors that government can step in to change the rules on behalf of special interests and add to the already high risk existing players accepted.

Garbage in, regulation out!

Some parties, particularly those that have self interest in government intervention have made allegations that the wireless market is not sufficiently competitive and that Canadians are not therefore getting the full benefit of competition. This misleading allegation is based on complex and often inaccurate international comparisons that obscure the differences first between the North American market and the world and second between Canada and the U.S.

As McFetridge[11] argued, international comparisons are rife with problems. For example the latest OECD report on wireless pricing puts Canada ahead of the U.S. for low, medium and high volume users based on its latest metrics. Yet other studies suggest Canada lags the U.S. by a high margin for high volume usage. While the study one picks tends to support one's argument, we think the best measures to assess competitiveness are domestic because these reflect the economy in which we operate. Moreover when wireless spectrum is being allocated to support advanced broadband and video services, care must be taken in how much attention is placed on data regarding voice services.

That said, there is no doubt that domestically wireless is, and has always been, competitive by any number of criteria including declining price, massive investment, changing technologies and strong growth. Accordingly, government must take care not to intervene in the wireless business simply because some argue that Canada is not competitive enough when measured against international benchmarks for pricing and penetration.

TELUS notes much of the data presented in this consultation is like comparing apples and oranges. For instance Europe has been used as an example of how Canada lags in terms of productivity and competitiveness. Yet Europeans have a lower quality of wireline service, lower levels of wireless usage, local measured telephone service and a calling party pays wireless regime that shifts costs to the wireline customer. Does Canada seriously want to adopt the European telecommunications framework as a model?

Canadian rates are said to be much higher than those in the U.S., yet even critics in this consultation agree that low volume entry level consumers have much lower

[11] D. McFetridge, *Competition in the Canadian Mobile Wireless Telecommunications Industry*, 24 May 2007.

rates in Canada. And the latest OECD[12] data suggests Canadian carriers actually have better rates across the board. That's what the latest data says. Let's face it, data can be manipulated to make any case you want but that hardly is sufficient justification to turn a successful market upside down.

TELUS submits that the use of international comparisons to justify intervention in a market that is deemed competitive by traditional measures is a dangerous game. Using data which is not directly comparable in order to impose regulation or redistribute share, puts at risk large-scale investments made under high-risk circumstances. It is even more troubling when the data is more about voice service, while AWS is more about the future of content services.

Make no mistake, selective comparisons are being used in this proceeding by potential entrants to justify the imposition of detailed economic regulation on a workably competitive market. That is a concept no rational economist could support. This proceeding has become as much a debate about whether to regulate Canada's wireless industry as it has about the actual terms of the AWS auction. There is no evidence that you can increase competition through increased regulation. That is completely illogical in a market already governed by market forces. And it definitely is not government policy. However if international comparisons are to form the basis for the Minister's decision, we will take the 2007 OECD report that puts us ahead of the U.S. on all counts.

Why change the rules when they created a true Canadian success story?

The incumbent national and regional wireless providers that operate in Canada today took big risks to achieve the level of coverage, quality, innovation and competitiveness that prevails in the market today. They have made investments

[12]Based on results from Teligen data collected 2006.

that have resulted in 97% of the population having access to competitive digital networks and multiple services and service providers. Further reinvestment in 3G networks has already provided two thirds[13] of Canadians with access to next-generation services and more investment is planned to deliver next-generation content based services that will provide consumers alternatives to traditional cable and satellite services. That demonstrates a record of good stewardship of valuable spectrum resources.

TELUS submits that the achievements of the industry should not be dismissed and undermined by measures, such as mandatory resale or spectrum caps, that are intended to affect the existing economic balance in the market in favor of one competitor over another. The imposition of such regulation into the market, just as those that took a risk are reaping rewards, is particularly offensive since it would be intended to assist those carriers that passed on investing in wireless, or even exited the market, when the business case was in the red.

TELUS' record of investment and innovation is everything that government expects from greater reliance on market forces. Our record of achievement should make us a poster child for the government's new policy. In just a few short years, TELUS has evolved from a regional provider of wireless services in Alberta and B.C. to Canada's third national wireless provider. TELUS accomplished this, not by seeking regulatory benefit, but by investing more than $7 billion in a national wireless network that now provides advanced third generation (3G) coverage to more than 67% of Canadians, including almost 100% of wireless subscribers in Alberta. In other words TELUS has achieved, through investment and reliance on market forces, exactly what large corporations now lobby government to provide through market intervention.

[13] Bell QS1, p. 22.

To intervene now in favour of other regional players like MTS Allstream and the cable industry, would amount to a major reversal of the rules under which we invested. Moreover, it would be totally without justification given what TELUS accomplished by taking a risk, a $7 billion dollar risk – and a risk the others could have taken and still can take for much less investment.

TELUS has begun to invest in IPTV to compete with cable and satellite content distribution. We are doing so despite having neither a cable or satellite content distribution business. We are willing to invest in alternative technologies like IPTV and AWS to compete in entertainment and information. What logic says our opportunities in content distribution should be restricted in favor of cable, in order to promote more competition in the emerging wireless content business?

To intervene on behalf of risk averse cable and other companies is to return to the days of government picking winners and losers

We submit that regulatory intervention like resale and set-asides is simply not a fair or reasonable way to treat a Western Canadian success story. Nor is it good policy if government wants to encourage the use of wireless as a new content distribution platform. In Alberta and BC today Shaw holds 82% market share in broadcast distribution through its cable and DTH businesses. We are not asking government to restrict Shaw from pursuing more opportunity in wireless. We are merely asking for the unfettered ability to invest and compete, and to compete head-to-head.

Large regional cable or telephone companies have absolutely no right to argue the costs of entry are too high when the costs by any measure will be a small fraction of the $7 billion that TELUS invested to become a national wireless carrier. Nor does government now have cause to expropriate our investment through mandatory resale so Quebecor or Shaw can use our network at a regulated discount in order to make it easier for them to compete.

TELUS took a risk on wireless on the basis that the government had signaled that this market was to be subject to reliance on market forces. It would be unfair to change that course of action after TELUS and the other wireless providers suffered through many years of losses and now see that their risk has turned profitable. Past investment must not now be undermined by uneconomic and unfair government actions designed to support potential "competitors" who were, and still remain, unwilling to undertake the same risks that TELUS undertook to become a real national alternative.

TELUS does not fear competition. We continue to invest in high risk ventures today like IPTV and wireless content. But competition must be on a level playing field. Early investors in wireless should not be penalized by unfair measures designed to prohibit TELUS from fully competing in the upcoming spectrum auction. Potential entrants should not be favoured in accessing spectrum. Evidence in Canada, the U.S. and elsewhere is persuasive that regulatory intervention is more likely than not to contribute to market failure at a high cost to customers, investors, taxpayers and the economy in general.

Wireless is a large scale business and it is not surprising that only large scale enterprises have succeeded in the market. Willingness to take a big risk is critical to ensuring real competition and continued innovation. Spectrum should only be available in an open auction in order that this valuable resource is not squandered on cream skimmers or speculators but rather is put directly in the hands of those companies which will make the most of the resource. Canada's largest cable and communications companies do not require government support to enter the market.[14] Not only do such carriers have internally-generated free cash flow and a large customer base to leverage, they also have access to huge pools of private equity and partnerships with foreign carriers.

