

**COMPARAISON CANADIENNE
ALIMENTATION ÉLECTRIQUE
BALISAGE 2004-2005**

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1 INTRODUCTION ET MÉTHODOLOGIE

1 Dans un contexte où le Distributeur s'est engagé à réviser les conditions de
2 service liées à l'alimentation en électricité et les frais afférents, il est intéressant
3 de faire un survol des conditions de service et des pratiques d'affaires
4 d'entreprises canadiennes d'énergie en matière d'alimentation en électricité. Ce
5 survol permet au Distributeur non seulement de comparer ses conditions à celles
6 d'entreprises comparables mais également de pouvoir s'inspirer de certaines
7 conditions de service si ces conditions s'avèrent facilitatrices et simplificatrices.

8 À cette fin, le Distributeur a procédé à deux enquêtes qui se sont échelonnées de
9 novembre 2004 à février 2005. Une première recherche portant spécifiquement
10 sur les frais liés aux activités de raccordement d'une alimentation en électricité a
11 été effectuée par Internet et a recueilli les données disponibles et accessibles
12 auprès de quatre entreprises d'électricité au Canada. La deuxième enquête
13 structurée autour d'un questionnaire comportant 35 questions a été réalisée
14 auprès de six entreprises canadiennes d'électricité. Cette deuxième enquête
15 visait à dégager les principales conditions normatives en vigueur au sein des
16 entreprises canadiennes en matière de raccordement, de branchement et de
17 prolongement de réseau. Le présent document présente les résultats de ces
18 deux enquêtes.

2 VOLET 1 : FRAIS DE SERVICE LIÉS À L'ALIMENTATION EN ÉLECTRICITÉ

1 Une première recherche, effectuée par Internet, a permis de recenser les frais de
2 raccordement appliqués par quatre entreprises électriques canadiennes, soit :
3 Hydro One, Manitoba Hydro, Énergie NB Power et BC Hydro.

4 Le tableau 1 suivant résume les résultats obtenus. Les entreprises canadiennes
5 examinées sont comparées à Hydro-Québec Distribution sur la base de la grille
6 actuelle. Les principaux frais recensés touchent aux activités suivantes :

- 7 • nouveau raccordement permanent ;
- 8 • raccordement temporaire ;
- 9 • raccordement lié aux activités recouvrement ;
- 10 • et les autres types d'activités pour lesquelles les entreprises canadiennes
- 11 facturent des frais au client.

1

TABLEAU 1

2

FRAIS LIÉS AU RACCORDEMENT ET AUTRES – 2004

ENTREPRISES :	HYDRO-QUÉBEC	HYDRO ONE	MANITOBA HYDRO	ÉNERGIE NB POWER	BC HYDRO
	QUÉBEC	ONTARIO	MANITOBA	NOUVEAU-BRUNSWICK	COLOMBIE BRITANIQUE
Activités / Références	Tarifs du Distributeur, p.149-150.	Appendice D	Schedule 1-2, electrical permit fees, p.51 @ 53.	o-1 @ o-5	b-6, b-7, b-20, b-37, b-38
Nouveau raccordement permanent	200 \$	210 \$ @ 490 \$	20 \$ @ 280 \$	Raccordement du branchement initial ou temporaire = 60,11 \$ Raccordement court terme < un mois, consommation non mesurée = 63,66 \$ @ 382,28 \$	Raccordement = frais varient selon l'installation à alimenter, minimum 312 \$ jusqu'à l'estimé du coût des travaux .

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ENTREPRISES :	HYDRO-QUÉBEC	HYDRO ONE	MANITOBA HYDRO	ÉNERGIE NB POWER	BC HYDRO
	QUÉBEC	ONTARIO	MANITOBA	NOUVEAU-BRUNSWICK	COLOMBIE BRITANIQUE
Raccordement temporaire	Raccordement 100 \$ Débranchement 100 \$ <u>Souterrain</u> : L'installation du branchement est facturée au coût des travaux	515 \$	60 \$ @ 200 \$ ou selon le type de travaux à réaliser.	Frais de branchement initial ou temporaire = 60,11 \$	Raccordement = coûts des travaux.
Raccordement recouvrement	Minimum 50 \$	Jusqu'à 120 \$.	50 \$ durant heures régulières de travail.	33,97 \$	32 \$

