

**BEFORE THE CANADIAN RADIO-TELEVISION
AND TELECOMMUNICATIONS COMMISSION**

**TELECOM NOTICE OF CONSULTATION CRTC 2011-302
REVIEW OF PRICE CAP REGULATORY FRAMEWORK FOR
NORTHWESTEL INC. AND RELATED MATTERS**

INITIAL EVIDENCE OF NORTHWESTEL

13 JUNE, 2011

EXECUTIVE SUMMARY

Northwestel's operating environment is comprised of very high costs, vast distances, harsh climate, extremely low population density, distinct cultural diversity and is an operating territory unlike any other in Canada. Given the unique characteristics, the Commission has continuously determined over many years that Northwestel requires regulatory frameworks that accommodate these distinct conditions.

Basket Structure

While the current basket structure remains appropriate, Northwestel is proposing one change to the assignment of services and two changes to the basket price cap constraints. First, the Company proposes to assign optional features to the Uncapped basket; secondly, to revise the Basket constraint on the Other Capped Basket to be aligned with the Industry standard of Inflation, and be more reasonably suited to the conditions for services within that Basket; and finally to revise the Basket price constraint on Residential Access to Inflation, beginning on June 1, 2014.

Northwestel submits that the chain weighted GDP-PI remains appropriate as the measure of inflation for the next price cap period as used in both the subsidy calculation as well as the price caps constraints, where applicable. This national measure is the most appropriate publicly reported, verifiable statistic that measures the rate of inflation experienced broadly across the economy.

Given the high cost environment with limited economies of scale, and that the Company's derived productivity offset is negative, the Company submits that an implied productivity offset is no longer appropriate. This is consistent with the recent determination of the Commission in the Basic Service Objective (BSO) proceeding that it is no longer appropriate to include a productivity offset factor in the calculation of the subsidy requirement.

Rates

Proposed rate changes include a modest \$2 rate increase to residential and business network access service. Northwestel submits that the proposed rate increases are a reasonable balance between moving rates closer to costs, minimizing the subsidy requirement from the National Contribution Fund (NCF), and continuing to align with rates for similar services elsewhere in Canada.

Northwestel notes that its residential access rates have been fixed since January 1, 2007 at \$31.33 per month, and the proposed rate results in a 1.2% increase on average per year since January 1, 2007, which is less than inflation (GDP-PI) of approximately 2.1% per year.

The Company proposes to partially offset the Business Access rate increase with a proposed reduction to Teleconferencing Service. Northwestel submits that this rate restructuring is an important step to removing an unsustainable implicit cross-subsidy, and moving rates closer to cost.

Cost-based Subsidy Requirement

The extent of uneconomic areas relative to Northwestel's total operating territory is greater than any other ILEC. The challenge of continuing to provide Canadians living in remote Northern communities with access to comparable services to those available in other regions of the country continues to rely on a balance of reasonable rates, sustainable sources of implicit cross-subsidies, and access to the National subsidy mechanism.

With the evolution of IP technologies and competitive pressures, risks to this delicate balance are now materializing. Advancements of IP technologies and networks, including the increased penetration of broadband access, are displacing traditional legacy services (e.g. long distance and digital private line service), and more importantly are eroding critical sources of internal cross-subsidies.

Furthermore, the creation of a subsidized duplicate network in the communities served by satellite – an area that is largely uneconomic to serve for one Carrier, let alone two, has resulted in further erosion of internal cross-subsidies.

Recovery of high cost satellite toll connect links through a cost-based average CAT rate is no longer sustainable. The cost of satellite toll links are approximately **nine times** higher than the cost of terrestrial toll connect links. It is evident that minutes to/from our larger centres are cross-subsidizing traffic to these remote satellite communities. While this model has worked in the past, with the current evolution of IP technologies, the reliance on this internal cross-subsidy is no longer sustainable.

Given that satellite links are an extension of the local network, the Company submits that it is appropriate to assign the portion of the high cost satellite links used by residential consumers, to the access network, and to add the costs accordingly to the residential Public Exchange Services (PES) Phase II Cost Study and the subsidy requirement calculation for Band H1.

While interconnection rates would still remain significantly higher than those that exist in southern Canada, the cost based CAT will be reduced from \$0.0415 to \$0.029, a 30% reduction.

Service Improvement Plan

The BSO for the North was modified to exclude the provision of enhanced calling features in a number of communities. The Company contends that the social and safety benefits of call display make necessary the provisioning of enhanced calling features throughout the North. This would help ensure the following objectives of the Telecommunications Act (the Act) are accomplished: (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; and (h) to respond to the economic and social requirements of users of telecommunications services; and (i) to contribute to the protection of the privacy

of persons. As a result, Northwestel proposes to include the investment in enhanced calling features, particularly call display, in all remaining 29 unserved communities, as an additional SIP program.

In addition, Northwestel is proposing an additional SIP program to replace the SR500 Access System in the Upper Halfway River region of Northern B.C. The Company provides service in the Upper Halfway River area of Northern British Columbia with a wireless access network that no longer complies with Industry Canada Spectrum Utilization Policy, and many of the network components in this network are manufacturer discontinued. The installation of this original network was uneconomic and the Company received up-front government subsidies for the initial installation. As the high cost/low density nature of this region has not changed, the replacement of this network is also uneconomic and requires some form of subsidy.

The Company proposes to recover the costs associated with this new SIP program from the National Contribution Fund, consistent with the methodology approved for SIP I.

Total Annual Subsidy Requirement

The role of the National Contribution Fund is of far greater importance to the North – and is an important mechanism to ensure that all Canadians have access to high quality services at reasonable rates. Northwestel's proposed total annual subsidy requirement of \$25.6M ensures that even those living in the most remote regions of our country continue to have access to quality services enjoyed by the rest of Canada.

Local Competition

With regard to the issue of facilities-based local competition, it is important to note that, to date, no competitive local exchange carrier has approached the Company seeking local network interconnection. This should not come as a surprise given that the vast majority of competitor retail lines in southern Canada

are located in the major centres. In addition to no demand for local network interconnection, Northwestel has identified a number of significant network requirements to implementing the Commission's model for Competitive Local Exchange Carriers.

The Company submits that given the significant costs and limited demand for facilities based local competition, the resale model continues to be appropriate for the North. Resale of Northwestel's retail services allows competitors to incorporate local service in a value-added bundle for customers – extending to customers the benefits of competitive innovations in value-added services and also allows national competitors to serve their national customers in the North. Furthermore, cellular telephone service also provides an effective and efficient means to provide choice to both residential customers and businesses in the North.

Length of Framework

The Company submits that a 4-year timeframe is reasonable for the next Price Cap Framework.

SECTION 1.0 INTRODUCTION

1. In accordance with the procedures outlined in Telecom Notice of Consultation CRTC 2011-302 (the Notice of Consultation), Northwestel files its evidence and response to the Commission's interrogatories regarding the Price Caps Framework that should go into effect at the end of the current Price Caps period. Northwestel submits that Price Caps regulation was first introduced in the serving area of Northwestel in February, 2007 and now, five years later, Northwestel appreciates the opportunity to review the components of the Framework as outlined in the Notice of Consultation. These components include; the basket structure and pricing constraints, residential access rates, restructuring of

business rates, the subsidy mechanism, a review of local competition and the length of the next Price Caps Framework.

2. Northwestel's Evidence is organized as follows:

- Section 1.0 – Introduction
- Section 2.0 – Northwestel's Unique Operating Environment
- Section 3.0 – Price Caps Structure
 - Section 3.1 – Assignment of Services
 - Section 3.2 – Price Caps Constraints
 - Section 3.3 – Appropriate Inflation Factor
 - Section 3.4 – Productivity Factor
 - Section 3.5 – Appropriate Application of Exogenous Factor
- Section 4.0 – Access Rate Proposals
 - Section 4.1 – Residential Access Rate Proposal
 - Section 4.2 – Business Access Rate Restructuring
- Section 5.0 – Subsidy Requirement
 - Section 5.1 – High Cost Satellite Toll Connect Links
 - Section 5.2 – Residential PES Band H1
 - Section 5.3 – Service Improvement Program 1
 - Section 5.4 – A New Service Improvement Plan – SIP II
 - Section 5.5 – Subsidy Requirement 2012 and Going Forward
- Section 6.0 – Local Competition
- Section 7.0 – Length of the Next Price Cap Regime
- Section 8.0 – Conclusion
- Appendices
 - Appendix 1 – Northwestel Operating Area Map
 - Appendix 2 – Population Density Map of Canada
 - Appendix 3 Illustrations
 - a. Illustration – Grise Fiord, Nunavut
 - b. Illustration – Microwave Site Being Re-fueled – Haskins, BC
 - c. Illustration – Microwave Site – Parsons, NWT