Simply put, to favour certain companies in accessing spectrum is tantamount to a rejection of the government's recently announced policy "to rely on market forces to the greatest extent possible." It also sends the wrong signal to the investment community. TELUS submits that if our massive investment, the 80%[15] penetration in Alberta where we began operations and a leading rollout of content-based services is not sufficient to justify continued reliance on market forces, then what criteria does the government suggests meets its test for competitiveness?

Canada's record of innovation and investment is self-evident

Canada's wireless industry is right to be proud of its achievements. In just over 20 years our industry has overcome challenges of scale, challenges of hostile geography and low population density to service over 97% of this country's population with second generation digital services and now over 67% of the population with 3G service. While some parties now discount such achievement, as they must to gain favourable regulatory conditions, this is an awesome achievement. As Ericsson CEO Mark Henderson said:

> But building a comprehensive and secure cellular network in Canada has some unique challenges. Canada's geography and population distribution, which makes our nation so unique, presents complex technical and business hurdles. The geographical distances are enormous and in order to cover the nation, Canadian cellular operators need to establish a large number of cell sites across the country. The result is some of

[14] Quebecor reported almost $10 billion in revenues in 2006. Shaw has a market cap near $10 billion.
[15] Statistics Canada, December 2006, Household Penetration, Survey number 4426.

> the largest networks in the world. Though Canadians may not realize it until they travel, independent tests of global wireless networks continually rank us at the top in terms of quality of service.
>
> Like its geography, the Canadian cell market is characterized by variety. Its wide selection of technology solutions is a result of a strong history of competition among operators.
>
> Legacy, or first-generation systems, provided affordable basic cellular services. Several years ago they were upgraded to digital, or 2G systems, allowing Canadians the choice of network services. But the carriers didn't stop there. Understanding the basic nature of competition, cellular providers offered continual improvement of voice quality, privacy and enhanced services. Infrastructure upgrades have accelerated in recent years with the implementation of 3G, or third-generation, networks. These systems, designed to handle voice and data simultaneously, allow Canadians to efficiently use advanced data applications such as wireless e-mail, multi-media messaging services, and picture messaging. In fact, all of the major wireless operators in Canada are expanding their 3G networks.
>
> Additionally, the growth and competition in the cellular industry has created a strong Canadian wireless ecosystem, building the foundation for companies such as Research in Motion, Nortel and Sierra Wireless. The Canadian telecommunications sector has also remained attractive to multinational technology companies, such as Ericsson, Alcatel/Lucent, Nokia and others.[16]

In many respects Mr. Henderson has stated the obvious. Canada is a world leader in terms of telecommunications, teledensity and productivity. Industry Canada itself often extols the virtues of the industry in this regard nationally and internationally. And our high quality networks and high usage wireless services are major contributors to this productivity.

[16] National Post, 23 May 2007.

Declining prices, steady growth, innovative new services and shifting market shares are all signs of a competitive market

The Canadian wireless industry has been competitive since its inception, resulting in constant growth, declining price and constant innovation. Again that cannot be disputed. In fact it would be difficult to identify a more competitive sector in communications in Canada.

As Wall Communications points out, the average revenue per user (ARPU) of wireless has dropped from $175 a month to $57. If one were to examine prices in other communications industries, most prices would be flat or steadily increasing like cable rates. A fact conveniently overlooked by potential competitors.

As Rogers President Nadir Mohammed recently point out, one need only to examine shifts in market share to show that the market is competitive. "We battle it out to win share," he said. "It is absurd to me that there's a notion we're all equal and we're all sharing this pie." Mr. Mohamed pointed to Rogers' recent gains in share of the postpaid wireless market as proof of competition between the big three. Since Rogers bought rival Microcell in 2004, the company has seen its share rise to 45% from 20% while Bell has seen a corresponding loss, from 43% to 23%.[17]

TELUS echoes this sentiment. While TELUS may not be lead in total size of subscriber base, we added 90,500 subscribers in Q1 versus 85,800 for Rogers and 13,000 for Bell. That is a direct result of competition and proof that strong subscriber growth continues.

[17] National Post, 12 June 2007.

Watching TV on a cell phone or listening to satellite radio are innovations

It borders on the absurd to say Canada's wireless industry is not innovative, as some parties have claimed. As Mark Henderson suggests:

> Understanding the basic nature of competition, cellular providers offered continual improvement of voice quality, privacy and enhanced services. Infrastructure upgrades have accelerated in recent years with the implementation of 3G, or third-generation, networks. These systems, designed to handle voice and data simultaneously, allow Canadians to efficiently use advanced data applications such as wireless e-mail, multi-media messaging services, and picture messaging. In fact, all of the major wireless operators in Canada are expanding their 3G networks.
>
> Competition within the industry continues to raise the technology bar. We are about to enter an era of wireless broadband, where download speeds can approach 14 megabits per second -- a speed more commonly associated with wired broadband. These systems, based on a technology called HSPA or high-speed packet access, allow a plethora of new wireless services, such as video telephony. Rogers recently launched this service in the Golden Horseshoe area, and is expanding its offerings across the country.
>
> As our wireless world evolves, we will continue to enjoy the latest technologies, combined with an enviable selection of services.[18]

Debates about whether emerging content services are "real 3G" obscure the obvious. New mobile TV, satellite radio, mobile computing, mobile music libraries and GPS services are all becoming standard options for Canadian consumers. And AWS spectrum will only increase the capacity necessary to deliver these services with a broadcast quality that challenges existing cable and satellite providers.

[18] National Post, *supra* note 16.

Cable does not want more competition in the content distribution business

Potential entrants like Quebecor either deny the existence of services like mobile TV or claim they are not as "3G" as in Europe. While this spin conveniently ignores the chaos and delays caused by the abject failure of the EU mandated UMTS standard for 3G in Europe, it also ignores a key point. AWS is intended to provide the capacity required to deliver next generation broadband and broadcast content. Make no mistake the wireless content business is going to require massive amounts of capacity.

Cable and others promise that if they were granted spectrum and entitlement to our networks, they would offer many of the same wireless content services in another 2 years' time, but better. This argument belies the fact that all services, especially those provided by existing carriers will be dynamically enhanced in another 2 years given the speed of change in the digital world. Moreover, it is unclear to TELUS what innovative advantage, new entrants hope to achieve by piggy-backing on the infrastructure of the existing carriers. How exactly new entrants intend to deliver superior services by reselling our supposedly "inferior network" services is hard to understand. Unless the real cable strategy is to block serious entry into the content space, by restricting access to spectrum and to create regulated advantage for cable bundles through mandated resale of wireless phone service.

Broadband wireless will require exponentially more capacity

Content uses exponentially more capacity than voice. The expansion of cable from 12 channel analog delivery systems to 850MHz digital systems underscores the ever growing demand to support video. More spectrum will also be required by TELUS to meet increasing capacity demands for advanced wireless services, particularly video services.

In this auction, the Department needs to allocate the limited amount of available spectrum to those parties that value it most. TELUS considers that wireless content is a critical part of its multi-platform strategy. Unlike virtually every other player in this debate, incumbent and entrant, TELUS has neither a cable or satellite platform. Our content strategy is therefore predicated on high risk strategies around IPTV and wireless content.

