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ISED: Consultation on Updates to the Licensing and Fee Framework for Earth Stations and Space Stations in Canada

I. Introduction

Kepler Communications Inc. ("Kepler") hereby submits these comments in response to the consultation initiated by Innovation, Science and Economic Development Canada ("ISED") with the intent to review the existing licensing and fee framework of Earth and space stations in Canada.[1] The consultation requests the opinion of stakeholders on numerous matters, including changes to licence requirements, changes to the types of licences issued, and a revision of the existing fee regime. The consultation is intended to facilitate innovation for Canadian licensees, as well as align the Canadian licensing regulations with global competitors in order to ensure that Canadian licensees are not competitively disadvantaged.[2]

These policy objectives ostensibly justify the licensing changes presented in the consultation, however these objectives are not applied in a consistent manner across all of ISED's proposals. Several of the suggested changes to the existing regime will, in fact, adversely affect

[1] *Canada Gazette*, Part I, August 2021, *Consultation on Updates to the Licensing and Fee Framework for Earth Stations and Space Stations in Canada*, Notice No. SMSE-009-21 ["Consultation"].

[2] Consultation at ¶ 24.

licensees, stifling innovation in Canada and consequently disincentivizing operators from joining the Canadian satellite industry. Each item presented in the consultation is hereby addressed in turn.

II. Licensing Framework

ISED has drawn attention to the burdensome nature of the existing licensing framework, which has not been significantly updated to reflect the rapid technological advancements that have defined the satellite industry in recent years.[3] The proposed changes to the licensing framework are a commendable step towards the modernization of this essential framework.

Spectrum Licensing for Earth Stations

Q1. a.

Kepler supports ISED's proposal to use spectrum licences to authorize fixed and transportable earth stations and Earth Stations in Motion ("ESIMs") within the Canadian territory. The current practice of requiring one apparatus-based radio licence for each individual antenna or earth station at each site involves an unnecessary complexity for certain deployments, including many of Kepler's.[4] Though borrowing the radio licence framework was clearly convenient when the regulations were first drafted, it is generally dated and unfit for efficient licensing.

[3] Consultation at ¶ 10 ("with the exception of the rules and fees for FSS and BSS satellites…the licensing and fee framework has not been updated in over three decades").

[4] Consultation at ¶ 26.

Today, it is not uncommon for other administrations to use 'blanket' or 'general' licence approaches that pertain to a *device class*, rather than an individual deployment. This reduces overhead for both regulator and licensee, as has been seen with the interim licensing approach for the FSS. This is particularly beneficial for the dynamic operating environments of mobile stations (including ESIMs). Kepler acknowledges that depriving the department of location information for large, fixed stations requiring specific interference consideration may not be in the best interest of operators or regulators, but these assessments should be made on a case-by-case basis.

Q1. b.

Considering the nature of satellite coverage, Kepler agrees that it is necessary to issue spectrum licenses for satellite earth stations on the basis of a Tier 1 service area.[5] Furthermore, for services offered by small satellite platforms (e.g. <100 kg dry satellite mass), it is extremely challenging to fly antennas large enough (and with beams narrow enough) to constrain their signals within the smaller geographies associated with higher Tiers. By adopting a general Tier-1 allocation, any such complications are simply bypassed.

Q1. c.

The proposed set of licence conditions is as expected, and Kepler generally agrees. However, Kepler notes that under condition A7 (Reporting), that "providing detailed calculations and/or conducting site surveys" may be difficult or impractical for ESIM or certain customer-owed stations, given the dynamic transmission environment and the autonomy of private device owners. Though any operator can technically request accurate location information from devices they

[5] Consultation at ¶ 31-32. (Specifically fixed, transportable, and ESIM)

service, such may not be in accordance with either their corporate or customer privacy preferences. In other cases, location information may be available but only approximate. For example, for a given satellite communicating with a mobile station, the satellite may easily identify that Device ID#XYZ is active within its beamwidth, but without requesting GPS information, it may only be able to provide the approximate location denoted by the beam footprint. Therefore, reasonable expectations for reporting requirements for mobile or certain types of customer-facing devices should be taken into consideration.

Earth station spectrum licenses requiring site approval.

Q2. a.

Kepler supports ISED's proposal to introduce earth station spectrum licences for any earth stations that require site approvals as outlined in the consultation.[6]

Q2. b.