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ENTREPRISES :	HYDRO-QUÉBEC	HYDRO ONE	MANITOBA HYDRO	ÉNERGIE NB POWER	BC HYDRO
	QUÉBEC	ONTARIO	MANITOBA	NOUVEAU-BRUNSWICK	COLOMBIE BRITANIQUE
Autres types	Frais de mise sous tension à la suite d'une demande de cessation = minimum 130 \$. <u>Autres travaux :</u> Trois types de frais s'appliquent : fixes, coûts estimés ou réels.	Test de mesurage = minimum 25 \$. Lecture spéciale de compteur = 85 \$.	Débranchement / Rebranchement pour rénovation = 220 \$. Taux horaires = 55 \$/h. & 65 \$/h- hors des heures régulières de travail. Test mesurage = 35 \$ @ 130 \$.	Rebranchement saisonnier = 71,96 \$ Rebranchement de l'alimentation = 33,97 \$ Frais d'appel de service = 33,97 \$ – hors des heures normales de travail = 49,37 \$.	Frais additionnels pour l'installation d'un 2 ^e compteur. = 25 \$/cpt lors de l'installation initiale. Interventions subséquentes -- installation du compteur = 77 \$ premier et 25 \$ additionnel "Net metering" inspection = max. 600 \$ Rebranchement par compteur = 64 \$ @ 217 \$ hors ou durant les heures de travail.

2 Le balisage indique que les entreprises canadiennes d'électricité consultées ainsi
 3 que le Distributeur réclament des frais à leurs clients pour les activités liées à
 4 l'alimentation en électricité dont les frais pour raccordement permanent, pour
 5 raccordement temporaire et pour le raccordement à des fins de recouvrement.
 6 Certes, le niveau de ces frais varie largement d'un distributeur à un autre.
 7 Plusieurs facteurs peuvent expliquer ces écarts. Entre autres, les données de
 8 balisage ne permettent pas de savoir quels coûts sont pris en compte, quelle
 9 portion de ces coûts est recouverte ou non par les tarifs, quels processus sont
 10 impliqués ou quelles fins sont poursuivies au travers de l'imposition des divers
 11 frais. L'interprétation des résultats des exercices de balisage pour différentes

1 entreprises d'électricité doit donc être faite avec prudence. Les résultats de cet
2 exercice fournissent cependant des indications sur le niveau des frais demandés.
3 À l'égard des frais, le Distributeur se distingue des autres entreprises d'électricité
4 au Canada consultées en ce qu'il impose des frais fixes de 200 \$ et de 100 \$ au
5 client lors de raccordement permanent ou lors de raccordement temporaire, peu
6 importe la complexité des travaux demandés. À l'opposé, les entreprises
7 canadiennes proposent des frais variés et variables selon le type des travaux à
8 réaliser.

3 VOLET 2 : CONDITIONS NORMATIVES

1 Six entreprises canadiennes ont été sollicitées pour répondre à un questionnaire
2 de 35 questions. Ces entreprises sont: BC Hydro, Fortis Alberta, Hydro One,
3 Manitoba Hydro, Énergie NB Power, SaskPower. Toutefois, BC Hydro et
4 SaskPower n'ont pas retourné le questionnaire.

5 Le questionnaire visait à colliger de l'information sur les conditions normatives
6 rattachées à l'alimentation en électricité auprès de distributeurs d'électricité au
7 Canada. Ce questionnaire comprenait quatre sections :

- 8 • Information générale
- 9 • Conditions de raccordement d'une installation électrique
- 10 • Conditions liées aux prolongements et modifications de réseau
- 11 • Partage des coûts liés aux prolongements et modifications de réseau

12 L'annexe 1 du présent document reprend l'ensemble des réponses fournies par
13 les quatre entreprises ayant répondu. Il importe ici de faire ressortir les
14 principaux faits saillants qui se dégagent des réponses fournies classés par
15 section du questionnaire.

3.1 Information générale

16 Deux éléments méritent d'être souligné. Tout d'abord, toutes les entreprises
17 canadiennes ayant répondu sont propriétaires du réseau électrique de
18 distribution. Cependant, contrairement à Hydro-Québec, la majorité de ces
19 entreprises (3 sur 4) ne font pas de distinction en matière de service
20 d'alimentation entre le branchement et le réseau de distribution. Aussi le
21 Distributeur doit-il définir des conditions spécifiques de branchement et de

1 raccordement distinctes, ce qui n'est pas requis dans le cas des trois autres
2 entreprises consultées.

