Réponse à l'engagement #1 du RNCREQ : Déposer les documents traduits relativement à Hilo qui ont été envoyés à Synapse

- Version caviardiée selon D-2022-137 -

Contenu

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N^{O} 1 DE LA RÉGIE

Le Distributeur demeure à l'affût des opportunités de marché et du contexte énergétique pour faire évoluer son offre, et ce, dans le respect de ses critères de rentabilité à rencontrer.

Il n'exclut donc pas la possibilité de développer de nouvelles interventions dans l'avenir, incluant des initiatives liées à la conversion à l'électricité.

8.8 Veuillez concilier et expliquer le rythme de croissance annuelle des prévisions de besoins en puissance pour le *chauffage des locaux Commercial* beaucoup plus faible, soit de 0,51 % en moyenne pour les 10 prochaines années, tel que calculé à la référence (ix), par rapport au rythme de croissance annuelle de 1,74 % enregistré au cours des 9 dernières années, tel que calculé à la référence (viii), considérant l'impact des programmes de conversion à l'électricité et d'efficacité énergétique précisé à la réponse précédente ainsi que l'impact du vieillissement de la population favorisant la croissance du PIB tertiaire, mentionné au préambule (x).

Réponse :

Le Distributeur tient à préciser que les rythmes de croissance historique et prévue doivent être comparés avec prudence.

L'analyse historique des données de consommation d'électricité au secteur Commercial montre que celles-ci sont de plus en plus sensibles aux conditions climatiques sur la période de 2008 à 2017. Cette augmentation se reflète dans l'évolution, entre les hivers 2008-2009 à 2017-2018, de l'estimation des besoins en puissance pour le chauffage des locaux Commercial, soit l'usage qui est sensible aux conditions climatiques. L'augmentation de cette sensibilité peut provenir de plusieurs sources, dont l'amélioration de la qualité des données mensuelles de consommation par le biais du déploiement des compteurs IMA sur la période historique.

Quant à la croissance prévue, elle s'appuie uniquement sur les déterminants de la prévision du chauffage des locaux au secteur Commercial, tels que l'accroissement des abonnements, le réchauffement climatique, l'augmentation du taux de diffusion des équipements et l'efficacité énergétique.

PROGRAMME HILO- CHOIX DE L'AGRÉGATEUR

9. Références : (i) Pièce B-0005, p. 12;
(ii) Pièce B-0009, p. 21;
(iii) Pièce B-0017, p. 6.

Préambule :

(i) « Pour compenser la hausse attendue des besoins en puissance, le Distributeur entend prioriser le développement des mesures d'efficacité énergétique, en particulier les mesures de gestion de la demande de puissance (GDP) pour toutes les catégories de clients.

Pour ce faire, il misera notamment sur une nouvelle gamme de produits et services qui seront offerts à compter de 2020 par l'intermédiaire de la filiale Hilo d'Hydro-Québec. L'effacement de la demande en période de pointe sera réalisé au moyen d'outils technologiques qui permettront aux clients de gérer la consommation de certaines charges – principalement le chauffage. Il est prévu que cette nouvelle offre pourrait réduire les besoins en puissance de plus de 600 MW d'ici 2028. » [nous soulignons]

(ii) « La filiale Hilo d'Hydro-Québec assurera la mise en marché et l'exploitation d'outils technologiques permettant de contrôler la consommation de certaines charges. La livraison des services sera encadrée par un contrat de gré à gré entre la filiale et le Distributeur ».

LOOSE TRANSLATION

(iii) « Pour combler ses besoins en puissance et reporter l'acquisition d'approvisionnements de long terme, le Distributeur mise sur le développement de moyens de gestion de la demande de puissance (GDP). Il souhaite ainsi exploiter le potentiel de GDP pour toutes les catégories de clients, dont celui de la clientèle résidentielle, pour laquelle l'offre est plus limitée à ce jour.