Kepler agrees that the current requirements to provide technical information as listed under Annex B are sufficient.[7]

Q2. c.

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[6] Consultation at ¶ 35 ("examples include: earth stations that operate in bands where coordination is required in order to avoid harmful interference with other services sharing the band[…];transportable earth stations; large earth stations that may have a significant frequency impact on the immediate area; stations in frequency bands where deployments are otherwise limited through spectrum policies, such as gateway earth stations").

[7] Consultation at Annex B.

The requirement for licensees to hold licences for entire spectrum blocks would assign unreasonable costs on operators who may only be using small portions of the band.[8] Not only would it result in excessive costs for operators, but it appears to be an arbitrary rule with limited justification. Segments that are easily shareable should not require licensees to pay for the entire segment of band. The imposition of such burdensome costs would stifle innovation by dissuading potential new entrants from accessing the Canadian market.[9]

Further to this, ISED should consider removing the requirement for licensees to acquire technical certification of earth station applications by a person licenced by a provincial association or order of engineers.[10] The requirement presents little value to the application (especially if a review is conducted again by the licence approval offices), , and ultimately is a moot point given that ISED is willing to authorize the deployment of satellites into space without such certification.

Q3. - No comment

Q4. - No comment

Spectrum Licences for Generic Earth Stations.

[8] Consultation at ¶ 40.

[9] RP-008. *Policy Framework for Fixed-Satellite Service (FSS) and Broadcasting-Satellite Service (BSS),* (published June 2017); CPC-26-02, *Licensing of Space Stations.*

[10] Annex B – CPC-2-6-01 Procedure for the Submission of Applications to Licence Fixed Earth Stations and to Approve the Use of Foreign Satellites in Canada.

Q5.

Kepler generally supports ISED's proposal to adopt generic spectrum licences for the authorization of systems of identical fixed earth stations and ESIMs.

Frequency bands where generic spectrum licences will be available

Q6.

ISED listed a set of frequency bands in which they suggest the allowance of generic spectrum licences for identical fixed earth stations and ESIMs.[11] Kepler agrees with all bands suggested, although the decision to allow generic spectrum licenses for these bands ought therefore to be delayed until certain studies, such as those pertaining to the viability of ESIMs in the Ka band, have been carried out.

Q7. - No comment

Additional conditions of licence for generic spectrum licences for ESIMs and for earth stations installed by consumers.

Q8.

[11] Consultation at ¶ 48-60.

Kepler notes that the requirement for applicants to submit the technical information under SRSP-101 is particularly onerous.[12] While the specifications requested by ISED purportedly enable the evaluation of a terminal's potential to cause interference, it is unclear how ISED is mitigating a potential for interference through the enforcement of these requirements. The level of detail requested in SRSP-101 is unreasonable, as it requires information that goes beyond that provided in a manufacturer's datasheet. Barring access to detailed information from manufacturers, the requirements demand that operators conduct in-house or outsourced testing of each different antenna model at sophisticated measurement facilities, adding more financial and scheduling burdens upon the licensee. This may be understandable if an operator were introducing a new, proprietary antenna to the market. But this is excessive for antennas already commercially available on the Canadian market, such as most VSAT type stations. Considering that the majority of terminals used by satellite operators meet such industry standards at a global level, it is unclear what additional benefit ISED is obtaining by requesting detailed specifications which go beyond that provided in a standard manufacturer's data sheet. Moreover, the level of detail required by ISED goes far beyond that required by other administrations. It is precisely these kinds of onerous demonstrations that can be trimmed away to improve licensing efficiency and ease, without increasing risk. Otherwise, they merely contribute to delayed earth station deployments and present barriers to operators intending to serve the Canadian market.

[12] SRSP-101, Technical Requirements for Fixed Earth Stations Operating Above 1 GHz in Space Radiocommunication Services and Earth Stations on board Vessels (ESVs) Operating in the Fixed-Satellite Service; Consultation at ¶ 46.

One key example, requirement number 4.2. of SRSP-101[13] alone requires extensive testing either on the part of the operator, or with the cooperation of multiple suppliers. Many operators do not have the capability to carry out such testing in-house, and the coordination needed to carry out the requisite supplier cooperation can take an exorbitant amount of time.[14]

Q9. - No Comment

Q10. - No comment

[13] Power stability for space radiocommunication services ("for each earth station, the power output level of the amplifier shall remain within ± dB of its nominal setting").