3.2 Conditions de raccordement d'une nouvelle installation

3 De façon générale, les quatre entreprises consultées offrent à tout client qui
4 demande à être rattaché au réseau, une infrastructure de base. Les coûts
5 rattachés à cette infrastructure de base sont versés dans les coûts du service du
6 distributeur, lors de raccordement initial. Ils ne sont pas facturés autrement que
7 par le biais des tarifs. Au-delà de l'infrastructure de base, des frais sont
8 cependant prévus.

9 Les composantes de l'offre de base ou de référence varient largement d'une
10 entreprise à l'autre. Dans certains cas, comme celui de Manitoba Hydro, par
11 exemple, en milieu urbain, c'est au-delà de 25 mètres de conducteurs que les
12 clients doivent assumer des frais tandis qu'une exemption de 210 mètres de
13 conducteurs s'applique en milieu rural. Dans le cas d'Hydro-Québec, il s'agit de
14 30 mètres. L'entreprise Fortis Alberta se distingue lors de raccordements. En
15 effet, elle réclame une contribution au client tenant compte des coûts d'extension
16 à la charge du client dégrevés des coûts partagés par les clients et des coûts
17 d'investissement supportés par le distributeur.

18 Comme Hydro-Québec, certaines entreprises offrent des options additionnelles
19 payables par le client, parmi lesquelles figurent entre autre l'option du réseau
20 souterrain ou des compteurs avancés. En général, les distributeurs réalisent les
21 travaux et supportent les coûts de raccordement. Lors de raccordement
22 permanent et de raccordement temporaire, des frais dans certains cas fixes,
23 dans d'autres équivalents aux coûts réels supportés pour effectuer les travaux,
24 sont aux frais des clients. Selon certaines modalités, les contributions alors
25 versées par les clients peuvent être remboursables. Il en est ainsi de plusieurs
26 des entreprises dont Fortis Alberta qui accepte de rembourser une partie de la

1 contribution au client dès lors où un client additionnel se greffe sur la même
2 ligne.

3 Les modalités de paiement de la contribution varient largement d'une entreprise
4 à l'autre. Certaines demandent le paiement avant de débiter les travaux,
5 d'autres allouent un délai comparable au délai de paiement d'une facture, mais
6 Énergie NB Power ne requière aucun paiement du client jusqu'à 90 mètres de
7 conducteurs.

8 À l'exception de Énergie NB Power, un client qui souhaite être alimenté en
9 souterrain devra généralement payer le coût différentiel entre le branchement en
10 aérien et en souterrain, et ce même si le distributeur reste propriétaire des actifs.
11 Dans le cas spécifique de Énergie NB Power, le client est responsable de fournir,
12 d'installer et de maintenir le branchement souterrain.

3.3 Conditions liées aux prolongement et modification de réseau

13 Généralement, l'infrastructure de base ou de référence est aérienne. Toutefois,
14 Manitoba Hydro offre également le réseau en souterrain. Pour Hydro One , le
15 type de réseau est davantage guidé par une évaluation de la rentabilité du
16 prolongement ou de la modification demandée que par le type de réseau qui est
17 offert. C'est donc la valeur actualisée nette du projet qui fixe les choix
18 d'investissement.

19 Sur la base de l'échantillon de distributeurs canadiens consultés, il ressort
20 clairement que la contribution demandée au client inclut des frais d'administration
21 ou des coûts indirects (coûts de gestion, de support technique...). Globalement
22 la majoration pour ces frais n'excède pas 39 %. Tel que mentionné lors des
23 raccordements, les distributeurs sont responsables des travaux de construction
24 en aérien. Cependant, il arrive que des entrepreneurs soient engagés par les
25 distributeurs comme dans les cas de Fortis Alberta et de Hydro One pour réaliser
26 certaines parties des travaux de prolongement. De la même manière, les

1 entreprises Fortis Alberta et Énergie NB Power font supporter aux clients, les
2 coûts de la partie des travaux civils et électriques. Dans le cas d'Hydro-Québec,
3 le client supporte les coûts d'ingénierie associés aux travaux civils alors que le
4 Distributeur absorbe le coût des travaux pour la partie électrique. Toutes les
5 entreprises sollicitées offrent au client la possibilité d'être remboursé selon la
6 nature des interventions qui ont occasionné une contribution du client. Ce
7 remboursement par les entreprises canadiennes d'énergie est généralement
8 réalisé à l'intérieur de cinq ans.