- d. Illustration – Microwave Site - New Facilities to Meet New Environmental Regulations, Haskins, BC
- e. Illustration – Microwave Site – Fraser, B.
- Appendix 4 – Subsidy Requirement
 - a. Cross-subsidization of Toll Connect Costs
 - b. Phase 2 Costs – Toll Connect Facilities
 - c. Proposed Carrier Access Tariff (CAT)
 - d. Phase 2 Costs – Residential Primary Exchange Service (PES) – Band H1
 - e. Res PES Costs – 2006, 2010
 - f. Res PES Subsidy Requirement
 - g. SIP I Subsidy Requirement
 - h. SIP II Subsidy Requirement
 - i. Total Estimated Annual Subsidy Requirement
- Appendix 5 – Letters Requesting Call Display
 - Attached – Response to Interrogatories

SECTION 2.0 NORTHWESTEL'S UNIQUE OPERATING ENVIRONMENT

3. Northwestel provides telecommunications solutions to a population of 116,000 people, 0.3 % of Canada's population, and to 96 communities in the far North. Northwestel's traditional telecommunications service area is the largest in Canada and comprises an operating area of nearly 4,000,000 square kilometres and includes Yukon, Northwest Territories, Nunavut, northern British Columbia and Fort Fitzgerald, Alberta. The area extends approximately 3,500 kilometres from east to west, spanning four time zones. The Company provides an operating area map as Appendix 1.
4. Northwestel's operating area is distinct from any other in Canada for its extremely low population density, vast distances between communities, extreme climate and distinct cultural diversity. Northwestel provides a density area map

as Appendix 2 that illustrates the very low population density of the North relative to the rest of Canada.

5. Northwestel provides service to 96 communities with a total of 73,600 network access lines, 77% have less than 501 network access lines and 27% have less than 101. The Company's two largest centres, Whitehorse and Yellowknife, are small relative to southern Canada's communities and combined have less than 32,000 NAS. However, these communities make up nearly half of Northwestel's market and, as such Northwestel relies on revenues from these communities to help ensure the continuation of similar services at similar rates across all communities in the North.

Table 1

COMMUNITIES BY NETWORK ACCESS SIZE

Size	% of Communities by NAS Size	# of Communities by NAS Size	# of Satellite Communities by Size
under 101	27%	26	5
101 to 500	50%	48	24
501 to 1500	15%	14	8
1501 to 5000	5%	5	1
5001 and up	3%	3	1

6. The North presents many extreme challenges to the provision of communications services, and these challenges have been recognized consistently by the Commission in numerous Decisions over the last two decades.
7. In Telecom Decision CRTC 99-16, paragraphs 59-62 the Commission stated:

“NWTel delivers service to as many as 96 communities, providing them with about 68,000 telephone lines. More than 80 per cent of these communities scattered over NWTel's operating territory have fewer than 500 telephone lines. Many communities are accessible only by air. As a result, NWTel has the lowest telephone line density in the country. This low density, combined with the size and severe climatic conditions of its territory, requires NWTel to operate and maintain a network without the efficiencies available to companies in southern Canada..... In light of the unique circumstances listed above, NWTel may not have the means to achieve the basic service objective under similar terms and conditions as those for southern Canada.”

8. Communities in the far North are separated by vast distances. Northwestel's satellite communities in the Eastern and Western Arctic best illustrate this characteristic. The distance from one community to the next nearest community will often exceed 300 kilometres by air and there are typically no roads connecting the communities. In addition, the distances to a major centre, usually the territorial capital, can be as much as 1500 kms as in the case of Grise Fiord to Iqaluit.
9. In addition, regular scheduled commercial flight availability between communities is often limited or non existent, not just for our small remote communities, but also for traveling between our two largest communities, Whitehorse and Yellowknife. There is no longer a direct northern regular scheduled commercial flight between our two largest centres, so employees must travel through Vancouver or Edmonton, about 6000 kms (round trip).
10. The long distances and sparse population make air travel very expensive. Frequently, it is necessary to fly work crews over hundreds or even thousands of kilometres for maintenance and repair work. The travel costs, the travel time and the logistics necessary to organize and provide the necessary equipment and crews, adds considerably to the costs of provisioning, maintaining and restoring service in remote communities. On March 9, 2011, Northwestel chartered a plane to fly technicians into Sachs Harbour (a community of 136 people and 110 NAS) from Yellowknife (a distance of nearly 1700 kms with a fuel stop in Inuvik) to repair an outage. Long distance services were knocked out due to a failed block up-converter. Northwestel managed to repair service within 24 hours, however, the air charter cost alone was \$14,000.
11. The high cost of serving these communities is also highlighted by the fact that 31 of our communities are fly-in only and an additional 12 communities have seasonal roads that are open 5 or less months of the year. In addition, given that a large percentage of our communities have very small numbers of NAS, many of these communities cannot support a part-time community technician, which

results in high travel costs on a per NAS basis. These costs are further exacerbated by the high costs of commercial and charter flights as a result of the small size and remoteness of our communities. Grise Fiord is a good illustrative example. The Company typically has less than one repair a month in Grise Fiord, and due to the small size of the community, there is no community technician. As a result, Northwestel must fly in technicians, typically from Iqaluit, to conduct all work. To get there by a regularly scheduled commercial flight, one must fly from Iqaluit to Arctic Bay, then to Resolute, then to Grise Fiord (two commercial flights per week only). As such, it takes three days to fly into this community and a round trip cost on regular scheduled flights costs nearly \$4,400. The total costs to send a technician to conduct repairs or provision new services, regardless of the volume of work, is approximately \$10,000.

12. Moreover, Northwestel's satellite communities are illustrative of the high costs to provision communications services to the North and challenges Northwestel has operating as a full service provider. Thirty-nine communities are served by satellite technology and in addition to the high annual costs of satellite transponders, regardless of the size of a community, all satellite communities require minimum equipment such as: a digital switch, RF equipment, software, IP equipment, satellite earth stations, buildings, and HVAC power equipment. Grise Fiord Nunavut, as discussed earlier, and shown in Appendix 3.a, has 115 telephone lines and a population of 150 people. Northwestel's capital investment in this community is \$3.51 Million or \$30,521 per subscriber line.
13. In addition to satellite transport, the Company utilizes about 8000 kms of microwave radio and 4000 kms of fibre for transport to support 55,600 NAS and 57 communities. Operating the Company's remote microwave sites poses significant challenges. In addition to the extreme weather, the Company must generate its own power at 87 of 156 sites and have standby power generating facilities at the remaining 69 sites. Northwestel is required to generate more of its own power relative to all other Telecommunications Service Providers in Canada. In addition, 37 of these sites are accessible by helicopter only and fuelling these

sites requires diesel fuel to be slung in by helicopter at an average cost of \$2.47 per litre in 2010, (rising to \$3.00 in 2011) although costs have ranged as high as \$4.27 per litre. The Company provides an illustrative example of a helicopter site being refuelled in Appendix 3.b. Repair and maintenance trips to these sites are also very costly. Northwestel spent \$2.5 million dollars on regular scheduled maintenance of its fuel storage and fuel generating facilities in 2010. Total operating maintenance costs average about \$1.30 per KWH at helicopter access sites, and total operating cost for generating power (including maintenance) at is over \$2.35 per KWH.

14. A typical remote helicopter microwave transit site is Parsons, NWT. Capital invested at this site to generate our own power is over \$1M. Moreover the Company spent about \$80,000 in 2010 to generate our own power. Northwestel provides a picture of a microwave site as an illustrative example in Appendix 3.c.
15. Changes in environmental regulations have also impacted costs at sites where power must be generated. For example, in addition to double-walled tanks, Northwestel must have secondary containment systems around pipe systems and mandatory visual inspections are required more frequently or remote network monitoring systems need to be in-place. Changes to foundation requirements have also led to the replacement of foundations at certain sites. Reporting requirements to Environment Canada have also increased. Refer to an illustrative example in Appendix 3.d.
16. The Company's commercial power costs are also much higher than in southern Canada. For example, in the Eastern Arctic, in 2010 Northwestel paid an average of about \$0.53 per KWH. This rate is about 10 times the cost of a KWH in Montreal¹. In addition, across the operating area, commercial power costs

¹ Price based on large customer users of 3,060,000 KWH per year but less than 5,760,000 kWh from *Comparison of Electricity Prices in major North American Cities* (2008, Hydro Quebec) For a recent comparison of Hydro electric rates across the provinces and territories refer to *Energy Pricing Information > Electricity – Current Market Conditions April – June 2011*, (2011 National Energy Board). Available at www.neb.ca

ranged as high as \$2.15 per KWH as is the case at Nahanni Butte, NWT. This community has 51 network access services but the monthly cost for power in 2010 was approximately \$6,000. Moreover, in 2010 Northwestel spent more than \$4 million dollars on commercial power alone for all communities.