[14] CPC-2-6-01, *Procedure for the Submission of Applications to Licence Fixed Earth Stations and to Approve the Use of Foreign Satellites in Canada*,(Published 2002).

Frequency bands where generic spectrum licences will be available

Q11.

ISED has sought comment on proposals relating to authorizations of FSS feeder link spectrum used by MSS satellites. Kepler supports the proposal to introduce spectrum licensing, replacing the existing radio licences.

Q12.

Kepler does not view any clear benefit from ISED's suggestion to require MSS satellite operators to comply with the rules regarding minimum holdings for FSS feeder link spectrum.[15] The existing requirement to hold full sub-bands of spectrum generally imposes excessive costs for operators who are likely never to use the entire sub-band of spectrum.[16] Suggesting, therefore, that this rule be extended to MSS operators is both lacking in foresight and misguided. Operation would quickly become infeasible for operators who only require small blocks of bands, resulting in the deterrence of potential newcomers to the Canadian satellite market. Not only this, but this requirement is also impractical, as it would impede sharing in these bands. ISED should, therefore, not introduce this requirement to spectrum licences. On the contrary, ISED should instead aim to promote competition within the Canadian market, focusing specifically on reducing barriers to entry for new operators.

Changes to spectrum licences for MSS space stations

[15] Consultation at ¶74.

[16] Radio Systems Policy RP-008, *Policy Framework for Fixed-Satellite Service (FSS) and Broadcasting-Satellite Service (BSS)*, Appendix A.

Q13.

ISED is proposing to replace the existing process of issuing approvals-in-principle with spectrum licences, making the fees payable when satellites are in operation. Kepler supports this proposal, including the added certainty derived from obtaining a spectrum licence for a 20-year term. However, Kepler is doubtful as to the reasoning behind the suggestion to issue separate spectrum licences for MSS satellites and earth stations.[17] Requiring more licenses and additional separate applications increases the workload on both operators and regulators and lengthens the time to approval. The exact benefit of aligning the MSS licensing regime with that of other satellite services is also unclear. For simplicity and conciseness, it is better to maintain the existing framework under which MSS spectrum licences include the authority to operate both earth and space stations under one single licence.[18]

Furthermore, an NGSO operator that is deploying its constellation over an extended period of time should not be required to pay the same fee as a GSO operator that is capable of covering the entirety of Canada at all times with the launch of one satellite. GSO satellites are designed to provide a complete service with a single satellite, and can begin generating full revenue at approximately the same moment they are charged their first license fee. For most constellation systems, this is completely impossible. Launches and deployments for large NGSO constellations are significantly more complex than for GSO, and often full revenue generation capability is not

[17] Consultation at ¶ 77.

[18] Radio Systems Policy RP-007, *Policy Framework for the Provision of Mobile Satellite Service Via Regional and Global Satellite Systems in the Canadian Market* (Published March, 1999).

possible until the entire system is in orbit and operational. In this instance, there is an unequal burden on NGSO deployments due to the nature of their piecewise deployment characteristics.

Types of Licences Required

Q14.

The issuance of licences in Canada has always been conditional on successful coordination and compliance with technical rules, with separate earth and space station licences issued.[19] ISED has proposed that this approach remains the same with the proposed changes to the required licences. This would result in three separate licences respectively for generic earth stations, site-approved earth stations and space stations, each with their own separate fee. The trade-off ISED must consider is the added administrative burden for operators and themselves to respectively complete and assess multiple separate licenses for what is nearly always an integrated 'space system'. The Department should assess whether it would be simpler to solely require a 'space system' licence that includes a holistic view of the space and earth stations involved within a single satellite service ecosystem. This could improve clarity for understanding the relationships between ITU filings, satellites in orbit, assignment of frequencies, and the extent of communications to earth stations of all types, including generic fixed user terminals, mobile devices and ESIMs, gateways/feeders, and TT&C stations.

[19] Consultation at ¶ 79.

III. Additional Comments

Licensing Jurisdictions

In addition to the questions already addressed, Kepler also suggests that ISED consider enabling operators to license constellations across multiple jurisdictions. At present, while not prohibited by any policy or legislation, ISED does not allow operators to licence satellites within a constellation with another administration outside of Canada. However, NGSO operators ought to be provided with the opportunity to ensure that their international presence is well-protected through the representation of administrations. This would serve as another mechanism facilitating the harmonization of international regulations in the interest of operators in order to promote ongoing innovation in the commercial satellite sector.