9 Deux entreprises consultées (Hydro One et Énergie NB Power) offrent la
10 possibilité d'installer des lignes de relève à la demande du client. Ces lignes sont
11 considérées comme des options payables à 100 % par le requérant.

ANNEXE 1 - RÉSULTATS DU QUESTIONNAIRE

1 "Hydro-Québec is working on a proposition in favour of a change in the
2 conditions governing the supply of electricity in Québec, more specifically
3 regarding the expansion of its network. Thus we ask for your participation in this
4 study in order to support our proposition with business practices encountered
5 elsewhere in Canada.

6 Please let us know if you have any objections that Hydro-Québec uses your
7 answers within his cause.

8 The companies solicited to participate to the study are : BC Hydro, Fortis Alberta
9 , Hydro One, Manitoba Hydro, Énergie NB Power, SaskPower."

10 The questionnaire comprises 4 sections: General information, New overhead and
11 underground connection, Extension and modification of the system, Other types
12 of expenses.

1 **A- General data about companies**

2 **1. Are you an owner of the electric line (distribution system)?**

	Yes	No	If no, the name of the supplier.
Fortis Alberta	X		
Hydro One	X		
Manitoba Hydro	X		
Énergie NB Power	X		
Hydro-Québec	X		

3 **2. Do you make a distinction between the electric distribution system and the connection of an electric line?**

	Yes	No	If yes, what distinction?
Fortis Alberta	X		Connection process (and connection fees) are initiated by Retailers.
Hydro One		X	
Manitoba Hydro		X	
Énergie NB Power		X	
Hydro-Québec	X		<p>Notion of service loop and distribution system :</p> <p>Service loop : the circuit extending Hydro-Quebec's system from its distribution or transmission line to connection point.</p> <p>System : Any portion of a Hydro-Québec power line supplying more than one connection point ...</p>

1 **B- New overhead connection**

2 **3. Which basic infrastructure is included by your company to supply a customer?**

	Please describe – Overhead service loop.
Fortis Alberta	Customer contribution = customer extension cost +/- Customer shared costs – Company Investment (see attached Appendix “B”)
Hydro One	<p>Where a written request has been made to Hydro One to connect a Building that Lies Along Hydro One’s Distribution System, Hydro One is required to provide a Connection. Hydro One provides a Basic Connection at no charge. The Basic Connection consists of:</p> <ol style="list-style-type: none"> 1. supply and installation of standard overhead transformation which includes secondary buss extensions or installations complete with conductor and anchoring; 2. supply and installation of standard metering; 3. an estimate and layout for the new service; 4. connection of the Secondary or Primary Service at described Demarcation Points; and 5. for year-round residential and seasonal residential classes only, the supply and installation of up to 30 metres overhead secondary conductor for up to a 200 amp service, or an equivalent credit towards underground conductor. Year-round residential and seasonal residential Customers with Primary Services will be credited for the 30 meters of secondary wire.
Manitoba Hydro	<p>Residential in Subdivision – overhead/underground service (25 metres)</p> <p>Residential in Rural Area – 210 metres of overhead infrastructure on private property(poles, wire and transformation)</p> <p>Commercial service – 210 metres of overhead infrastructure with a service drop to customer building</p>
Énergie NB Power	N/A

Hydro-Québec	<ul style="list-style-type: none"> ▪ Generally, the reference system of distribution is overhead. ▪ Hydro-Québec will be credited up to 30 metres of a service loop connection. The portion of the service loop exceeding 30 metres of conductor is at the applicant's expense.
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1 **4. Others than the basic infrastructure, do you offer optional products?**

	Yes	No	If yes, which ones?
Fortis Alberta		X	
Hydro One	X		<p>A Basic Connection does not include the following additional costs for which the Customer shall pay Hydro One:</p> <p>A) for year-round residential and seasonal residential Customer classes – the cost difference between overhead and underground secondary wire;</p> <p>B) incremental costs associated with the supply and installation of underground transformation;</p> <p>C) the supply and installation of poles, anchors, all secondary conductor over 30 metres, hardware, and structures, as required on Customer's property; or</p> <p>D) the costs of all changes required to the Distribution System exclusive of the secondary bus installation. These costs include pole changes, anchoring or hardware changes.</p>
Manitoba Hydro		X	
Énergie NB Power	X		Water heater rental, street light rental, dusk-to-dawn light rental ; flood light rental
Hydro-Québec	X		Underground connection : the customer pays for the civil engineering work and for the additional costs of the electric work.