TELUS has no dominant position in the content business nor indeed any significant share; it has only a willingness to invest. Attempts, therefore, to restrict our investment strategy by larger content player scan only undermine competition in the emerging digital media space.

Arguments that there is insufficient investment capital in Canada assume no one has read the business section in the last 6 months

If cable or any prospective entrant is truly willing to take the risks associated with investment in the wireless business, it should demonstrate this by participating in the upcoming auction on an equal footing with the incumbent carriers. Open bidding does not constitute a barrier to entry when the potential new entrants are incumbent telecommunications or cable companies in their respective territories or monopoly hydro-electric energy providers. All have very deep pockets and potential for partnerships and access to investment capital. Government will not succeed in creating lasting competition by supporting potential entrants that are unwilling to undertake the risk and real cost to compete.

To suggest that cable companies need support because they cannot afford a fraction of what TELUS risked in 2001 is a step back to old style intervention intended to "get competition just right". There simply is no basis to justify regulatory intervention as long as prices decline, innovative services continue to roll out, market share is shifting amongst the competitors and the market continues to add subscribers in robust numbers each year. That is clear evidence of a competitive market.

And there is certainly not a public policy rationale that supports helping Quebecor or Shaw get more share of the information and entertainment content distribution space.

If government rejected intervention when the market was in the red, it has no justification to intervene once it is in the black

Providing incentives to favor additional competitors is simply a bad idea because it fundamentally fails to recognize the difference between measures which might be appropriate in a monopoly situation and a proper response to a market that is already competitive. The measures proposed in the consultation document are based on bad economics and could cause real harm to a Canadian success story which grew out of reliance on market forces. Unnecessarily curbing market forces at this point through measures like mandatory resale will not have the desired positive result on Canadian competitiveness and innovation and may in fact have negative effects on reinvestment and innovation.

Simply put, no carrier will invest or innovate to the same degree, if competitors are permitted to arbitrage or repackage said investment and innovation by regulatory fiat. TELUS's wireless investment was not built through monopoly protections or a regulated return on investment. That $7 billion invested was all risk capital. Government did not intervene when the industry was losing billions and stocks were bottoming out. We submit that under these circumstances government has no justification to take actions that will result in redistribution of profits after years of losses. What potential entrants propose is a very banana-republic approach to markets.

TELUS submits that the reasons that proposals for regulatory intervention will disrupt the market are well documented and well understood. We suggest that the Department be guided by past failures of regulatory intervention to ensure that mistakes are not repeated just as 20 plus years of investment and risk-taking are about to payoff in the evolution to 4G networks. Cable knows how to compete in content without help or protection.

Set-asides have failed in the market before and won't work now

The arguments of the proponents for spectrum set-asides seem to invoke the reasoning of the great philosopher Yogi Berra: ***since set-asides kept failing in the past, maybe they will work in the future***.

TELUS has presented numerous domestic and international examples to demonstrate that measures taken to entice new market entry have consistently failed to produce the desired outcome.

Set-asides and artificially measures like resale have a record of failure in Canada, the United States and Europe. In fact most jurisdictions don't support mandatory resale. Such intervention didn't work in Canada when the wireless market was at 12% penetration and is less likely to work where there are three national carriers as well as regional players and MVNOs to choose from and a penetration rate in

2009 between 70 and 80%. That will mean that competitors that based their business on regulated economics will be back for more intervention.

Expert evidence also reinforces the point that set-asides and spectrum caps are a sub-optimal approach to encouraging entry. First, since they lower costs for one competitor relative to another they reduce returns to taxpayers. Second, set-asides artificially inflate costs for incumbents forcing them to bid higher on the little remaining spectrum available to them. The net result is either a taxpayer and/or incumbent subsidy to the beneficiary. Accordingly, set-asides are neither fair nor reasonable. Particularly when the main beneficiaries are cash flow rich and could have had a national licence for very little investment 5 years ago.

Spectrum caps punish TELUS disproportionately

It is completely disingenuous for some competitors to ignore the effort and cost it took TELUS to achieve national carrier status. Yet that is exactly what potential entrants are doing by suggesting the only way to achieve success is through regulatory intervention at our expense. Our success was achieved through risk capital and the reward should not be cavalierly expropriated to cushion risk for cable barons and others.

Spectrum caps target TELUS more than other competitors

Spectrum caps are particularly offensive to TELUS which holds less 800/1900 MHz spectrum than its incumbent competition. Evidence by Lemay Yates shows Rogers has 75 MHz of 800/1900 spectrum on average while TELUS has 40MHz. While Lemay Yates argued TELUS also holds 10 MHz of ESMR spectrum that network is totally separate from, and targeted, at a unique business vertical.

Caps are even more troubling in terms of TELUS' strategy to focus on emerging digital platforms to enter the content business. TELUS does not have a satellite video platform like Bell or a cable platform like Rogers. Shaw not only is dominant in cable but it also has the leading DTH service in western Canada providing it the largest share in content distribution in many western communities. Quebecor's scope in Quebec extends from cable to TV and print.

That said, TELUS is not seeking regulatory advantage to get into the digital media business. Just no handicaps.

In effect at the very time TELUS requires more bandwidth to support content-rich services, dominant content companies are deliberately trying to limit a viable entry strategy by TELUS into content distribution.

TELUS has taken significant risks and made huge investments in order to become Canada's third national wireless provider. It is neither reasonable nor equitable that TELUS should now see itself being put at a disadvantage in this auction both with respect to the other two incumbents and also with respect to prospective cable competitors.

Mandated resale will lead to more arbitrage, more regulation and less investment

In its consultation Industry Canada has proposed that customers of new entrants need to roam outside their home-market footprint. TELUS does not oppose roaming on commercial terms. We have agreed to a variety of roaming arrangements in the past that are individually priced to tie compensation to the circumstances of the deal. That's standard behaviour in any competitive market.

Potential entrants however don't want roaming they want resale in order to compete using incumbent networks to offer services.

Mandated resale is a much more extreme intervention than roaming; although both must be commercially based to reflect value. Roaming allows a customer within the footprint of a facilities-based carrier to use their phone when traveling beyond that footprint. Resale enables a competitor to use another carrier's network to actually sell service to and acquire customers outside of its facilities-based footprint.

Mandated resale raises issues that are the antithesis of encouraging investment. Mandatory resale is primarily a form of arbitrage employed to artificially lower cost inputs, in this case spectrum and coverage, by expropriating a share of an incumbent's investment in coverage and service. It is a method of market share allocation that has been employed by regulators primarily in monopoly circumstances and has generally failed to create sustainable competition. In fact, the lower the rate set by the regulator, the more reliant competitors are on using incumbent networks rather than building their own. And the more the economics of the market are distorted.

Unbundling has no place in the wireless market. It is a thinly veiled attempt to expropriate spectrum.

Unbundling is an even more draconian regulatory intervention that has only been used in the case of monopoly-provided essential facilities. By no definition currently used by the CRTC can any aspect of Canada's wireless industry be considered to be an "essential facility". Moreover there is no economic literature or regulatory precedent for defining competitively provided facilities as essential.