Neither the existing licensing framework, nor the proposed changes from this consultation have any rule that would prohibit ISED from supporting Kepler's suggestion of allowing operators to licence their constellations under more than one administration. The merit of this proposal is further exemplified by the technical feasibility established by the technical requirements that ISED already requests prior to the issuance of a licence. Moreover, the administrative aspects of this proposal would not be complicated, merely depending on an agreement between the respective administrations, facilitated by the constellation operator, to take "ownership" of a certain subset of satellites within an operator's constellation.

The ability of GSO operators to license satellites across several administrations is already considered by ISED. Effectively ISED has no ability to limit a GSO operator from licensing one of its satellites through Canada and second through an alternate administration. A hypothetical

GSO operator that is licensed through Canada and Brazil, with two independent ITU filings, garners regulatory support from two administrations – strengthening its overall business. Despite the above scenario being a real example of the current Canadian landscape, the same "leniency" has not been allotted to NGSO operators, despite their very nature requiring deeper international regulatory support. A refusal to provide this leniency to NGSO operators simply encourages potential Canadian service providers to seek space station licenses elsewhere.

IV. Fee Regime

The consultation includes proposals to alter the existing fee regime, citing the objective to "promote more efficient use of the radio spectrum".[20] ISED also highlights core policy objectives that guide the proposed changes, including the encouragement of innovation, the setting of fees that are "clear, predictable and relatively easy to adjust to reflect changing markets and technological advances," and that "reflect the relative value and use of different spectrum bands".[21] However, some proposals that ISED sets forth fail to adhere to these objectives. Specifically, while Kepler agrees that shifting to a consumption-based model is advantageous in its predictability, some of the fee rates proposed for specific licences are contentious, as outlined below.[22]

[20] Consultation at ¶ 87.

[21] Consultation at ¶ 84.

[22] Consultation at ¶ 85. (Suggesting a consumption based model established by a $/MHz system)

MSS Earth Station Spectrum Licences

Q17.

While Kepler commends ISED in its intentions to modernize and simplify the outdated MSS fee process, the analysis leading to the decision to allocate fees at $1500/MHz below 3 GHz, and $5/MHz above 3 GHz is inherently flawed.[23] Despite acknowledging that MSS services have significantly evolved since the current fees were established,[24] ISED nonetheless maintains the opinion that the MSS fees ought to reflect the supposed value of spectrum at lower frequency bands.[25] On the contrary, established mobile operators are increasingly looking to higher frequencies in order to garner more spectrum and bandwidth. A new entrant seeking to operate in the more accessible, lower frequencies would arbitrarily be punished by ISED's proposed fee structure. The fee "cliff" proposed creates an excessively large disparity in the fees which would be paid by operators above or below an arbitrary threshold of 3 GHz. This is a direct contradiction of ISED's objective to set fees that accurately reflect the relative value and use of different spectrum bands, as the new policy would firmly block any new entrants seeking to operate below 3 GHz, and incentivizing further hoarding by the large incumbents.[26] Moreover, it is misguided to put an excessively high blanket fee on MSS spectrum based on an evaluation of the nature of past

[23] Consultation at ¶97; Canada Gazette, *Radio Authorization Fees for Mobile Satellite Services Using Radio Spectrum Above 1 GHz*, Notice No. DGRB-009-99 (Published 1999)*; Radio Authorization Fees for Mobile Satellite Services Using Radio Spectrum Below 1 GHz,* Notice No. DGRB-001-97 (Published 1997).

[24] Consultation at ¶ 99.

[25] Consultation at ¶ 99.

[26] Consultation at ¶ 84.

MSS operations. This is especially pertinent considering the explicit acknowledgment that the development of new technologies is the driving force behind the reassessment of these fees, making it counter-intuitive to base the analysis on old applications. ISED ought, therefore, to consider assigning the fees according to service offering instead, distinguishing between the different applications of spectrum. This would enable ISED to assign fees that reflect the use of the bands, ensuring that services intended to be low-cost, such as IoT, remain so. It would also be a valuable method of ensuring that certain MSS operators do not hoard spectrum.

Q18.