17. The challenge of operating in the far North is also impacted by the lack of infrastructure and harsh operating conditions. In some of the most remote locations, Northwestel operates in environmental conditions that might be considered amongst the harshest on the planet for a communications company. In addition to the challenges of operating a vast network with limited road access, weather conditions pose challenges to operations. In some areas, temperatures can often be below 50 Celsius during the winter months and freezing temperatures can occur in any month. Long periods of cold weather and limited sunlight reduce the construction season. In addition, extreme weather blizzards that cause white-out conditions and ice fog can frequently delay travel and can wreak havoc on communications equipment. Northwestel submits that dealing with these harsh conditions is a normal course of business for operating in the far North, and Northwestel continually seeks creative ways to operate in this environment. For example, Northwestel developed a fibre glass cocoon that encloses an entire microwave tower at a remote mountain site at Fraser, British Columbia, which uses vibration to keep ice from forming on the antennas, thus reducing outages and maintenance costs. Please see Appendix 3.e for a picture of this site.
18. In addition to the high costs of providing telecommunication services to the North as a result of the conditions described above, the Company's service area is also unique for its diverse population. Over 50% of the North's people and the vast majority of its communities are Aboriginal. In Northwestel's serving area there are at least 13 distinct Aboriginal groups and languages. In the Eastern Arctic, Inuktitut is more likely to be spoken than English. Therefore, Northwestel must be able to conduct business in Inuktitut. For example, our Eastern Arctic phone book is published in English and Inuktitut, we also provide billing information and bill

inserts in Inuktitut, and Northwestel provides customer services in Inuktitut provided by Inuit customer service representatives in the Iqaluit call centre. Communication with customers is also possible in other Aboriginal languages through some of Northwestel's community technicians who do routine installations and repairs in smaller remote communities, and through Northwestel's payment agents who are located throughout the North.

19. As illustrated, Northwestel's operating environment is comprised of very high costs, vast distances, harsh climate, extremely low population density, distinct cultural diversity and is an operating territory unlike any other in Canada. Given the unique characteristics described above, the Commission has consistently determined over many years that Northwestel requires regulatory frameworks that accommodate these circumstances.
20. This includes the Commission's most recent determinations in Telecom Decision CRTC 2007-5 which introduced Price Caps regulation to the North in February 2007.

"The Commission considers that the price cap regime set out in this Decision recognizes the unique circumstances faced by Northwestel and that the objectives in the Act, as discussed above, are sufficiently flexible to accommodate these circumstances. In light of the above, the Commission finds that section 7 of the Act sets out the appropriate objectives for Northwestel's price cap regime."
21. As described in each of the following sections of this Submission, given the differences in operating environment and components of the Regulatory Framework, the Commission will need to ensure these differences continue to be recognized. Trying to fit the North into one national framework will threaten the delivery of an Obligation to Serve and the BSO in the North. These unique circumstances will continue to demand both certain modifications and a greater degree of flexibility, to ensure Northerners, particularly those living in remote high cost areas, continue to have access to reliable and affordable telecommunications services.

SECTION 3.0 PRICE CAPS STRUCTURE

22. The Commission approved a Price Caps Basket Structure and pricing constraints that are somewhat different than the large ILEC structure and not as simplified as the SILEC structure. Northwestel's service baskets were tailored to its situation to provide certainty, reduce the regulatory burden, and provide a degree of simplicity to the price cap regime. As determined by the Commission in paragraph 117 of Telecom Decision CRTC 2007-5 (Decision 2007-5):

"In light of this determination, the Commission has established a service basket structure and accompanying pricing constraints in order to promote incentives for operational efficiencies and provide adequate protection for consumers. The Commission notes that this approach will also provide the company with certainty, reduce the regulatory burden, and provide a degree of simplicity to the price cap regime."

23. Northwestel's current Basket structure includes the following 6 Baskets:
- (a) Residential Access Services Basket which includes all residential access services including D and H1 bands². Rates for services in this basket are fixed for the life of the current framework;
 - (b) Business Access Services Basket which includes all business access services. An overall constraint of inflation was applied to the basket, with a rate element constraint limiting increases for individual services to 10 percent per year;
 - (c) Frozen Rate Treatment Basket which includes services that address social issues such as privacy, emergency, and special needs. The rates for these services were frozen for the duration of the price cap period;
 - (d) Competitor Services Basket which includes all competitor type services. Proposals for rate changes for these services are considered on a case-by-case basis;
 - (e) Other Capped Services Basket which includes retail services such as optional features, digital private line, analogue private line, and non-

² D Band is Whitehorse and Yellowknife. H1 Band is all other communities.

recurring installation and construction charges. In this basket, the Commission capped rate changes so that the total basket average weighted rate cannot increase; and,

- (f) Uncapped Services Basket which includes all remaining rate regulated retail services. This basket generally includes services which are competitive or have identifiable service substitutes such as toll-free service, Centrex, and special assembly services.

24. In general, in order to achieve the objectives of the Price Caps Framework, Northwestel submits that the Company's Basket constraints while similar to the large ILEC's, must maintain some differences which reflect the unique circumstances of operating in the North, such as small scale of customer and revenue base, large number of services offered and small level of revenue associated with certain services; the unique high cost nature of the far north, and limited market potential for facilities-based competition.
25. While the overall Basket Structure remains appropriate, Northwestel is proposing three modifications to the accompanying basket constraints and assignment of services. Specifically, the Company is proposing to:
 - i. Move Enhanced Features to the Uncapped Basket;
 - ii. Align the overall Basket constraint on the Other Capped Basket to the industry standard of Inflation, effective June 1, 2012; and,
 - iii. Revise the Basket constraint on the Residential Access Basket to the industry standard of Inflation, starting June 1, 2014.
26. A comparison of Northwestel's current and proposed Price Caps Basket Framework is provided in the tables below.

Table 2

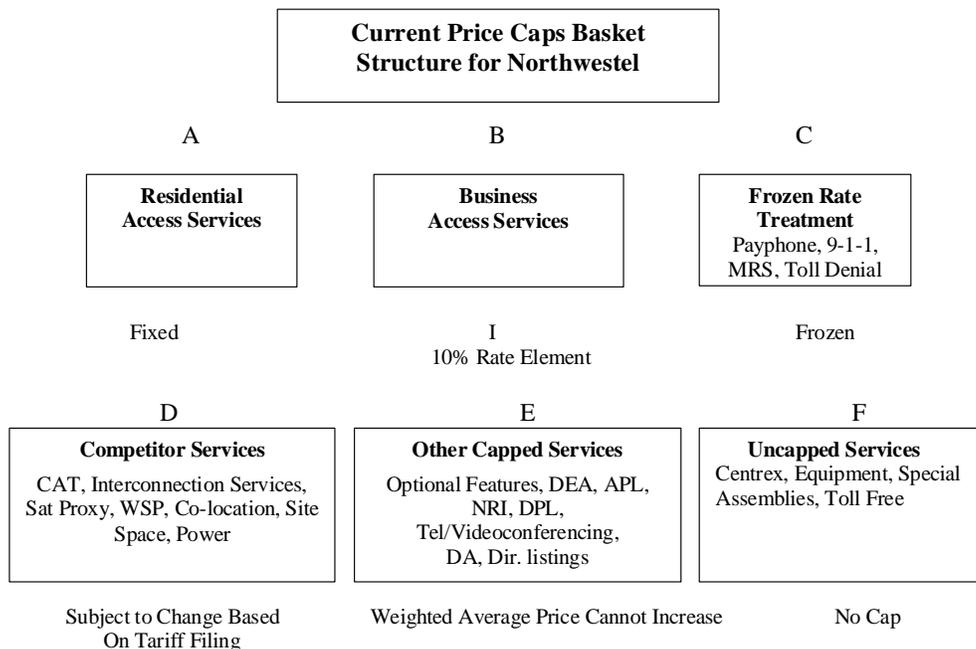
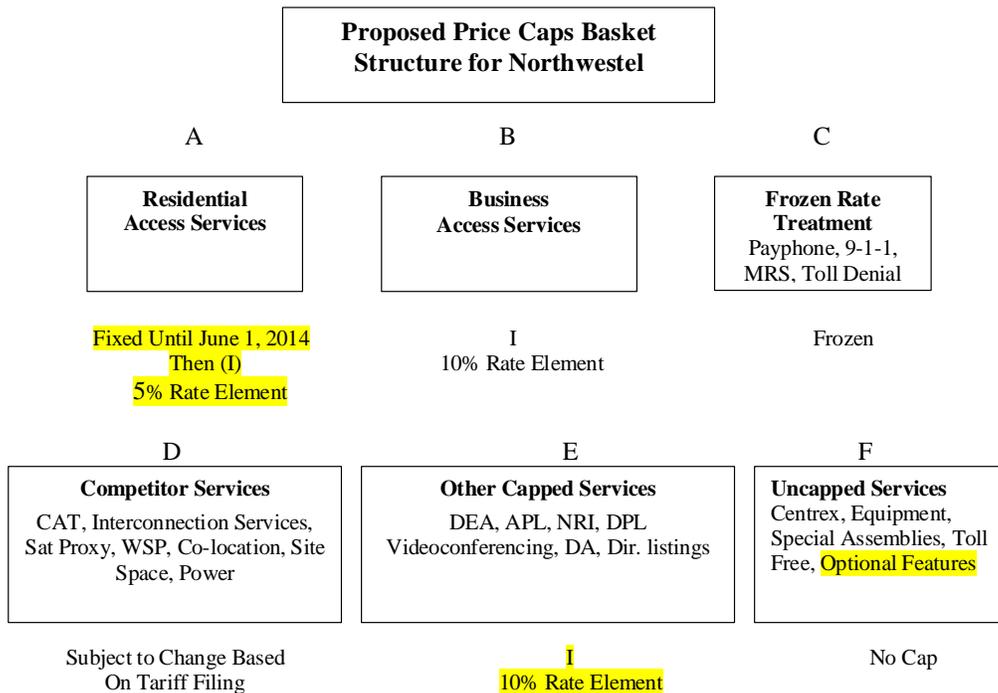