1 **5. Who conducts the connection?**

	The Distributor	The customer	A Third party	Which one?
Fortis Alberta	X			
Hydro One	X			
Manitoba Hydro	X			
Énergie NB Power	X			
Hydro-Québec	X			

2 **6. Who has the ownership of the connection?**

	The Distributor	The customer	A Third party	Which one?
Fortis Alberta	X			
Hydro One	X			
Manitoba Hydro	X			
Énergie NB Power	X			
Hydro-Québec	X			Unless otherwise specified.

3 **7. Who assumes the costs of the connection?**

	The Distributor	The customer	Both	A Third party	Which one?
Fortis Alberta	X				
Hydro One	X				
Manitoba Hydro	X				
Énergie NB Power	X				
Hydro-Québec	X	X			The customer pays for the connection costs of the service loop and the civil engineering work .

1 8. How is established the cost of the connection?

	By a fixed amount	By an estimate	By a real cost	Please detail the calculation method.
Fortis Alberta		X		The cost of the extension, customer's transformer, metering, and any system improvement because of the customer's load.
Hydro One			X	Pricing is determined based on work compatible units required to perform the work.
Manitoba Hydro	X	X	X	Based on distance allowance for residential and for commercial, the value of the first three years revenue.
Énergie NB Power			X	
Hydro-Québec	X	X		The cost of the work according to the portion of the service loop exceeding 30 metres of conductor.

1 9. For different types of connection, is there a distinction of treatment by :

	Types of voltage	Types of use	Residential property developers	Types of electric installations	During increase of electric loads	Which one?
Fortis Alberta				X		Permanent facilities are invested in Temporary facilities are the customer's cost.
Hydro One			X			Not treated as 'Lie Along' customers.
				X		Temporary services that become permanent are charged a temporary service fee. Otherwise temporary services are charged actual costs.
					X	Customer is charged actual costs for any work on the distribution system.
Manitoba Hydro	X					Single phase (residential) Three Phase (Commercial)
		X				Most are revenue based with the exception of a rural residential customer which is a fixed distance allowance.
			X			Must pay the full cost up front and a portion or all is refunded as homes are connected
				X		Temporary costs include the cost of install and removal.
					X	Additional revenue is applied against the cost of the new infrastructure
Énergie NB Power						No distinction.
Hydro-Québec	X			X	X	Temporary service supplies

1 **10. What are the payment terms and methods of payment offered by the Distributor?**

Fortis Alberta	N/A
Hydro One	Payments are fixed and upfront.
Manitoba Hydro	30 day billing for approved customers or cash up front
Énergie NB Power	No payment required up to 90 meters.
Hydro-Québec	Within 21 days of the billing date.

2 **11. Are the costs paid by the customer refundable?**

	Yes	No	If yes , based on what criteria?
Fortis Alberta	X		If another customers shares a line paid for by the first customer.
Hydro One		X	
Manitoba Hydro	X		If revenue expectations are exceeded for commercial, there may be a refund. Residential developers are refunded as homes are connected.
Énergie NB Power			No cost to customer for overhead service loop up to 90 meters. #See above
Hydro-Québec		X	For the service loop.

1 **12. Is there a written agreement between the parts?**

	Yes	No	If yes, we would highly appreciate to receive an example.
Fortis Alberta			N/A
Hydro One	X		
Manitoba Hydro	X		
Énergie NB Power		X	
Hydro-Québec	X		For certain types of electric installations.