Since there is no monopoly provided facility in the wireless market, unbundling would result in reallocation of facilities built by incumbents to other carriers in order to enable them to compete more effectively without having to make significant investments of their own. Not only was such a proposal dismissed by the CRTC in the AIRreach case,[19] but the CRTC is having a proceeding on wireline essential facilities in order to reduce the number of facilities currently being unbundled. Notably in that proceeding, no one has proposed that wireless is an essential facility.

Not only is unbundling unjustified, it is also ill-advised given that it requires immense regulatory resources to create costing systems to implement and endless debates and disputes over getting the right balance between competitor and incumbent monopolist.

Conclusion

TELUS recommends strongly that before proceeding to intervene in this market, Industry Canada seriously consider the costs of intervention and the needs of those on whose behalf intervention is employed. Regulatory intervention is not a zero sum game. It can be costly to the economy in general as past U.S. and U.K. experience demonstrates. It can clearly be costly to incumbents who are faced with punitive measures for taking risk and succeeding. As discussed above, the measures debated can restrict access to spectrum, create advantage to those unwilling to take risk, reallocate earnings via resale and roaming and shift the nature of the market from one guided by reliance on market forces to one managed by regulatory fiat.

[19] CRTC, Telecom Order 98-1092, 3 November 1998.

Industry Canada should look closely at the carriers making the arguments for such handouts, their need and assess their record of investment and innovation. Simply put, cable wants to extend their leadership in content distribution without risk.

Moreover cable argues that because wireless carriers were initially granted licences to build, cable is now entitled to the same treatment. Yet the cable business was started under similar and even more favourable circumstances. While wireless was licensed in an open competitive environment, cable was granted a protected monopoly franchise. Yet even with better returns at the time, cable companies abandoned holdings in Microcell at an inflection point in the market because they were risk averse. That is not evidence of market failure. It is certainly not evidence that government or the industry owes cable another break. Particularly a break to develop a competitive content distribution platform.

Cable companies do not need a handout anymore than TELUS deserves government support to enter the video business. Yet how could government allow cable the right to mandatory resale, roaming, unbundling and tower sharing without allowing some reciprocal requirement to open cable broadcast distribution operations to resale? To intervene on one side of the equation only would otherwise be to turn the market for content distribution and bundles on its head.

MTS Allstream is also not owed favour simply because it wants to refocus its business strategies. Both MTS and TELUS began as regional telephone companies with affiliated regional wireless carriers. Both had opportunities to expand nationally and both did, along radically different paths. TELUS chose to abandon Stentor and the Mobility Canada alliance and go it alone, while MTS invested in Intrigna/Bell West. TELUS bought Clearnet for $6.6 billion to become a national wireless carrier. MTS Allstream chose national long distance and bought Allstream for $1.9 billion. Today TELUS's core business is wireless, MTS Allstream's is not. Again no evidence of market failure, just business decisions; some good, some bad. That is how markets work.

MTS Allstream has no record on which to justify its criticisms leveled against TELUS and other incumbents. MTS is also an incumbent wireless carrier but it compares dismally to TELUS. TELUS simply invested more in wireless than MTS and took bigger risks. That is why penetration in its core markets in Alberta and BC is higher than the case in Manitoba, why our 3G coverage is better and our prices every bit as competitive.

Similarly why should wireless have to apologize to cable and hydro on measures of either competitiveness or pricing? Cable and hydro created their wealth through monopoly franchises. Wireless was always competitive and lost money for years. And yet wireless pricing has constantly declined while value increased. Value has increased in these cable and hydro markets but where is the evidence of price decline? Why must our business be limited by government intervention to serve corporate interests that don't have a similar record of achievement?

2. Reply to Arguments to Support Government Intervention

1) "The Wireless Market is Not Competitive"

There is clear evidence that wireless is a dynamically competitive market. Basic indicators of competitiveness include ongoing shifts in market share between the major carriers, technological change and investment in analog to digital to 3G, continual growth in new products and services, continued strong growth in subscribers year over year and a steady decline in prices. All these conditions exist in Canada. Every year price/cost per-minute declines and value increases. In fact at an average of 12 cents per minute, Canada has the second lowest rates for use of wireless technology among the G7 nations.

TELUS investments contributed to a shift from a market with three financially challenged national carriers, including Rogers, and a consortium of regional carriers in 1998 to one that includes three viable national carriers, some regional carriers, and a number of MVNOs and partnerships providing additional choice and segmentation at increasingly lower rates. All these factors create a stable platform for continued growth and innovation. That after all is the point. To quote Mark Henderson again:

> Canadians today can choose from a wide selection of cellular technologies -- a selection that is one of the largest in the world. They can also choose from a wide array of service providers, not only from large network operators such as Rogers, Bell and TELUS, but also from MTS Allstream, Fido, SaskTel, Virgin, Videotron, President's Choice Mobile, Amp'd and 7-Eleven. Each offers unique packages and benefits to its customers.[20]

2) "Canadians Pay High Prices"

In terms of analysis of pricing, the submissions in this consultation have resulted in a multitude of studies with different results depending on the interests of the party. The wide differences are due in large part to the problems of international comparisons. But some facts remain obvious. First, price continues to decline year over year. Second, usage is very high compared to most other countries, with the exception of the U.S. Third, Canada and the U.S. have a productivity advantage relative to Europe because of much higher usage and emphasis post-

[20] National Post, *supra* note 16.

paid services that include handset subsidies. The combination of post-paid bundles and high usage creates a much lower per minute rate than many jurisdictions. Canada is highly competitive with a RPM of 12¢ a minute. As stated above that is the second lowest per minute price in the G7.

Competitive pricing is not limited to local calling. New TELUS wireless LD plans show that pricing is both dynamic and declining for our customers. For instance for $20 customers can have unlimited long distance calling on weeknights and weekends. For $30 they can have unlimited calling within Canada anytime.

For all intents and purposes, the competitiveness debate really boils down to a comparison between Canada and the U.S. Yet even on this basis, the evidence in this proceeding suggests Canada has lower rates for low volume users and comparable rates for average users relative to the U.S. There has been general agreement that the U.S. is more competitive on big buckets, while Canada is considered to have more choice in terms of *à la carte* pricing.

These are not conclusions of one analyst. Even studies supported by potential new entrants come to this conclusion. Lemay Yates (for Quebecor) finds prices comparable, if slightly higher to U.S. at 400 MOU per month. Seaboard determined prices for low volume users were some 27% lower than in the U.S. While dismissing such consumers as “survival users” it is interesting to note that Canadian “survival” MOU is equivalent to average usage reported in many European jurisdictions.

Ironically potential entrants have suggested that many of the metrics used by TELUS and the CWTA are dated. If that is the case, what will they make of the reports that latest 2007 OECD report ranks Canadian carriers ahead of U.S.

carriers? While TELUS has argued that all comparisons are rife with problems, we cannot miss the opportunity to point out that if comparable TELUS services had been used in this study, Canadian prices would have come out a further 20 to 30 percent lower.