Table 3



SECTION 3.1 ASSIGNMENT OF SERVICES

27. Northwestel submits that optional features should be uncapped as it is for the large ILEC's. In Telecom Decision CRTC 2007-33 the Commission assigned residential and business optional features to Northwestel's Other Capped Basket.
28. For the large ILEC's in Telecom Decision CRTC 2007-27 the Commission stated that "...residential optional local services are discretionary in nature, the demand would tend to be more sensitive to prices. As a result of price increases, a customer could choose to explore other alternatives or to drop the service entirely."
29. Northwestel notes that similarly in the North, these services are optional and have not experienced any significant rate increases in over a decade. Northwestel submits that where optional features are available, the market is mature, and any significant rate increases would likely result in a decline in demand, no different than the conclusion reached by the Commission for the Large ILEC's in 2007. Therefore, in light of the policy objective to reduce regulatory burden, and the principle of fair and equitable treatment, Northwestel requests that residential and business optional features be removed from the Other Capped Basket and included in the Uncapped Basket.

SECTION 3.2 PRICE CAPS CONSTRAINTS

30. Northwestel's current constraint on the Other Capped Basket is the weighted average price of the entire basket cannot increase. Northwestel requests that this constraint be changed to the Inflation Factor (I), the same constraint approved for the Large ILEC's Other Capped Basket set out in Telecom Decision CRTC 2007-27.
31. The Commission removed the productivity factor from the large ILEC's Other Capped basket citing in Telecom Decision CRTC 2007-27 that the ability to

- achieve productivity and efficiency gains in respect of these services would be limited due in part because "...several of the services are becoming obsolete, making it difficult to find replacement parts, and 2) certain legacy services are being replaced by new services offering additional features and benefits".
32. Similarly, Northwestel's Other Capped Basket is fundamentally the same in content as the ILEC's Other Capped Basket and similarly many of the services in Northwestel's other capped basket services such as analogue private line are nearing the end of their service lives. Furthermore, services like digital private line are experiencing significant migration to more cost effective IP and Ethernet based services. This has resulted in the decline in revenues in this basket as shown in response to NWTel(CRTC)06MAY11-201. Moreover, Northwestel's ability to achieve productivity gains in this basket is even more unlikely than that for the large ILEC's given the characteristics of our communities, and limited economies of scale. In addition, the Company has provided evidence in its Submission indicating that the productivity factor for residential high cost access is negative.
33. As such, it is not reasonable to expect Northwestel to achieve consistent productivity gains in these services and thus the basket constraint should be set at Inflation, which is more reflective of actual market conditions and would be similar to the large ILEC's and Northwestel's business access basket. Northwestel requests that this constraint be revised effective June 1, 2012.
34. The Company also proposes that the current basket constraint on Residential Access be revised starting June 1, 2014. The existing constraint freezes residential access rates during the life of the current framework which will end January 1, 2012. Northwestel is proposing an increase of \$2 for January 1, 2012. Following that, Northwestel requests that the residential access rates be fixed until June 1, 2014, at which time, similar to all other non-forborne residential access in Canada as per Telecom Regulatory Policy CRTC 2011-291, residential access rates will be permitted to increase by the inflation factor (GDP-PI).

Northwestel also submits that a 5% constraint on individual service elements would be appropriate. While still providing protection to consumers a constraint of I will allow rates to move closer to cost and minimize the impact on the National Contribution Fund.

SECTION 3.3 APPROPRIATE INFLATION FACTOR

35. As approved in Decision 2007-5, Northwestel submits that the chain weighted GDP-PI remains appropriate as the measure of inflation for the next Price Caps period as used in both the subsidy calculation as well as on Price Caps Basket constraints where applicable. This national measure is the most appropriate, publicly reported, verifiable statistic that measures the rate of inflation experienced broadly across the economy. While it is not uncommon for Northern communities, particular those that rely on air freight and sea lifts to receive goods, to experience greater inflation than more urban /road access areas of Canada, at this time there is no publicly reported inflation factor available for this particular region. As such, the national GDP-PI is the most valid measure available. Northwestel notes that the Company's acceptance of GDP-PI as the Inflation Factor assumes the appropriate continuation of an inflation index adjustment factor for special circumstances, as outlined in the Company's response to NWTel(CRTC)06May11 -103.

SECTION 3.4 PRODUCTIVITY FACTOR

36. Northwestel submits that it is no longer appropriate to include a productivity offset factor. While Northwestel's initial Price Cap Framework (2007 – 2011) did not have an explicit Productivity Offset, or X-factor, the Commission established a Basket Structure and accompanying pricing constraints in order to promote incentives for operational efficiencies.

37. Specifically, to address this the Commission froze residential PES rates and the Band H1 local service subsidy requirement for the price cap period, thereby, as stated by the Commission in Decision 2007-5, paragraph 128:
- “Maintaining residential PES rates and the subsidy at the same level during the period will likely provide an incentive for the company to be more cost-efficient.”
38. In addition, for the Other Capped Services basket, the Commission determined that the weighted-average price of all services in this basket could not increase over the price cap period, effectively incenting the Company to ensure that any cost increases would be offset by cost efficiencies.
39. Based on an analysis of the change in annual service-specific marginal costs for Residential PES (Band H1), the Company’s derived productivity is in fact negative (refer to Appendix 4e for the underlying cost data).
40. Given inflationary pressures greater than the national average GDP-PI on certain cost inputs such as copper plant and power costs, one should not interpret these results to infer that the Company has not achieved any efficiency over the time period presented. In fact, when comparing the 2010 results as filed in Appendix 4e, it is evident that efficiencies were achieved in certain areas.
41. However, given the high cost environment that Northwestel operates in, characterized by very small communities, limited economies of scale, and declining demand, there will be limited opportunity for productivity gains, particularly in legacy services and in the high cost serving area Band H1, and that the productivity offset will likely to continue to trend near zero, if not negative.
42. The Company notes similar recent determinations of the Commission in the BSO proceeding that it is no longer appropriate to include a productivity offset factor in the calculation of the subsidy requirement. Accordingly, the Company submits that it is not appropriate for Northwestel to have a productivity offset factor.

SECTION 3.5 APPROPRIATE APPLICATION OF EXOGENOUS FACTOR

43. Northwestel proposes that the current treatment for exogenous events should continue unchanged for the next price cap period.
44. In Decision 2007-5 the Commission deemed that it was appropriate to have an exogenous variable on the Residential Access, Business Access and Other Capped Basket, in order to adjust prices for cost impacts as a result of events or initiatives that are legislative, judicial or administrative, and which are beyond the control of the Company, addressed specifically to the telecommunications industry, and have a material impact on the Company.
45. In the Company's view, the need to adjust for special events that impact costs unique to the telecommunications industry has not changed. Therefore similar to the Price Cap Framework of the large ILEC's exogenous impacts should continue to be addressed on a case by case basis in the manner set out in Decision 2007-5 for the current Price Caps Framework.

SECTION 4.0 ACCESS RATE PROPOSALS

SECTION 4.1 RESIDENTIAL ACCESS RATES

46. Northwestel proposes that the Commission approve a \$2 rate increase effective January 1, 2012, on residential access services in both H1 band and D band communities, and that these rates be fixed until June 1, 2014, at which time, residential access rates should be permitted to increase by the inflation factor (I).
47. Northwestel residential access rates have been fixed since 2007, since then the average annual inflation rate has been about 2.1%. Northwestel's rate increase would result in a 1.2% average annual rate increase over that time. In addition, by approving this proposal, although rates would continue to remain significantly

below cost in the Company's high costs serving areas, rates will move closer to cost and the Company believes that the rate impact to consumers will be reasonable and the subsidy requirement will be lessened.