2 **Connection of the service loop**

3 **13. What is the fee charged to the customer for the connection of the service loop?**

	Cost	If it's more than one, please specify
Fortis Alberta	\$0	See Appendix A "Fee Schedule"
Hydro One	\$0	Customer pays for costs above 30 m of overhead or incremental cost of underground.
Manitoba Hydro		There is no cost for residential that are less than 25 metres
Énergie NB Power	\$0	
Hydro-Québec	200 \$	New permanent connection of the service loop other than a special service loop for autonomous electrical systems.

1 a. If there is a fee charged to the customer, how is the amount established?

	A fixed amount	The actual cost of the connection	An estimate of the actual cost	If yes , we would highly appreciate to receive an example.
Fortis Alberta			X	
Hydro One				N/A
Manitoba Hydro			X	
Énergie NB Power				N/A
Hydro-Québec	X		X	According of the nature of the works.

2 b. Is there a distinction of treatment by ?

	Types of voltage	Types of use	Types of electric installations	Which one ?
Fortis Alberta				N/A
Hydro One				N/A
Manitoba Hydro			X	There is a charge for underground connections
Énergie NB Power				N/A
Hydro-Québec		X	X	There are costs for the underground service.

1 **14. What are the payment terms and methods of payment offered by the Distributor ?**

Fortis Alberta	N/A
Hydro One	N/A
Manitoba Hydro	Cash up front
Énergie NB Power	N/A
Hydro-Québec	Within 21 days of the billing date.

2 **15. Are these rules applied in the same way for :**

	Modification or movement of the connection	Extension of the connection	Removal of the connection	
Fortis Alberta				N/A
Hydro One				N/A
Manitoba Hydro	X	X		
Énergie NB Power		X		
Hydro-Québec	X	X		

1 **16. Are the conditions described from question 1 to 15 for a New Overhead Connection different is the customer is**
 2 **requesting for a New Underground Connection?**

	Yes	No	If yes , please describe briefly what element would change?
Fortis Alberta	X		Customers electrician make physical connection to U/G padmount transformer bus-bars under the supervision of Fortis Alberta
Hydro One	X		Customer is charged incremental costs of underground.
Manitoba Hydro	X		The cost of the overhead is applied against the cost of the underground service as an allowance.
Énergie NB Power	X		For underground connection, the customer is responsible to supply, install, own and maintain their underground service loop. A sufficient length of wire must be provided at the base of NB Power's supply device (eg. Pole, padmount transformer, or service box) to allow NB Power to connect to our facilities.
Hydro-Québec	X		For an underground supply, the customer pays the differential cost between an underground system and an overhead system.

1 **C- Extension and modification of the system**

2 **17. Which basic infrastructure is provided by your company to supply a customer when a continuation or a**
 3 **modification is necessary, is :**

	Overhead	Underground	Overhead and Underground	Others	Others, specify.
Fortis Alberta	X				
Hydro One				X	Where a written request has been made to Hydro One to connect a building that is in Hydro One's service territory, Hydro One is required to make an "offer to connect". For an Expansion, Hydro One will perform an economic evaluation using a discounted cash flow model in compliance with Appendix B of the Distribution System Code to determine the Customer's share, if any, of the equipment, labour, material and on-going maintenance costs of the Expansion (the "Expansion Costs"). If the Present Value of the future revenue is not sufficient to recover the Expansion Costs, the Customer will be required to pay a capital contribution calculated in a manner consistent with the requirements of the Distribution System Code. The capital contribution shall not exceed the Customer's share of the difference between the Present Value of the Expansion Costs and the Present Value of the projected revenue.
Manitoba Hydro			X		
N-Brunswick Power	X				
Hydro-Québec	X				

1 **18. Others than the basic infrastructure, do you offer optional products?**

	Yes	No	If yes , which ones?
Fortis Alberta	X		Certain metering structures (e.g. padmount metering for <500 kVA) if requested by customer, transfer schemes, and underground.
Hydro One	X		<p>A Basic Connection does not include the following additional costs for which the Customer shall pay Hydro One:</p> <ul style="list-style-type: none"> (a) for year-round residential and seasonal residential Customer classes – the cost difference between overhead and underground secondary wire; (b) incremental costs associated with the supply and installation of underground transformation; (c) the supply and installation of poles, anchors, all secondary conductor over 30 metres, hardware, and structures, as required on Customer's property; or (d) the costs of all changes required to the Distribution System exclusive of the secondary bus installation. These costs include pole changes, anchoring or hardware changes.
Manitoba Hydro		X	
Énergie NB Power	X		Underground infrastructure is optional at additional cost
Hydro-Québec	X		According to the nature of the works to be realized, the customer pays the differential cost between an underground system and an overhead system.