International price comparisons mask too many differences to be truly helpful. The OECD numbers are designed for a European model that has much lower MOU than either Canada or the U.S. In Europe much of the cost of wireless is imposed on wireline customers through a Calling Party Pays. If Canada had wanted a European model, it could have adopted a Calling Party Pays regime. However that idea was rejected by the CRTC. Moreover such a local measured pricing model would not find much traction with Canadian consumers who benefit from a very low-cost/high quality/flat rate wireline telecommunications service.

It is unnecessary for government to try to decipher international comparisons to decide if the market is price competitive. The evidence in our domestic market is conclusive enough. Prices continue to decline and usage is amongst the highest in the world. Imagine how happy consumers would be if that was the case for hydro and cable bills. Or at the gas pump.

In assessing the wireless industry in Canada, we are somewhat better off to focus on comparisons with the U.S. For lower end consumers, all analysts agree that Canadian consumers get a better deal. That should be a point of pride. In the middle, there are studies that go both ways. It depends on what is included or excluded from the basket. For heavy users, there seems to be gap as a result of all-in bucket pricing. The question thus becomes; is it realistic to assume we can match U.S. rates across the board given differences in scale, income and population density? After all, similar Canada/US price differentials replay across virtually every segment of the retail sector from TVs to PCs. It is simply an issue of scale.

The U.S. has one of the most dynamic economies in the world. Absent full integration of wireless, into the North American economy, we will never match the U.S. on scale and clearly you can't blame the wireless industry for the gap in income. Arguably you could blame a Canadian predisposition to regulate. Therefore the fact that the wireless industry can meet or beat U.S. prices for average and low usage consumers, provide better quality service and still provide near ubiquitous coverage on a per population basis is a considerable achievement.

Accordingly, in making these comparisons, the issue is, do we stand up well, given our scale and geography? Clearly on many metrics we do. Would a new Canadian carrier make a difference on the high volume user differential or would arbitrage simply artificially shift share, reduce margins and reduce reinvestment to compensate for intervention? That's a question that government needs to seriously consider and a risk it does not need to take. Arbitrage may artificially lower price at the cost of reinvestment but it has generally failed in the longer term as a business strategy.

Finally, Canadian data prices are currently set to recover initial investment in 3G but have been declining. However, TELUS recently has introduced a number of new plans such as Double Data on e-mail (September 2006) and new Blackberry/Smartphone entry level pricing (March 2007). In addition TELUS has introduced a number of unlimited Spark features for mobile TV, radio and music that start as low as $18 per month for satellite radio.

Part of the data rate conundrum is the need to find an appropriate balance between data pricing and video consumption in order to limit congestion on the TELUS network. TELUS considers that more spectrum for AWS entertainment and information services is a critical part of the capacity/price challenge.

3) "Penetration Gap Is Increasing"

In first round comments TELUS refuted criticism about Canada's nominally low rate of penetration and provided expert evidence[21] to suggest why international comparisons generally have limited value. While parties have argued that Canada is falling behind in terms of penetration and that the penetration gap is increasing, there remains clear and unambiguous empirical evidence of year-over-year growth in Canadian penetration, as the industry continues to post strong annual net subscriber additions. Strong growth and one of the highest rates of usage in the OECD suggests that international penetration comparisons do not reflect market reality.

The international comparisons presented by potential new entrants don't work for a variety of reasons. As many experts suggest, pricing is not directly correlated to either penetration or number of carriers in a market. The U.S. typically exhibits a more competitive environment than most European countries, yet has a lower penetration rate. In fact the U.S. is number 26 in the OECD in terms of penetration but has the highest usage and among the lowest prices the world. How else can reported low U.S. penetration be explained without accepting that the international comparisons don't work well?

Are we seriously to believe that Europe is far outperforming the U.S. in the wireless sector?

[21] D. McFetridge, *supra* note 1.

The principle reasons for huge differences in penetration rates between Europe and North America are the use of multiple SIM cards in Europe to avoid high roaming charges, greater wireless substitution to address the lower quality and availability of wireline service, higher wireline costs in Europe caused by local measured service and the existence of a Calling Party Pays regime which reduces cost by shifting cell phone costs from wireless to landline subscribers.

Simply put, the penetration metric does not tell the real story. It compares apples and oranges. If the arguments supporting a correlation between price and penetration are valid, then logically the U.S. should lead in terms of penetration. Yet the U.S. doesn't lead despite having lower prices, more carriers and the highest MOU in the OECD.

Canada has the second highest MOU in the G7[22] and actually lower prices than the U.S. for entry level consumers. Obviously entry level consumers are the most principal target for increasing penetration. If penetration data is directly related to price or usage, you would assume Canada and the U.S. should top the list. Clearly pay per call wireline pricing, notoriously high roaming rates, inferior network quality, and a Calling Party Pays regime must also impact comparative penetration results.

When penetration numbers are normalized for these factors, we would expect to find more comparable results between Canadian and European countries. Rogers' presentation of Vodafone research in argument[23] empirically makes that case.

One of the best examples of distortions created by SIM card inflation is Italy. The reported penetration rate in Italy was 126% at the end of November 2006, yet

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[22] Merrill Lynch *Global Wireless Index*, 3Q06.
[23] See Rogers' comments, 25 May 2007, p. 33.

penetration in terms of individual subscribers is actually much closer to 72% of the population based on a multiple SIM use factor of 1.75 per person.[24] That is a more rational conclusion than to pretend even infants all have cellular phones.

Finally as stated, affordability concerns have kept Canadian local telephone prices amongst the lowest in the OECD. Arguably Canadian regulatory policy has dampened wireless growth but increased overall access to phone service and improved productivity. If productivity is the goal, we exceed our European counterparts in terms of flat rate local, post paid wireless, high quality networks and overall usage.

Regardless of the metrics used, wireless is now a highly-penetrated market in Canada, particularly in the urban areas where the new entrant(s) will focus. By 2009, national penetration is expected to be between 70% and 80%, making it difficult for new entrants to gain sustainable market share. In fact, in Alberta penetration is already over 80% and 3G coverage nearly ubiquitous.

The level of penetration in Canada has import for the success of regulatory interventions like set-asides. Evidence suggests that interventions like those contemplated in this consultation have never worked in markets where penetration already exceeded 45%.[25]

Finally, TELUS submits that population density may be a significant factor in penetration results. Canada has a large rural area and comparatively low population per sq km. We know from CWTA research, that penetration in major cities is closer to 80% than 60%. It is already 80% in Alberta.

[24] Vodafone. May and November 2006, Wireless Intelligence, April 2007.
[25] UBS Investment Research, *Wireless Disruptive Forces – Noise or Reality*, 28 November 2006 (based on assessment of 30 countries, pp. 42-43.

Critical mass is an important element in the penetration debate. Wireless is a critical component of the enterprise market in Canada, just as in the U.S. No party has suggested that the business community in corporate Canada have materially less wireless devices per capita than U.S. counterparts. But it is clear that there is a gap in rural areas relative to urban that reflects lack of scale, lower population density and less economic activity. The rural gap is a challenge but it will not be solved by competitors building more plant in major urban centers and competing via resale elsewhere. In fact resale will reduce incentives to otherwise extend network footprints.