48. Northwestel's rates will continue to be among the highest rates approved for residential access in Canada, but not the highest as shown in Table 4 below.
49. Northwestel notes that this proposal would be consistent with the Commission's framework for all other incumbent phone companies in Canada as outlined in Telecom Regulatory Policy CRTC 2011-291, and would result in a reasonable balance between moving rates closer to costs, lessening the subsidy requirement and minimizing rate shock concerns for rate payers. As such, Northwestel believes its proposal constitutes a reasonable balance to achieving comparable rates for customers living in remote high cost areas and reducing the impact on the NCF.

Table 4

RESIDENTIAL INDIVIDUAL LINE ACCESS RATES			
COMPANY	RATES	COMPANY	RATES
TELEBEC		TELUS - ALBERTA	
Lowest Rate	\$ 29.47	Lowest Rate	\$ 29.15
Highest Rate	\$ 36.20	Highest Rate	\$ 32.76
NORTHWESTEL		TELUS - BC	
Lowest Rate	\$ 31.33	Lowest Rate	\$ 24.88
Highest Rate	\$ 31.33	Highest Rate	\$ 30.14
NORTHERNTEL		BELL ALIANT REGIONAL	
Lowest Rate	\$ 32.13	Lowest Rate	\$ 18.89
Highest Rate	\$ 32.13	Highest Rate	\$ 27.18
MTS ALLSTREAM		BELL ALIANT ATLANTIC	
Lowest Rate	\$ 22.83	Lowest Rate	\$ 22.15
Highest Rate	\$ 27.24	Highest Rate	\$ 28.49

rates as of June 1, 2011

Northwestel's \$31.33 rate does not include EAS charges. Access lines in Marsh Lake/Judas Creek incur a \$6.50 charge per access line for EAS to Whitehorse. Whitehorse NAS pay a \$0.48 charge.

SECTION 4.2 BUSINESS ACCESS RATE RESTRUCTURING

50. Northwestel proposes that the Commission approve a \$2 rate increase on business individual and multi-line access service effective January 1, 2012. Although Northwestel is currently able to increase rates by Inflation in the Business Access Basket, Northwestel's current business access rates are significantly below the highest tariffed rates for other ILEC's in high cost areas (shown in Table 5). In addition, as evidenced in the Company's response to CRTC 204, our business access rates are below cost plus a 25% mark-up.

TABLE 5

Individual Line Business Rates - highest and lowest tariffed rates in D to G bands (June 1, 2011)

TELEBEC		TELUS	
Lowest Rate	\$ 66.37	Alberta	
Highest Rate	\$ 76.73	Lowest Rate	\$ 63.05
		Highest Rate	\$ 73.45
NORTHWESTEL - Proposed		BC	
Lowest Rate	\$ 63.75	Lowest Rate	\$ 63.05
Highest Rate	\$ 63.75	Highest Rate	\$ 73.45
NORTHERNTEL		BELL ALIANT REGIONAL	
Lowest Rate	\$ 56.93	Lowest Rate	\$ 54.53
Highest Rate	\$ 56.93	Highest Rate	\$ 69.71

51. Offsetting most (#) of this rate increase, Northwestel proposes to reduce rates for its Teleconferencing Service. Northwestel notes that the rate for this service is \$0.35 per minute, significantly higher than the prevailing competitive market rates of \$0.11 to \$0.17 per minute. Given the significant competition in this market, the Company has an approximate (#) share of the market. When considering the advancements in IP based offerings such as Skype conferencing that are not included in the above data, Northwestel's market share is even less.

52. With an estimated cost of approximately (#) per minute and a rate of \$0.35, this high contribution service is a source of implicit cross-subsidy. However, given the competitive nature of this market, this source of implicit cross-subsidy

is no longer sustainable. Consequently, effective January 1, 2012, Northwestel proposes to bring rates down to (#) per minute³, a level that is at the high end of the market.

53. Northwestel submits that increasing Business Access rates and mostly offsetting with a rate reduction in Teleconferencing service, is an important step to removing an unsustainable implicit cross-subsidy, and moving rates closer to cost.

SECTION 5.0 SUBSIDY REQUIREMENT

54. As detailed in Section 2.0, Northwestel operates in a distinct high cost environment. Northwestel's operating territory is comprised of 2 larger centres – Whitehorse, Yukon and Yellowknife, Northwest Territories, that comprise 43% of the Company's NAS – with the remaining NAS spread over 94 relatively small communities. Furthermore, these larger centres are served largely by fibre facilities, whereas many of the smaller communities are served either by high cost microwave radio or as is the case for 39 communities, high cost satellite.
55. The **extent** of the uneconomic areas relative to Northwestel's total operating territory is greater than any other ILEC. The challenge of continuing to provide Canadians living in remote Northern communities with access to comparable services to those available in other regions of the country continues to rely on a balance of reasonable rates, sustainable sources of implicit cross-subsidies, and access to the national subsidy mechanism.
56. With the evolution of IP technologies and competitive pressures, risks to this delicate balance are now materializing. Advancements of IP technologies and networks, including the increased penetration of broadband access, are displacing traditional legacy services (e.g. long distance and digital private line

³ Given the significant competition in this market and evidence that Northwestel is not dominant in this market, the Company has filed for forbearance on March 15, 2011.

- services), and more importantly are eroding critical sources of internal cross-subsidies. Furthermore, the creation of a competitive duplicate network in the communities served by satellite – an area that is largely uneconomic to serve for one Carrier, let alone two, has resulted in further erosion of internal cross-subsidies.
57. The North is experiencing first hand, the disruptive nature of subsidized duplicate infrastructure in an uneconomic region and the disconcerting impact this is having on Northwestel's ability to sustain its obligation to provide services to remote Northern communities. The federal government has provided approximately \$60M in direct funding to an alternative provider to build not only broadband access infrastructure, but funding of satellite transport facilities as well, in the Northwest Territories and Nunavut. This funding of a duplicate network in a high cost region that is already uneconomic for one provider, let alone two, is causing significant market distortions. In this regard, Northwestel notes that in its various proceedings to allocate funding for rural broadband services from the Deferral Accounts, the Commission has been very careful to avoid, if at all possible, funding broadband service in any remote or rural area that already has, or will shortly have, broadband service offered by an existing service provider. The Commission has made clear that it is well aware that it simply makes no sense to subsidize duplicate infrastructure in remote and rural areas where service is already in place and is often only marginally economically viable (or even more so where the existing service is not viable but is supported via a subsidy).
58. This subsidized alternative network is not only being used to provision high speed Internet but has also been leveraged to compete with Northwestel's advanced data network services in the Eastern Arctic, resulting in significant revenue erosion in data services. Furthermore, this network is also displacing toll and business access services, resulting in a decline in those revenues. Given the relatively fixed nature of the cost to serve this region, the cost of certain shared elements must now be borne by fewer remaining subscribers, resulting in a need for higher rates and Residential PES subsidy requirement.

59. As legacy data services are an important source of implicit cross-subsidy to support the provision of basic services (e.g. local access and toll) in remote high cost communities, the loss of implicit subsidies is now jeopardizing the sustainability of these basic services.
60. While advancement of newer technologies and increased competitive pressures is occurring throughout the country (although presumably ‘subsidized’ competition is not occurring to the same degree), the unique challenge faced in the far North is the degree to which margins from these displaced legacy services were relied on to cross-subsidize the provision of high quality services to remote uneconomic communities.
61. Consequently, the role of the National Contribution Fund is of far greater importance to the North – and is an important mechanism to ensure that all Canadians have access to high quality services at reasonable rates. Accordingly, Northwestel’s proposal includes some additional unique subsidy mechanisms to ensure that even those living in the most remote Northern regions of our country continue to have access to quality services enjoyed by the rest of Canada.

SECTION 5.1 High Cost Satellite Toll Connect Links

62. Over 40% of Northwestel’s communities are served by high cost satellite technology – including all of Nunavut and many in the Northwest Territories. As illustrated in Appendix 3.a (Grise Fiord), the vast majority of these communities are comprised of one store, an RCMP station, a health station, the school, some government offices, one hotel, and a few homes. As there are no roads to these communities, they rely on airlifts and the annual sealift to receive goods. Many services are only available in Iqaluit, Whitehorse or Yellowknife – hundreds of kilometres away – and from a communications perspective, must be accessed via the long distance network.

63. Given the nature of these communities, the long distance network is essentially an extension of the local network. This was recognized by the Commission in Telecom Decision CRTC 99-16 where the Commission noted Northwestel's unique cost structure with regard to toll connecting trunks and accordingly ordered that the associated costs be assigned to the Monopoly Access category.