Kepler strongly supports the proposal to assign spectrum licences for MSS earth stations based on the maximum amount of spectrum that a system is *capable* of using.[27] This would remove a significant financial burden for narrowband MSS operations and would no longer unfairly punish systems capable of dynamically assigning spectrum within a range – a trait which benefits spectrum sharing.

Space Station Spectrum Licences

Q.19.

Kepler agrees with ISED that the introduction of a consumption-based model for all new spectrum licences proposed in this consultation would result in greater certainty and

[27] Consultation at ¶ 101.

administrability.[28] However, the benefit that predictability provides is significantly diminished by the suggested fee amounts. Although the intention to modify the MSS satellite spectrum licence fee to $124.84 / MHz is a significant and agreeable decrease from the existing rate of $540 / 100 kHz, the danger remains that ISED is not competitive with global markets.[29] Having notably higher fees than other administrations following a consumption-based fee model results in a diminished capacity to promote innovation in Canada, acting as a deterrent to operators who are seeking to apply for a licence in Canada. This deterrent effect becomes especially potent when combined with ISED's lengthy processing periods, particularly with the issuance of developmental licences. As it currently stands, there is far more incentive for operators to shift their sights from Canada to jurisdictions in which they can pay less and be guaranteed a shorter processing period to acquire an identical license.

Q.20.

Kepler agrees with ISED that it is necessary to shift towards a fee system which appropriately reflects the time required for constellation development and deployment. In issuing the proposal to introduce a two-step system for the imposition of fees, ISED acknowledged that "for some constellations, the ability to provide a commercial service and generate significant revenue will require a critical mass of satellites to be launched and operational, which can take

[28] Consultation at ¶ 105- 109.

[29] DGRB-009-99, *Radio authorization Fees for Mobile Satellite Services Using Radio Spectrum Above 1 GHz*.

time depending on manufacturing and launch schedules."[30] The first fee step proposed by ISED is set at 50 percent of the second fee step, which would be implemented at the deadline for the first deployment milestone, which typically falls on year 6.[31] Kepler suggests, however, that rather than set the first fee at 50%, ISED take a more tiered approach which more appropriately reflects an operator's capacity to deploy a system, independent of meaningful revenue generation. A more incremental approach to assigning fees would ensure the continued investment in the deployment of these constellations. This could be achieved by assigning a specific fee to each satellite launched, with operators liable to pay as soon as the satellite is deployed. The second fee step would require the full payment once an operator has achieved a pre-determined percentage of deployment.

If ISED does not adopt a more prolonged approach to the requisite payment of fees, Kepler suggests that ISED consider maintaining the system of issuing developmental licences and merely altering the eligibility requirements pertaining to revenue-generation.[32] ISED should also re-evaluate its conception of revenue-generation relating to the issuance of developmental licences. These should instead pertain to the aforementioned 'critical mass' needed for commercial operations to be possible. This can be set on a case-by-case basis at the point of license issue. Once this minimum amount is determined, operators will be better positioned to understand their own eligibility for developmental licenses and the payment of fees.

[30] id.

[31] Consultation at ¶ 115.

[32] As discussed in greater detail under Question 24.

V. Developmental spectrum licences for earth stations and space stations

Q.21.

The consultation has introduced a number of proposals for the issuance of developmental licences, emphasizing the benefit that such licences provide in light of the increasing availability and development of satellite technology.[33] In particular, ISED identified a gap in the licensing process, in which there is no applicable developmental licence fee for either spectrum licences or space stations.[34] Kepler supports ISED's proposals, in theory, to issue developmental earth station and space station spectrum licences. Kepler also agrees that it is reasonable for ISED to apply these fees whenever the application of the consumption-based fee model would result in a fee lower that those amounts.

Q.22.- No comment

Q.23.

Despite supporting the introduction of annual licence fees for earth and space stations, Kepler opposes ISED's proposals to introduce developmental spectrum licence fees for earth stations and space stations.[35] ISED does not provide a clear rationale for the introduction of such a fee, aside from identifying that such a fee does not currently exist.

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[33] Consultation at ¶119-122.

[34] *Radiocommunication Regulations*, Part III, Schedule III, § 60(3) and § 62(2)(a).

[35] ISED has suggested a flat rate of $160 for earth stations and $300 for space stations.

Q.24.