4) "Canada a Laggard in Terms of Investment"

According to some parties Canada, has a poor record of investment. Quebecor cites data to suggest that CAPEX intensity in Canada vs. U.S. was 38% less over last 3 years. TELUS objects to such a short term snapshot. No one disputes the overall $20 billion dollar investment in facilities by Canadian carriers. Moreover, TELUS is recognized to be in the top quartile for investment (wireless, wireline) of all carriers in North America. Our more than $100 million EVDO build is hardly evidence of a standstill on investment. TELUS submits that differences between Canada and the U.S. in the past 3 years have more to do with the string of national consolidations the U.S. market has undergone than diverging growth strategies.

TELUS invested $7 billion national network and close to $10 billion in total to gain advantage in wireless. We are investing in IPTV and EVDO to enter the digital media space and fully plan to do what it takes to become a leading alternative platform provider in the next-generation delivery of entertainment and information.

Three year time series to assess CAPEX intensity in telecommunications can be very misleading. Investment is cyclical and lumpy. If one has compared CAPEX intensity for cable versus TELUS a further 3 years back, one would have noted that while TELUS was investing billions in wireless, cable spending was being slashed to demonstrate to the market that that industry could generate free cash flow. All this suggests is that in assessing CAPEX, one needs to examine long haul investment and not focus on particular cycles to get an accurate portrayal.

5) "Canadian Operating Margins Higher Since Microcell Taken Out"

Some parties suggest that because high Canadian ARPU is indicative of a high margin strategy. They ignore that Canadian ARPU and ARPU in the U.S. are relatively the same because both countries promote high usage post-paid service over low-usage pre-paid. As noted in first round comment, post-paid service is recognized to be a better contributor to overall productivity. The critics arguments also ignore that actual revenue per minute is extremely low and voice ARPU is declining. At an average 400 minutes of use per month Canada ranks amongst the highest in usage in the world and as a consequence has rates that are amongst the lowest on a per minute basis. High usage translates into real value for customers.

At the end of the day, the 22-year investment by the incumbent carriers has paid off after years of dramatic loss. Canadians are using wireless for more of their business, data, social and entertainment needs. Margins have improved because some carriers had the foresight to predict the growth of wireless in the economy and the fortitude to stick with their investments. That is exactly the type of entrepreneurial spirit government wants to encourage. However, TELUS is not resting on its laurels; rather it is now aggressively investing in 3G services directly in network investment and through content partnerships such as the launch of Amp'd Mobile in Canada.

6) "No Real 3G Services"

It has been suggested in first round comments that Canadian wireless carriers do not offer innovative services, yet Canadians increasingly, use cell phones and other wireless devices to:

- Watch live TV
- Listen to satellite radio
- Download entertainment from music to movies
- Surf the Internet
- Play video games
- Send instant messages
- Shoot and share photographs
- Use Global Positioning Systems (GPS)
- Engage in mobile computing
- Use video calling

It has also been alleged that Canadians don't have 3G services, yet many of the services cited above are 3G-based. TELUS already provides EVDO service to almost 100% of its subscribers in Alberta and will have EVDO coverage to virtually all population centers in B.C. by EOY 2007. Moreover, as set out in the QSI research[26] submitted by Bell, 67% of the population now has access to at least one or more 3G service and these services are being upgraded to EVDO REV A for CDMA carriers and HSDPA for Rogers. In June TELUS announced the availability of EVDO REV A service in Southern Ontario, Montreal and Winnipeg, exemplifying the fact that TELUS is constantly extending and upgrading its facilities-based footprint throughout Canada.

[26] Bell Submission, *supra* note 2.

For TELUS, 3G technology has allowed us to launch the Spark line of products, including mobile TV, music library, music downloads and satellite radio at competitive rates. For instance Spark provides an unlimited music library service for only $20 a month. EVDO also allowed us to partner with U.S.-based Amp'd Mobile to bring advanced mobile entertainment and information to a younger demographic. The Amp'd Mobile service is every bit as innovative and cutting edge as anything Quebecor claims consumers need. TELUS is making it available today.

7) "Incumbents Have Too Much Spectrum Already"

Some would-be competitors have suggested that the incumbent wireless carriers have enough spectrum already and therefore don't really need to participate in the spectrum auction or should be constrained by some fashion in obtaining AWS spectrum. As suggested above, government should seriously consider why it should restrict TELUS's strategy to become an alternative content distributor in order to favor cable and satellite providers that already hold a dominant position in content distribution.

Arguments that suggest that TELUS does not need additional spectrum to offer entertainment services should be seen as the facile and self-serving arguments they are. These statements seek to throw up a smoke screen and obscure what is clear; namely that the AWS band is a new band that will create more competition and choice in the content space. New, innovative technology and services will be developed for this band that may or may not be available in the current PCS band.

Parties argue that relative to U.S. carriers Canadian carriers have enough, although they grudgingly note that TELUS has less than its major competitors. What these simplistic arguments ignore is that broadband video is a brand new game. To suggest that TELUS has enough to support future video demand is to employ voice traffic statistics to predict video and broadband consumption. The only truth that seems to prevail in the new broadband worlds is that video rules.[27]

AWS is about content not simply voice. However it would clearly be in cable's interest to ensure wireless carriers never have enough capacity to seriously compete in the broadcast and high speed internet business. Government intervention such as that requested by the cable industry not only provides for a regulated bundling advantage but provides cable with the perfect blocking strategy to limit competition in their core business.

8) "Foreign Ownership Rules Limit Competition"

Some would-be participants have argued that the auction process is flawed because of Canada's current foreign ownership rules. This logic is shaky at best as the rules are still the same for all eligible spectrum auction participants. We all operate under the same economic conditions.

That being said, TELUS has never taken a position against liberalization of foreign ownership. However we also anticipate that the current rules may not change in the current political environment. The Department has already indicated that the ownership rules are not part of this consultation. Therefore the auction should proceed under this assumption, without interventions to reflect foreign ownership one way or another.

For instance, Quebecor has suggested that due to the ownership rules, government must intervene to manage the market. As suggested above, artificially inducing

[27] The explosive growth of service like YouTube and Facebook demonstrate where IP-based networks are headed.

competition, where it might not otherwise arise may only serve to reduce the scale necessary to maintain comparative rates with the U.S. Given issues of scale, entry must be predicated on willingness of investors to take risk under the current rules.

The Competition Bureau proposal to change rules only for wireless is unworkable. The proposal disadvantages integrated Canadian companies that cannot be acquired under same rules. Rules that deliberately disadvantage Canadian companies relative to foreign carriers are problematic. TELUS does not oppose changes to the rules as long as the same rules apply to all. TELUS notes that in any event legally the Bureau's proposal, despite applying to only part of the telecom sector, would still require changes to the Telecommunications Act.

Given the current speculation that foreign ownership rules might be lowered or eliminated, it is likely that a lot of foreign capital and private equity will seek to participate in the spectrum auction in any event, speculating on liberalization of Canadian ownership rules or perhaps motivated by quick flip.

Whatever the case, Canada is behind in licensing AWS spectrum and the auction should not be delayed. The spectrum auction is scheduled for early 2008 and it is unlikely that the foreign ownership rules will change by then. Any discussion of them in the context of this spectrum auction is a diversion. Investors have more than sufficient information, and access to capital, to make the auction a competitive and dynamic event.