“66. Switching and aggregation facilities include the trunks connecting NWTel's toll switches (Access Tandem switches) to its local switches, as well as a portion of the switches themselves. The Commission notes that the costs of these toll connecting trunks are distance and usage sensitive.

67. NWTel faces unique circumstances in that it has unusually long toll connecting trunks throughout its territory, and its ability to maintain and upgrade these facilities affects whether customers will have access to quality toll service. The Commission considers that NWTel may not be able to propose a cost-based switching and aggregation rate that is sustainable and thus may not be able to recover the associated costs in a competitive long distance environment.

68. The Commission finds it appropriate in these circumstances that the company's switching and aggregation facilities be considered an extension of the local network. Accordingly, the associated costs are to be assigned to the Monopoly Access category as opposed to the competitive toll category as is the case with other telephone companies. The Commission is satisfied that this change is appropriate in order to facilitate the provision of competitive long distance service to subscribers throughout NWTel's territory. Notwithstanding this change, the Commission notes that the portion of NWTel's toll switches used to provide the inter-toll portion of long distance service, along with the trunks used to connect those switches, would remain in the Competitive Toll category.”

64. Northwestel submits that there have been no material changes to its unique circumstances with regard to toll connecting trunks, and that they continue to be integral to meeting the Basic Service Objective in the North.

65. The extent to which satellite technology is relied on to access communities in the far North is significant and poses some unique challenges. As previously stated, 40% of Northwestel's communities are served by satellite, and approximately 27% of the Company's total long distance traffic is carried over high cost satellite links.

66. The Company's long distance services, including the Carrier Access Tariff (CAT) (typically referred to as Access Tandem rates in southern Canada), are priced based on average costs, and provide all consumers across the North with access to comparable rates for long distance services. Embedded in this averaged pricing model is an important flow of cross-subsidy from high volume high margin communities to high cost remote satellite fed communities.
67. As illustrated in Appendix 4a, the degree of cross-subsidization is most apparent and most at risk in Whitehorse and Yellowknife. These two centres are served with Class 4/5 Access Tandem Toll Switches and therefore the "toll connect" costs incurred are essentially nil. However, traffic originating or terminating from these two centres incur the same CAT rate of \$0.0415 per minute as traffic that transits the high cost satellite links to reach the Class 5 communities.
68. The cost of satellite toll links are approximately **nine times** higher than the cost of terrestrial toll connect links. It is clearly evident that minutes to/from our larger centres are significantly cross-subsidizing traffic to these remote satellite communities. While this model has worked in the past, with the current evolution of IP technologies, the reliance on this internal cross-subsidy is no longer sustainable.
69. Further supporting this argument, in the recent BSO proceeding, Bell Aliant stated (paragraph 136 of their Submission):
- "To the extent that expensive long-haul facilities (e.g. satellite circuits) may be used to provide interexchange services, the revenue from such services and from Access tandem services may be insufficient to cover the costs, given the high fixed costs and the small customer base."
70. Advancements in IP technologies and competitive alternatives are displacing toll traffic, particularly in the Company's two largest centres – Whitehorse and Yellowknife. Billed toll traffic in these two communities has declined by approximately (#) over the last five years, whereas toll traffic in satellite communities has increased. Furthermore, there is significant risk of carriers seeking IP based alternatives to avoid paying the high cost of toll termination.

With the decline in toll traffic from these two large communities, the flow of cross-subsidy that is sustaining the high cost satellite links is declining – and this will only worsen as migration to IP networks and competitive alternatives continue – and therefore is no longer a sustainable source of subsidy.

71. While rate de-averaging is a possibility, there is a customer expectation for comparable services, including long distance services, at reasonable rates. This is one of the core underpinnings of the Basic Service Objective and the establishment of the National Contribution Fund. Increasing rates to levels closer to cost in satellite communities will result in long distance service not being affordable for many individuals and even small businesses that rely on the long distance network to access services in the larger centres of Iqaluit and Yellowknife.
72. Consequently the Company submits a proposal to partially alleviate this issue and while not fully addressing the magnitude of the challenge, it balances the objectives of the BSO, achieves comparable services at reasonable rates and minimizes the impact to the National Contribution Fund (NCF).
73. Given that the satellite toll connect links are an extension of the local network, the Company submits that is appropriate to assign the portion of the high cost satellite links used by residential consumers to the access network⁴, and to add the costs accordingly to the res. PES Phase II Cost Study and the subsidy requirement calculation for Band H1. For the purposes of this proposal the Company has updated its Toll Connect Costing and is filed in Appendix 4b. With a portion of these costs being assigned to the access network, the cost based CAT is reduced accordingly. The Company submits its revised CAT in Appendix 4c. As evidenced in this attachment, while interconnection rates would still remain significantly higher than the Access Tandem rates that exist in southern

⁴ Based on an analysis of billed satellite toll minutes, the Company determined that (#) of the Satellite Toll traffic is attributed to Residential, and therefore attributed (#) of the Satellite Toll Connect Links to the access network, and the remainder (#) to be recovered through an averaged cost based CAT.

Canada, the cost based CAT will be reduced from \$0.0415 to \$0.029, a 30% reduction.

74. Even at this reduced rate, the CAT remains high relative to other parts of the country, and the risk of further erosion of internal cross-subsidies from our low cost major centres to the high cost satellite communities remains. Ultimately, a more sustainable source of subsidy must be found for all of the satellite toll connect facilities. If the entire cost of these facilities were to be recovered from the NCF, the additional annual subsidy requirement would be approximately \$6.7M, versus the \$2.8M being requested as part of the residential local service subsidy requirement.
75. However, while the Company submits that a sustainable business model for these high cost satellite toll connect facilities is an issue for the business and residential markets, the Company's proposal to include only the residential portion of the Satellite toll connect links in the subsidy requirement strikes a reasonable balance between achieving the objectives of the BSO, and lessening the impact to the National Contribution Fund (NCF).

SECTION 5.2 Residential PES Band H1

76. The Company submits its updated Detailed Phase II Cost Study for residential PES Band H1 in Appendix 4d. As submitted above, the Company is proposing to add the cost of the Satellite Toll Connect Links associated with residential service to the cost of residential access. Accordingly, included in Appendix 4d (page 5) is the impact of adding these costs. As evidenced in Appendix 4e, the total unit cost associated with res. PES Band H1 (excluding the impact of adding toll connect) has risen since 2006 reflecting general inflation impacts as well as the cost of key inputs such as copper, and power related expenses rising at a level greater than inflation. Furthermore, the impact of losing the largest business customer in Nunavut – the Government of Nunavut – is also impacting the costs associated with the provision of res. PES as the cost of certain shared elements must now

be borne by the remaining subscribers. Partially offsetting these increases are certain efficiency improvements. For example, the consolidation of the company's billing systems is resulting in a lower per unit billing and customer care cost associated with residential PES. However, when examining the change in these service-specific marginal cost studies, the derived productivity offset is actually slightly negative, validating the comments of many of the ILECs in the BSO Proceeding that there are very few additional productivity gains to be achieved in the provision of voice services in HCSAs without resulting in a degradation of service. Accordingly in Telecom Regulatory Policy CRTC 2011-291, paragraph 111, the Commission concluded that

“...beginning with subsidy calculations for 2011 with an effective date of 1 June 2011, the productivity offset factor will no longer be applied in the calculation of the cost component used to calculate subsidy amounts.”

77. Northwestel submits that similar to the new treatment of the southern ILECs, a productivity offset factor should not be applied in the calculation of the cost component used to calculate the company's Band H1 subsidy.
78. As detailed in Appendix 4f, the estimated 2012 residential PES subsidy requirement incorporating the updated res. PES costing (including the residential satellite toll connect costs) and reflecting the proposed residential rate increase is \$14.35M.

SECTION 5.3 SIP I

79. In Decision 2007-5, the Commission created a unique explicit subsidy mechanism for the North composed of two elements: one for providing residential access service to high cost serving areas; and a second component to recover the costs of the Company's Service Improvement Program (SIP I). While the costs and revenues associated with the SIP Access Projects are included the residential PES costs and subsidy requirement calculation, costs associated with Transport, Toll, Switching and Dial-Up Internet Projects are recovered through a separate subsidy.