- 1 **19. Within the framework of establishing the cost of network extension or modification, are the administration fees or**
 2 **indirect costs (such as the management costs , technical support, depreciation of building, interest charges,...) included?**

	Yes	No	If yes , what is the proportion of these administration fees or indirect costs included in the costs of work?
Fortis Alberta	X		Less than 20%
Hydro One	X		Less than 20%
Manitoba Hydro	X		Don't know
Énergie NB Power	X		30% to 39%
Hydro-Québec	X		30 %

- 3 **20. Is there an additional contribution included in the overall cost of the network extension or modification to cover a**
 4 **return on the equity or profit margin?**

	Yes	No	
Fortis Alberta		X	
Hydro One	X		
Manitoba Hydro		X	
Énergie NB Power		X	
Hydro-Québec		X	

1 **Overhead network system**

2 **21. Who conducts the extension of an electric line – system?**

	The Distributor	The customer	A Third party	Which one ?
Fortis Alberta	X			
			X	Fortis Alberta Contract crews under unit price contracts
Hydro One	X			
			X	Qualified contractor acceptable to Hydro One.
Manitoba Hydro	X			
Énergie NB Power	X			
Hydro-Québec	X			

1 **22. Who has the ownership of the extension?**

	The Distributor	The customer	A Third party	Which one ?
Forties	X	X		(only if primary metered ; e.g. Mine sites, ski hills)
Hydro One	X			
Manitoba Hydro	X			
Énergie NB Power	X			
Hydro-Québec	X			

2 **23. Who assumes the cost of the extension or modification to the network system?**

	The Distributor	The customer	Both	A Third party	How is the cost shared? or Which one?
Fortis Alberta	X				(only if previously identified as planned system upgrade)
		X			(Normally the case)
				X	(e.g. Rural Electric Association (REA) system cost sharing on Municipal line moves)
Hydro One			X		Based on the results of the Economic Evaluation Model.
Manitoba Hydro			X		Based on revenue generated by the business

Énergie NB Power			X	Less than 1.6 km – NB Power pays 90 meters, customer pays 80% of remainder More than 1.6 km – NB Power pays 90 meters and customer pays 100% of remainder.
Hydro-Québec			X	According of the type of use and the nature of the works to be realized.

1 **24. Who assumes the civil infrastructure and electric costs?**

	The Distributor	The customer	Both	A Third party	How is the cost shared? or Which one?
Fortis Alberta		X			
Hydro One					N/A
Manitoba Hydro			X		Based on revenue generated by the business
Énergie NB Power		X			
Hydro-Québec			X		For Hydro-Québec : electrical work /// For the customer : the civil engineering work .

1 25. Describe the type of investment "allowance" which the Distributor is ready to assign the customer entrance (if
 2 required).

Fortis Alberta	See attached Appendix "B"
Hydro One	Amount based on PV of revenue from customer as determined by customer load.
Manitoba Hydro	Based on the revenue generated over the first 3 years of use.
Énergie NB Power	90 meters of overhead service
Hydro-Québec	<ul style="list-style-type: none"> ■ See Hydro-Québec electricity rates and their conditions of application, division XVII ; ■ According of the type of use : domestic or other than domestic.

3 26. How is established the cost of the extension / modification to the system?

	By a fixed amount by km line of the electric system	By an estimate	By a real cost	
Fortis Alberta		X		
Hydro One			X	
Manitoba Hydro	X	X		
Énergie NB Power		X		
Hydro-Québec		X		

1 27. For any extension, or modification of the system, do you make a treatment distinction by :

	Types of tensions	Types of use	Residential property developers	Types of electric installations	During increase of electric loads	Which one?
Fortis Alberta		X				
			X			for underground residential subdivisions, the developer designs and installs to Fortis Alberta specs
Hydro One						N/A
Manitoba Hydro		X				All
				X		All
					X	All
Énergie NB Power						No distinction for above
Hydro-Québec		X	X	X		

1 **28. For these costs, which are the modes and the payment terms offered by the Distributor?**

Fortis Alberta	Customer Contribution is required up-front before construction start
Hydro One	Payments are fixed and upfront.
Manitoba Hydro	30 day bill or cash up front
Énergie NB Power	Payment in advance by certified cheque, bank draft
Hydro-Québec	According of the type of use and the nature of the works to be realized (to pay in a single payment or in 30 two-monthly payments).