3. Auction Terms and Conditions

9) Set-asides/Caps

In its consultation, Industry Canada proposed a set-aside of 30 MHz for discussion purposes. TELUS has submitted that a 30 MHz set-aside will either reduce auction revenues by $200M (taxpayer subsidy) or more and/or raise costs for incumbents by a similar amount. TELUS experts have submitted that the costs of set-asides in the 1996 U.S. was as high as $5.4 billion and over £450 million for the UMTS auction in the U.K.[28] Yet even a 30 MHz set-aside is not enough for would-be entrants who have tended to recommend anywhere from 40 to 60 MHz as a minimum set-aside as well as mandatory resale. Some potential entrants would much rather see TELUS try to achieve its content growth strategy with a maximum 10 MHz. TELUS would suggest to the Department that this helps underscore the problem with regulatory intervention. It is never enough.

Ironically those that demand spectrum set-asides seem more interested in blocking TELUS and competing via resale competition rather than investing in any large scale network deployment. What they advocate is the same strategy of competition through regulation that has epitomized the last 15 to 20 years. The strategy is to build only in the most lucrative markets and use the regulatory process to free ride through arbitrage. Even Quebecor which supports a 50% territorial build out could accomplish its goal merely by concentrating most of its build in Montreal and Quebec city, and reselling the rest of the province.

Interested parties justify some of their claims for spectrum set-asides as necessary to reduce the costs of entry. Yet it is clear the end game is resale at regulated

[28] The Adverse Economic Effects of Spectrum Set-Asides, May 24, 2007, Robert W. Crandall & Allan T. Ingraham, pages 9 &15

rates. Accordingly set-asides coupled with resale not only waste spectrum where there is no intent to build but artificially inflate traffic on incumbent networks.

Parties also call for set-asides on the premise that the incumbents benefited from set-asides in the early days of wireless. However such an analogy uses one fact as a way to obscure reality. When services were launched in the mid 1980's there were no networks to roam on, no resale, no towers, no cell phones, no customers and certainly no monopolies such as cable companies received. Only a piece of paper that granted the right to take a risk in return for a fee.

And the risk was huge. Almost 20 years in the red. Moreover incumbents had no choice to build in order to grow the business. That is a far cry from the block/cream-skim/arbitrage strategy behind set-asides. It is clear that there is no intent to extensively build on the part of potential entrants. Accordingly a 30 MHz set-aside would be significant waste of capacity. Even larger set-asides are simply shameless attempts to completely block incumbent carrier growth strategies.

10) Resale/Roaming

As discussed above, potential entrants don't want spectrum to build. Rather they want to concentrate a build in only the most lucrative markets and arbitrage the rest of the country A regulated competitive advantage is thereby gained, first by critically limiting the ability of incumbents to build to meet exponential growth, resulting from new, innovative bandwidth intensive services such as broadband video and then by forcing them to share capacity at low rates to support cream skimming. Such blatant regulatory gaming provides a clear signal as to how far from the market a regime based on a combination of set-asides and resale really will be. And it represents a strategy that has failed wherever it has been adopted.

Industry Canada did not even raise the idea of resale in the consultation. Rather it focused on the idea that a carrier's customers need a roaming agreement to use their devices outside their home carrier's facilities-based footprint. However it is clear that potential entrants want much more intervention than that.

What is troubling is that many of these parties were not just asking for simple roaming capabilities but rather for discounted access to the entire suite of 3G services currently being offered by the incumbent wireless carriers. That is not the way to create competition or increase investment. It is in fact a disincentive to investment.

As an example under mandatory resale, TELUS could use mandatory resale and roaming to access the Rogers GSM or potentially HSDPA investment without spending a dime in CAPEX. In effect resale could wipe out all past Rogers investment intended to deliver differentiation and gain advantage through risk-taking. We do not support such a policy. Such arrangements must be negotiated on a case-by-case basis to protect past, and encourage future, investments.

Many parties proposed using rates underlying the TELUS/Bell reciprocal peering arrangement as an appropriate rate for resale. That is completely inappropriate. The TELUS/Bell arrangement is just that, a commercially acceptable peering arrangement agreed to by both parties wherein each party brings value to the other. The basis of any commercial arrangement is that compensation is based on the value of the arrangement. That is simply how competition works. Market conditions establish arrangements between competitors not governments.

Any roaming agreement and any resale agreement must be set in the marketplace. Competitor arrangements must reflect value. That is what commercial arrangements demand. This type of regime has served the Canadian wireless industry well and should be continued. Not mandated rates designed to favour one competitor at the expense of the other. Mandated resale is the most destructive measure government could contemplate imposing. To be clear, TELUS notes that the Department did not contemplate this arrangement.

In its submission, Quebecor says that Videotron wants commercial rates for roaming and resale and that sounds reasonable except they want those rates to be subject to dispute resolution by the Competition Bureau. This proposal amounts to little more than regulated rates in disguise, with all the regulatory gaming that goes with such a regime. At its heart, resale is all about regulated discounts, arbitrage and gaming. The more attractive the arbitrage, the less incentive to build and the more likely cream skimming will occur.

Industry Canada has consistently avoided this quagmire in past consultations by supporting commercial arrangements between participants in the Canadian wireless industry. This is more than can be said for the cable companies who have never arrived at an arrangement that allow a competitor to use their broadcast distribution network in order to offer video distribution.

The TELUS/Bell reciprocal agreement, TELUS/MTS arrangements and numerous MVNO agreements are proof positive that wireless industry participants do make commercially acceptable arrangements including for peering, roaming and resale. All arrangements are commercially arrived at and likely differ significantly based on what has been negotiated. This approach reflects how competitive markets operate.

11) Unbundling

TELUS submits that when the Commission examined the unbundling issue in the Local Competition ruling (Decision 97-8) the Commission got it right when it developed a definition of an essential facility based on sound economics and competition law principles. TELUS anticipates that the Commission will continue to be guided by its conclusions in Decision 97-8 and that going forward, the Commission will limit mandated wireline unbundling to only those facilities that are truly essential – that is to say those that are (1) monopoly controlled, (2) required by competitors to provide services, and (3) not economically or technically duplicable. Limiting unbundling to only those facilities that meet these criteria is good policy and establishes the correct incentives for infrastructure investment and innovation. TELUS strongly recommends that Industry Canada be guided by the Commission's recognized expertise and work in this area.

Including regional carriers, there are separate and stand alone 800 MHz and PCS networks across Canada as well as an ESMR network and an evolving wireless broadband/WiMax network at 2.5 GHz. More facilities are planned at 700 MHz. TELUS notes that this number of competitive networks does not meet the definition of essential facilities and therefore these should not be unbundled. Again TELUS notes the Department has not contemplated or proposed such a draconian intervention.

If there is a lesson to be learned from the North American experience over the last 10 years, it is that forced sharing has promoted uneconomic entry and resulted in the destruction of billions of dollars in capital e.g., Microcell, Metronet, Group Telecom, C1, RipTide, Covad, etc. The government has repeatedly called for greater reliance on market forces. Calls for unbundling of mobile networks are completely out of step with a market forces-based approach and would result in heavy handed, detailed re-regulation of an industry sector that has consistently benefited from a light regulatory regime.