80. Northwestel's SIP plan was rolled out in 2001 to 2005 and resulted in a total capital investment of \$58.6M in the non-access portion (Transport, Switching, Toll and Dial-Up Internet). In Decision 2007-5, the Commission recognized that Northwestel did not have the economic resources to achieve the BSO on the same conditions as southern Canada, and as a result the Commission approved an annual SIP subsidy requirement of \$10.1M based on recovering all of the capital expenditures and any associated costs driven by the economic and asset parameters over the weighted average service life of the equipment (determined to be 18 years).
81. Consistent with the methodology approved in Decision 2007-5, the Company submits a current subsidy requirement calculation incorporating current economic parameters, and reflecting the asset parameters as approved in Decision 2007-5. As provided in Appendix 4g, the resulting Subsidy Requirement has not changed materially and remains at \$10.1M. In effect, all of the costs associated with the initial capital investment and any corresponding tax impacts, replacement capital requirements, and variable common costs – all driven by standard economic and asset parameters – are recovered over an 18 year period. The annual subsidy requirement calculation is based on the continuous annuity (AEC) over the study period, corresponding to a breakeven revenue requirement (which equates to the present worth of all costs), and including a 15% mark-up. As the average remaining life of this capital investment is approximately 10 years, the costs associated with this initial SIP Program are not fully recovered, and the annual subsidy requirement of \$10.1M remains appropriate.

SECTION 5.4 A New Service Improvement Plan – SIP II

SIP II – Enhanced Calling Features

82. Decision 99-16 established a basic service definition for telephone service in Canada that includes: (i) individual line service with Touch-Tone dialing, provided by a digital switch with capability to connect via low-speed data transmission to the Internet at local rates; (ii) access to the long distance network; (iii) enhanced calling features including access to emergency services, voice message relay service, and privacy protection features; (iv) access to operator and directory assistance services; and (v) a copy of a current local telephone directory.
83. As noted above, the Commission approved a Service Improvement Program and corresponding subsidy for Northwestel that went a long way to achieving the national BSO in Northern Canada. The Company was directed to undertake uneconomic investments to extend and improve local network access, upgrade its toll network, upgrade switches, provision dial up internet to about 50 communities, and introduce calling features to a few communities.
84. Northerners have benefited immensely from the access to improved services that SIP delivered – bringing similar services to those available in southern Canada at reasonable rates. However, the BSO for the North was modified to exclude the provision of enhanced calling features in many communities, thus the National BSO was not fully achieved.
85. The desire of Northern residents to have access to enhanced calling features reflects, in part, a desire common to all Canadians: an increasing need to control unwanted telephone access to their homes. This broad social need has been reflected by Parliament in the language of the Telecommunications Act, section 41, which gives the Commission express authority to take measures to control unsolicited communications “to prevent undue inconvenience or nuisance”. In the Company’s view, this social objective is equally important throughout the North, and the implementation of enhanced calling features to the remaining unserved communities will provide all Northerners with similar tools to achieve this objective as are currently available to other Canadians.

86. Over the years, the Company has received numerous letters from community leaders requesting access to Call Display – largely due to issues within the community related to abusive calling. Please see Appendix 5 for two such letters from community leaders requesting Call Display for the community of Gjoa Haven, Nunavut – the most recent letter dated April 1, 2011.
87. The Company notes that privacy call features are of particular importance to citizens in remote communities, as reflected in penetration rates for Eastern Arctic communities, which often exceeds 60% on residential lines where Northwestel has provisioned calling features, largely eliminating significant abusive calling issues in these communities.
88. As the social issue of abusive calling tends to be more of a concern in Northern communities, the Company contends that the social benefits of Call Display necessitate the provisioning of enhanced calling features throughout the North. This would help ensure the following objectives of the Act are accomplished: (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; and (h) to respond to the economic and social requirements of users of telecommunications services; and (i) to contribute to the protection of the privacy of persons
89. As a result, Northwestel proposes to include the investment in enhanced calling features, particularly call display, in all remaining 29 unserved communities, as an additional SIP program, for an initial total capital investment of \$2.6M with an annual subsidy requirement of \$421K.

90. The Company notes that Service Improvement Plans to replace obsolete and/or unsupported infrastructure in the North, should also be anticipated given the Commission's objectives of ensuring that consumers in remote high cost areas continue to have access to reliable and affordable telecommunications services.
91. As stated at paragraph 41 of the Yukon Government's 15 August 2005 submission to Industry Canada's Telecom Policy Review Panel,
 "... there is a critical need to upgrade and expand the telecommunications infrastructure in the North. There is no realistic prospect of achieving this without some level of intervention, which will most likely include economic incentives, such as by way of subsidies. There is a particular need to address the transport or underlying infrastructure, although there may well be locations in the Yukon where support is also required for the access portion of the network".
92. Projects should be considered for SIP and corresponding subsidy if they are required to maintain the BSO and are uneconomic and, given their magnitude, the associated costs cannot be absorbed by Northwestel in the foreseeable future. Northwestel notes that unlike the large ILECS that were able to fund their SIP programs in part from deferral accounts, Northwestel does not have a deferral account mechanism. Furthermore, given the high cost environment and the low population density, the Company continues to have challenges in finding sustainable sources of implicit cross-subsidy for these large uneconomic projects.
93. An additional SIP project that meets the above criteria is the replacement of an SR500 Radio System. The Company provides service in the Halfway River valley area of Northern British Columbia with a wireless access network that no longer complies with Industry Canada Spectrum Utilization Policy. In addition to the Spectrum Policy non-compliance, many of the network components in this network are manufacturer discontinued. In order to resolve the spectrum issue it will be necessary to replace much of the network equipment in addition to the RF components. This network was installed under a Service Extension Program as directed in Telecom Order CRTC 95-886. The installation of this original network was uneconomic and the Company received a one-time subsidy for the initial

- installation. As the high cost/low density nature of this region has not changed, the replacement of this network is also uneconomic and requires some form of subsidy. The Company proposes to replace this network under a new SIP.
94. Replacement of this obsolete network will require an estimated \$4.3M in capital investment, resulting in an annual subsidy requirement of \$677K, and will provide high quality access services and enable access to the internet at speeds which make internet use feasible. Approximately 150 customers representing about 250 NAS are affected by this project. The largest single location on this network is the Upper Halfway village which presently has about 35 customers and 55 NAS. The Company notes that the capital cost per NAS of \$17K is less than the \$25K threshold that was set in the Company's initial SIP (2001 to 2005).
95. In summary, Northwestel is proposing an additional SIP program to provision call display in the remaining communities that currently do not have this service, and to replace the SR500 Access System in the Upper Halfway River region of Northern BC. Details of the costs associated with this proposal are included in response to interrogatory NWTel(CRTC)06May11-501.
96. For the initial SIP program, the Commission recognized that Northwestel did not have the economic resources to achieve the BSO on the same conditions as southern companies due to the high cost characteristics of the northern environment, and consequently, in Decision 2007-5, the Commission created a unique explicit subsidy mechanism for to recover the costs of the Company's Service Improvement Program (SIP I). Accordingly, as provided in Appendix 4h, the Company proposes invest \$6.9M in capital and to recover all of the capital carrying costs associated with this investment through an annual Subsidy of \$1.1M from the National Contribution Fund.
97. Consistent with the methodology approved for SIP I in Decision 2007-5, the Company proposes to recover the required capital investment costs over the weighted average service life of the associated investment (determined to be 15

years). In effect, all of the costs associated with the initial capital investment and any corresponding tax impacts, replacement capital requirements, and variable common costs – all driven by standard economic and asset parameters – are recovered over a 15 year period. The annual subsidy requirement calculation is based on the continuous annuity (AEC) over the study period, corresponding to a breakeven revenue requirement (which equates to the present worth of all costs), and including a 15% mark-up.

98. The Company notes that the cost details as submitted for the SR500 replacement project are preliminary estimates. The Company will be undertaking site visits and performing site design and engineering analysis over the next two months and will submit final estimates and subsidy requirement calculations by August 2, 2011.

SECTION 5.5 Subsidy Requirement 2012 and Going Forward

99. Northwestel's proposal includes some unique subsidy mechanisms to ensure that even those living in the most remote regions of our country continue to have access to quality services enjoyed by the rest of Canada. As submitted in Appendix 4i, the Company's Subsidy Requirement for 2012 is estimated to be \$25.6M.
100. Similar to the ILEC Price Cap Framework, the Company submits that the subsidy requirement per NAS for Res PES Band H1 be based on the cost component as submitted in Appendix 4f, adjusted for inflation on an annual basis. The subsidy requirement per NAS would be applied to actual NAS.
101. With regards to the Company's Service Improvement Programs (SIP I and the proposed SIP II), as the subsidy requirement calculation is based on a continuous annual equivalent cost over the average life of the equipment, it remains appropriate for the Annual SIP Subsidy Requirement to remain fixed for

the duration of the next Price Cap Framework as the average remaining life is greater than 4 years.

102. Given the unique high cost characteristics and the extent of the uneconomic areas relative to the Company's total operating territory, the Commission has continuously determined over many years that Northwestel requires a regulatory framework – including a unique subsidy mechanism – that accommodates these conditions. Accordingly, the distinctive subsidy mechanism for the North as proposed by Northwestel is essential to ensure that even those living in the most remote regions of our country continue to have access to quality services enjoyed by the rest of Canada.