2 **29. Are these costs (paid by the customer) refundable?**

	Yes	No	If yes , by virtue of what criteria?
Fortis Alberta	X		For commercial pre-service (e.g. Ind. Subdivision) <u>only</u> . The developer/customer is refunded based on future connected commercial load if excess investment funds are available. Also line share.
Hydro One		X	<p>If a Customer is added, after November, 2000, and within 5 years of the original construction, to an Expansion that was constructed and paid for by another Customer, Hydro One may use the economic evaluation model to calculate the capital contribution of both the original Customer and the new Customers, based on the forecasted load and revenue of the new Customer.</p> <p>The new Customer will contribute its fair share of the original Expansion costs prior to the Connection for the shared portion of the line, and the original contributor or present property owner, as the case may be, will be entitled to a rebate without interest based on the apportioned benefit for the remaining period. The apportioned benefit shall be determined by considering such factors as the relative load level and the relative line length (in proportion to the line length being shared by both parties). No rebates will occur after the 5-year Connection horizon has expired.</p>

Manitoba Hydro	X		Delay, conditions and schedule of due dates
Énergie NB Power	X		Customer is paid a fixed rate refund for any customer that connects to the line extension within the first 5 years.
Hydro-Québec	X		According to the conditions defined by type of use. Generally, the customer has right to an annual refunding. This refunding is for five consecutive years or according to terms of the contract; according to its consumption or of addition an electrical installation.

1 **30. Does it exist a written agreement between the parts?**

	Yes	No	Comments
Fortis Alberta	X		For loads < 75kW, customers sign a quotation proposal letter Loads => 75 kW require a signed service contract.
Hydro One			N/A
Manitoba Hydro	X		
Énergie NB Power		X	
Hydro-Québec	X		

1 **31. If the tension of an electric line is converted, how is this situation handled with the customer?**

Fortis Alberta	The distribution utility pays for the cost of the voltage conversion.
Hydro One	N/A
Manitoba Hydro	The cost of the infrastructure is billable and the revenue is applied as an allowance.
Énergie NB Power	N/A
Hydro-Québec	Hydro-Québec contributes at the costs of conversion.

2 **32. If a project of modification or extension of an electric line is abandoned, how are the costs already committed**
3 **handled?**

Fortis Alberta	Customer Contribution refund less actual costs incurred (material shipping, survey, detail design time)
Hydro One	Materials would be returned to inventory and labour would be expensed.
Manitoba Hydro	Considered sunk costs and no charges to customer.
Énergie NB Power	N/A
Hydro-Québec	N/A

1 **33. Does the Distributor offer an electric supply backup?**

	Yes	No	If yes, under which conditions?
Fortis Alberta		X	
Hydro One	X		Customer pays 100% of all costs.
Manitoba Hydro		X	
Énergie NB Power	X		Optional facilities at additional cost to the customer.
Hydro-Québec	X		Under certain conditions.

2 **34. Are the conditions described from question 21 to 33 for a New Overhead Connection different is the customer is**
3 **requesting for a New Underground distributive system?**

	Yes	No	If yes, please describe briefly what element would change?
Fortis Alberta		X	
Hydro One	X		Customer pays incremental cost of overhead versus underground.
Manitoba Hydro		X	
Énergie NB Power	X		NB Power investment is equal to the estimated cost of 90 meters of overhead extension. Customer pays 100% of remainder, non refundable.
Hydro-Québec	X		For an underground supply, the customer pays the differential cost between an underground system and an overhead system.

1 **D- Other types of expenses**

2 **35. Are there other expenses (other than those previously quoted) that are charged to the customer?**

3

	Yes	No	If yes, please list :
Fortis Alberta	X		See attached Appendix A « Fee Schedule »
Hydro One	X		Customers that request metering above standard such as interval metering are charge the incremental costs.
Manitoba Hydro		X	
Énergie NB Power	X		See " section – O " terms and conditions of distribution.
Hydro-Québec	X		See Hydro-Québec electricity rates and their conditions of application, division XVII.

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