12) Tower Sharing

TELUS supports tower sharing when both parties mutually agree on commercially acceptable terms and rates. It has to work this way because each tower/rooftop arrangement is unique. A mandated tower sharing regime that does not include commercially acceptable terms and rates amounts to little more than expropriation of an incumbent's assets and coverage advantage obtained by risk and capital investment. Such a regime penalizes those that invest in facilities relative to those that either don't or haven't.

A move to attempt to regulate tower access terms and rates would drag Industry Canada into a morass of disputes, minutiae, and heavy handed regulation that should be avoided at all costs. There is no simple model for tower sharing or co-location: each tower is different. Getting the rules of general application wrong means endless disputes with Industry Canada as the referee. Industry Canada has avoided this in the past by opting for market-based arrangements. TELUS recommends they should continue to do so.

13) AWS Band Plan

Industry Canada has proposed to deviate from common practice to harmonize the AWS band plan with the U.S. in order to create a 30 MHz set-aside. This is a classic example of what occurs when government tries to intervene in markets to adjust competitive balance. Unintended distortions result. Simply put, harmonizing band plans has always proven to be good spectrum policy. It should not be now traded off to achieve other artificial ends.

Harmonizing the band plan for the 1710-1755 MHz and 2110-2155 MHz bands with that of the U.S. is good public policy and very much in the public interest. A harmonized band plan will enable Canadian consumers and Canadian carriers to take advantage of handsets, base stations and other network components designed and manufactured for a market ten times the size of the Canadian market. A harmonized band plan also reduces cross border coordination difficulties and eliminates potential cross border roaming issues. Reliance on a made-in-Canada band plan forces a requirement for more expensive and slower to market frequency agile equipment for no apparent gain to Canadians and should be avoided.

There was nothing placed on the public record in the initial comment round that indicated any benefit of adopting a made-in-Canada band plan. TELUS repeats our strong recommendation that Canada adopt a band plan identical with that of the U.S. in the AWS bands.

14) Licence Tiers for AWS Spectrum

TELUS continues to believe that regional Tier 2 licence blocks best balance a need for sufficient scale with the potential for regional differentiation. TELUS strongly recommends that the AWS spectrum be auctioned with only Tier 2 spectrum licences and that the licence terms be fifteen years with a high expectation of renewal. Regional licences ensure competitive intensity, allow auction participants to pursue either a national or regional strategy and allow participants to achieve some degree of scale without having to aggregate a large number of smaller Tier 3 or Tier 4 licences.

Tier 2 licensing coupled with a band plan harmonized with that of the U.S. would also allow the greatest degree of flexibility as auction participants could pursue a

20 or 30 MHz play on either a region by region basis or alternatively on a national basis.

In Canada minimum scale is critical to promoting sustainable competition. Canada is already at a scale advantage relative to most other developed countries. Creating a number of smaller players in a capital intensive industry simply does not contribute to competitiveness or productivity. Moreover it also does not support the scale required for Canadian content-based services.

Moreover the smaller the licence area won by a new entrant, the greater the reliance on someone else's network to compete. Tier 2 licence areas allow an incumbent or new entrant a greater degree of scale and are spectrally much more efficient than Tier 3 or Tier 4 blocks in a multi-carrier environment.

Industry Canada has examined this issue in detail and concluded that Tier 2 licensing was the most appropriate for mobile wireless services. TELUS strongly believes the logic still holds true.

15) Licence Term

In DGTPTP-002-07 Industry Canada proposed a ten-year licence term and further suggested that after eight years of the initial term and any subsequent terms the licensee could apply for a licence renewal for an additional licence term of up to ten years. TELUS, joined by almost every party commenting on the licence term question, recommended that for greater business certainty for the licensee, to align and harmonize with the FCC that Industry Canada auction the licences with a fifteen year term and further that Industry Canada restore the high expectation of renewal that its own policies call for.

16) Up Front vs. Deferred Payments

Some parties have called for auction payments to be deferred over lengthy periods for successful bidders. TELUS views this as a bad idea. Deferred payments incent a "speculate and flip" approach and thereby inflate auction pricing for all auction participants. Some of the parties calling for deferred payments do so because they say up front payments constitute a financial burden. This ignores the reality that mobile wireless infrastructure investment is a large scale endeavour, whether the network is a national one or one that is regionally-based. Allowing deferred auction payments very much increases the chances of parties over-bidding in the auction, failing to build out and then a year later seeking bankruptcy protection and putting their (still unpaid) spectrum assets up for sale. It may be worth restating the truism: "if you don't have scale to pay for spectrum, you don't have scale to compete."

TELUS notes there is ample evidence to suggest that the worst thing you can do in an auction is defer payment for licences. The more upfront payment you defer the more price is inflated by speculators looking to flip the licence. With the potential removal of foreign ownership rules in the future there is every likelihood spectrum could be artificially overpriced and left unused for a prolonged period. The example of Next Wave in the U.S. PCS auction shows conclusively how costly a deferred payment regime can be.

4. <u>Conclusion</u>

The degree to which an economy actually relies on market forces as opposed to regulation to drive investment and innovation is a key determinant in achieving productivity gains. That is why the Canadian government recently announced a policy to rely on market forces in telecommunications to the greatest extent possible.

Ironically just as Canada begins to move away from regulation in the local phone market in favor of market forces, this consultation has become a debate about whether to allocate spectrum to a certain class of competitor, restrict access to others and to import monopoly-style rules like resale and unbundling into a market already governed by market forces.

Wireless is and has always been competitive by any number of criteria including: declining price, massive investment, changing technologies and strong growth. Accordingly, government must take care not to intervene in the wireless business simply because some argue that Canada is not competitive enough when measured against international benchmarks for pricing and penetration.

TELUS submits that the achievements of the industry should not be dismissed and undermined by measures, such as mandatory resale or spectrum caps, that are intended to affect the existing economic balance in the market in favor of one competitor over another. The imposition of such regulation into the market, just as those that took a risk are reaping rewards, is particularly offensive since it would be intended to assist those carriers that passed on investing in wireless, or exited the market, when the business case was in the red.

TELUS does not fear competition. We continue to invest in high risk ventures today like IPTV and wireless content. But competition must be on a level playing field. Early investors in wireless should not be penalized by unfair measures designed to prohibit them from fully competing in the upcoming spectrum auction.

Spectrum should only be available in an open auction in order that this valuable resource is not squandered on cream skimmers or speculators but rather is put directly in the hands of those companies which will make the most of the resource. Canada's largest cable companies do not require government support to enter the market. Not only do such carriers have internally-generated free cash flow and a large customer base to leverage, they also have access to huge pools of private equity and partnerships with foreign carriers.

Debates about whether emerging content services are "real 3G" obscure the obvious. New mobile TV, satellite radio, mobile computing, mobile music libraries and GPS services are all becoming standard options for Canadian consumers. And AWS spectrum will only increase the capacity necessary to deliver these services with a broadcast quality that challenges existing cable and satellite providers.

To suggest that cable companies need support because they cannot afford a fraction of what TELUS risked in 2001 is a step back to old style intervention intended to "get competition just right". There simply is no basis to justify regulatory intervention as long as prices decline, innovative services continue to roll out, market share is shifting amongst the competitors and the market continues to post strong annual net subscriber numbers. That is clear evidence of a competitive market.