SECTION 6.0 LOCAL COMPETITION

103. Facilities based local competition and Local Number Portability (LNP) should not be adopted in the far North during the next regulatory framework. The community characteristics of the far North, makes implementation of LNP economically unfeasible and does not achieve the objectives of the Telecommunications Act in the most feasible way.
104. The market size of the far North is too small and consequently the market demand for local competition does not justify the expenditures required to implement facilities based local competition.
105. Northwestel has not received a formal request for local competition from a service provider. Moreover during the proceeding that lead to Telecom Decision CRTC 2007-5, no competitors came forth indicating that they were interested in providing facilities based local services in the far North.
106. The vast majority of Northwestel territory is made up communities that are as small and even more remote than the communities that currently do not have LNP in southern Canada.

107. In addition to the lack of market demand characteristics to support LNP, the Company submits that the start up and on-going operational costs to support LNP are prohibitive. Northwestel prepared a preliminary estimate of the costs to implement LNP and provided in response to NWTel(CRTC)06May11-402.
108. The total cost of internal system changes, process development and network replacements and upgrades necessary would be approximately \$31.7 M.
109. More specifically, the most costly components for Northwestel to implement Local Number Portability would be the necessary network investments. Unlike the SILEC's, the North does not have CCS7 or switches capable of LNP in most communities. As a result, required network investments would include CCS7 signaling in all but 5 switches, switch replacements of 57 of 78 switches, and the installation of LNP software in all local switches.
110. The STP equipment currently deployed in Yellowknife and Whitehorse would also have to be replaced in order to provide the expansion capacity for CCS7 links to all communities currently without CCS7 connectivity. Northwestel would also need additional satellite modems in 39 communities and the associated satellite bandwidth to provide the dedicated data links essential for CCS7 signaling.
111. The cost for all network upgrades including CCS7 signaling, LNP capable switches, LNP software configuration, training, installation, trunking expansion, and CCS7 link expansions is estimated to be \$30.7 M.
112. Furthermore, significant systems upgrades and process development to handle LNP requests would also be needed. Northwestel does not utilize the same systems as any other individual Large ILEC's. This complexity will drive higher costs of implementing LNP. In addition, Northwestel notes that system change costs are largely fixed regardless the number of communities impacted. Refer to

the Company's response to NWTel(CRTC)06May11-402. The cost of internal system changes and process development is estimated to be \$1.0M.

113. As outlined above, there are major differences between the network of Northwestel and the networks of other ILEC's. These differences are significant in terms of the costs and even the feasibility of implementing LNP, particularly given limited demand. Accordingly, Northwestel submits that the framework for facilities based competition designed for the South would not be appropriate for the far North.
114. In addition to the high cost relative to limited demand and small market, Northwestel is concerned about the potential impact that facilities based local competition may have on the Company's ability to maintain its obligation to serve in the small remote communities. The Company's current framework relies on substantial internal cross-subsidization from its two major centres, Whitehorse and Yellowknife, in order to maintain similar services at reasonable rates across the North. If Northwestel were required to provision LNP including porting out to wireless, in addition to the high implementation costs, the Company would face the loss of revenues from the major centers that are relied on to cross-subsidize services in the other 94 high cost communities.
115. During the proceeding leading to TRP 2011-291, the Commission took note of the economic implications of the so-called "doughnut effect". In the North, 77% of communities served have less than 500 NAS while Whitehorse and Yellowknife represent nearly half the total NAS. This service territory represents an extreme example of the potential for the "doughnut effect". The market in the North can fairly be described as "the ultimate doughnut". Northwestel is very dependent on revenues from its larger centers to support the many smaller communities. Northwestel does not have the means to absorb either the start-up costs or recover ongoing fixed costs through revenues from other services provided to the remaining customers, especially those in communities with less than 500 NAS.

116. If customers were to migrate to alternative local providers, Northwestel would still have to maintain all of the same infrastructure in local loops, switches, transport facilities, even as wireline NAS declines. Consequently, facilitating wireline to wireless portability would have adverse cross-impacts on existing infrastructure and the current cross-subsidies that support it.
117. In summary, the start up and ongoing costs to establish local competition with local number portability make it uneconomic and unreasonable to implement in a market area as sparsely populated and spread out as it is in the far North.
118. This conclusion is identical to that reached by the Commission in Telecom Decision CRTC 2007-5 paragraph 42 where the Commission determined that:
- ...in order to implement facilities-based local competition, Northwestel would be required to **implement significant modifications and enhancements to its network**. The Commission also notes that the associated **costs would be substantial and that the Company might not be able to recover these costs**. In light of the above and the limited likelihood of competitive entry, the Commission concludes that it would not be appropriate to require Northwestel to implement facilities-based local competition in its territory at this time. **[emphasis added]**
119. What has changed since 2007 is the increase in other forms of local competition – namely resale of local services, cellular and VoIP – that are providing Northern consumers with considerable choice. Resale of Northwestel’s retail services allows competitors to incorporate local service in a value-added bundle for customers – extending to customers the benefits of competitive innovations in value-added services and also allows national competitors to serve their national customers in the North. Furthermore, cellular services are available in 40 communities covering over 80% of the population of the North, and thus provides an alternate form of choice to both residential customers and small businesses. With continued advancements in IP technology, VoIP offerings are increasingly becoming an alternate form of voice communication, as evident by the significant growth in VoIP traffic experienced in the North (VoIP traffic has grown exponentially from 0.5 million minutes in 2005 to 20 million minutes in 2010).

120. In conclusion, due to the high cost of implementing LNP, lack of demand, and alternate available forms of communication services, the Company submits that it would not be appropriate to establish facilities based local competition in the North.

SECTION 7.0 LENGTH OF NEXT FRAMEWORK

121. Northwestel notes that the length of the current framework was set at 4 years and then extended to 5 years in Telecom Decision CRTC 2010-274. In Telecom Decision CRTC 2007-27 the Commission did not fix the framework period for the large ILEC's but left it open. Northwestel submits that in this Submission the Company has presented a number of issues which has compelled it to propose certain modifications to the framework, particularly to the subsidy regime. Given these changes, and the unique operating challenges faced by Northwestel, and the fact that Northwestel's Price Caps Framework is relatively new compared to the large or small ILEC's, then the Company submits that a 4 year length will be more appropriate than an undetermined period.

SECTION 8.0 CONCLUSION

122. Given the unique high cost characteristics of Northwestel's operating environment, the Commission has continuously determined over many years that the Company requires a regulatory framework that accommodates the distinctive conditions. Consequently, Northwestel has proposed a number of modifications to its Price Cap framework and subsidy regime, to ensure Northerners, particularly those living in remote high cost areas, continue to have access to reliable and affordable telecommunications services.
123. Northwestel's proposed changes to the Price Cap basket structure are designed to align with the regulatory frameworks of other Canadian telephones companies, while at the same time addressing the unique circumstances of the North.

124. Proposed rate changes include a modest \$2 rate increase to residential and business network access service, and a rate reduction in Teleconferencing service. Northwestel submits that the proposed rate changes are a reasonable balance between moving rates closer to costs, minimizing the subsidy requirement from the NCF, lessening unsustainable implicit cross-subsidies, while continuing to align with rates for similar services elsewhere in Canada.
125. The role of the National Contribution Fund is of far greater importance to the North and is an important mechanism to ensure that all Canadians have access to high quality services at reasonable rates.
126. Given that satellite links are an extension of the local network, the Company submits that it is appropriate to assign the portion of the high cost satellite links used by residential consumers to the access network, and to add the costs accordingly to the Res PES Phase II Cost Study and the subsidy requirement calculation for Band H1.
127. In addition to the need for continued funding of the company's initial SIP program, Northwestel is proposing an additional SIP program to provision enhanced calling features in the remaining communities that currently do not have this service, and to replace the SR500 Access System in the Upper Halfway region of Northern BC.
128. Northwestel's total annual subsidy requirement of \$25.6M ensures that even those living in the most remote regions of our country continue to have access to quality services enjoyed by the rest of Canada.
129. The Company submits that given the significant costs and limited demand for facilities based local competition, the resale model continues to be appropriate for the North. Resale of Northwestel's retail services allows competitors to incorporate local service in a value-added bundle for customers – extending to customers the benefits of competitive innovations in value-added services and also allows national competitors to serve their national customers in the North.

Furthermore, cellular telephone service also provides an effective and efficient means to provide choice to both residential customers and small businesses in the North.

130. In conclusion, Northwestel's proposals provide a balanced and reasonable framework which will ensure that the needs and interests for the North and the rest of Canada are met.

131. Pursuant to Section 39 of the Telecommunications Act, the Company files detailed costing, demand and market share information in this Evidence in confidence with the Commission. Release of such detailed information would assist existing and potential competitors in developing more effective business and marketing plans and if disclosed, would cause specific direct harm to the Company. An abridged version is provided for the public record.