ISED has sought comment on "limits to eligibility requirements for developmental spectrum licences, limits on frequency bands where developmental licences could be issued, and conditions of licence that could be applied."[36] The consultation highlighted a vital flaw in the issuance of developmental licenses, identifying that "…with large NGSO constellation development, some revenue may be generated from the first satellites as a means of funding the continued development and deployment of the constellation, making the company ineligible for a developmental licence."[37] The main issue pertains to the ambiguity of the meaning of 'revenue generation'. Without a clear definition, it is apparent that anything above zero dollars would constitute revenue. However, this is neither practical nor reasonable to enforce on companies which are in the process of developing their constellation, using these licenses to experiment with different services in order to determine the best option for commercial use. If ISED does maintain the language obliging anybody generating revenue to seek a different license, they ought to provide a minimum amount that constitutes revenue, under which a company is still allowed to operate under a developmental license. This would encourage innovation rather than pushing new operators out of the market through prohibitive developmental license fees. As an alternative, ISED ought to consider altering the language to 'profit-generating', as currently there are agreements between operators and customers that require payments for cost-recovery purposes, but without the intention to generate a profit. Such agreements are necessary for small-operators

[36] Consultation at ¶ 122.

[37] Consultation at ¶ 112.

to acquire customers by performing proof-of-concept demonstrations in order to develop their satellite services. By adjusting the language to 'profit-generating', it would ensure that the purpose of acquiring a developmental license is honoured whilst still enabling operators to optimize the development of their services. In order to ensure that this requirement is respected in good faith, ISED should include a requirement for developmental licence applicants to provide an explanation of cost-recovery activities between parties in the developmental process, or a certification that the operations are conducted on a strictly non-profit basis.

VI. Administrative Aspects

Q.25. - No comment

Short-Duration Licences

Q. 26.

The consultation highlights the intention to issue short-duration licences for periods of less than one year.[38] Kepler agrees with this proposal to properly define short-duration licenses. However, any long application service standards could degrade the usefulness of such "accelerated" licensing systems.

Q.27.

Service Standards and Remissions

The consultation outlined the intended service standards for the issuance of licensing decisions for satellite-related spectrum licences.[39] The proposed timeframes of 49 days are shorter than the current service standard for ISED to process applications, which Kepler commends.[40] That said, it is still uncompetitive with other administrations. To "ensure that Canadian licensees

[38] Consultation at ¶128.

[39] ISED proposed a standard of 126 days for space stations, generic earth stations and site-approved earth stations, and a standard of 49 days for additional sites under an existing site-approved earth station license.

[40] The current service standard for space stations and mobile earth stations is 130 days, and for fixed and transportable applications is 49 days.

are not significantly disadvantaged compared with their global competitors," it is vital that ISED remains on par with the service standards of said competitors.[41]

ISED ought to consider introducing a system by which an application is superficially reviewed within a short period of time with the sole objective of confirming that the applicant has provided all necessary and required information. This would protect the valuable time of both the applicant and ISED, by ensuring that the former is able to acquire a licence as efficiently as possible, and that the latter is able to effectively use the time to focus on the technical merits of the licence application rather than issue delays attributable to an applicant's clerical errors.

One notable absence in the proposed service standards is developmental licences. ISED should guarantee a degree of certainty for operators seeking developmental licences. This is especially appropriate considering, once again, the objectives of the consultation; an indeterminate amount of time set for the issuance of such licences prevents participants in the Canadian market from developing technologies. Not only does this constrain progress and development, but operators may seek other jurisdictions which present more certainty. ISED should also guarantee a service standard for resolving coordination disputes between incumbent operators and those seeking the developmental license. Failure to do so may leave new licensees in a never-ending holding pattern if incumbent should refuse to coordinate.

[41] Consultation at ¶ 24.

VII. Conclusion

Kepler appreciates the opportunity that ISED has provided operators to comment on the proposed changes to the licensing and fee regime. It is evident that ISED's approach to this consultation has been largely advised by the intention to develop a flexible framework that is able to adapt to technological advancements.[42] While Kepler agrees with many suggestions presented in the consultation, there are some areas which require further analysis and detail. It is essential that ISED establishes an environment that cultivates innovation whilst reducing the barriers that new entrants to the Canadian market may face. There are some areas of the consultation, particularly proposed changes to the fee framework, that do not adequately achieve this.

Respectfully Submitted,

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[42] New Spectrum Policy Framework for Canada, Notice No. DGTP-001-07 (Published June, 2007).