Pour atteindre cet objectif, le Distributeur a réalisé plusieurs projets pilotes et projets de démonstration dans le passé qui ont confirmé le potentiel de la GDP pour le marché résidentiel et les efforts importants de commercialisation requis pour l'exploiter. En prenant en considération les limites de son périmètre d'activités réglementées et l'effort requis pour un déploiement de masse, il a choisi de mandater l'agrégateur Hilo, une filiale non réglementée en propriété exclusive d'Hydro-Québec, active dans le marché de la Maison intelligente pour développer le marché de la GDP résidentielle au Québec et contribuer à l'équilibre de son bilan de puissance. Constitué de spécialistes d'expérience en développement de nouveaux produits et d'entreprises technologiques, Hilo détient l'expertise commerciale et technologique pour déployer à grande échelle un service d'installation et de programmation de produits de domotique à la clientèle. La filiale a, de plus, pu bénéficier d'un transfert des connaissances acquises par le Distributeur, par le biais notamment des projets pilotes et des travaux réalisés pour le compte de ce dernier par les chercheurs de l'Institut de recherche d'Hydro-Québec (IREQ). Le recours à cet affilié, dédié au déploiement de ce nouveau moyen, permet un développement coordonné de services énergétiques parfaitement adaptés aux besoins du Distributeur afin d'assurer la fiabilité du réseau ainsi que la sécurité et la confidentialité des données. Le Distributeur est confiant que l'ensemble de ces éléments contribuera au succès de ce moyen de gestion de la puissance et justifie le recours à cette filiale.

Concrètement, Hilo offre un service clés en main de gestion de la demande d'électricité en périodes de pointe adapté aux besoins du Distributeur, tels qu'établis sur une base annuelle pour chacune des périodes hivernales. Pour ce faire, Hilo doit souscrire un nombre suffisant de participants et maintenir ce bassin actif afin de répondre aux besoins de puissance en périodes de pointe.

Le rôle du Distributeur consiste à définir ses besoins en MW effacés pendant les périodes de pointe du matin et du soir et à émettre à Hilo des avis pour des événements de GDP. Il doit

également suivre rigoureusement les résultats obtenus en termes de réductions de puissance. Pour ce faire, il demande à Hilo de démontrer sa capacité à rencontrer ses exigences par la soumission annuelle de différents documents, notamment :

un plan marketing 5 ans et ses mises à jour ;
le suivi des conditions d'admissibilité des participants ;
l'engagement en kW et en nombre de participants pour la prochaine année ; le calcul de la réduction de puissance réalisée.
» [nous soulignons]

Request :

The Distributor has chosen to enter into a non tendered contract with Hilo, an unregulated, wholly-owned subsidiary of Hydro-Québec (references (ii) and (iii)) to deploy the new power management method described in reference (iii) as an energy efficiency measure (reference (i)).

The Régie understands that the Distributor has chosen to enter into a non tendered contract with the Hilo aggregator and that this choice was made without prior recourse to the tendering procedure under Article 74.2 of the *Loi sur la Régie de l'énergie*. Please comment on the Régie's understanding.

Answer :

The Régie's understanding is correct.

9.1.1 In particular, please justify why, if applicable, the Distributor considers that this means of power management does not constitute a supply contract subject to that procedure. Please elaborate.

Answer :

The Distributor recalls that the obligation to tender in accordance with the procedure under Section 74.1 of the LRÉ applies to electricity supply contracts required to meet the needs of Quebec markets that exceed heritage electricity. This is not the case with Hilo. On the contrary, the service offered by the latter is aimed at saving money in the use of energy resources currently available to the Distributor's customers, thus delaying a tender for the acquisition of long-term supplies. It cannot therefore be an "electricity supply contract" as defined by the LRÉ.

The Régie's arguments in paragraph 173 of its decision D-2019-164 apply *mutatis mutandis*:

> **[173] In addition, for the purposes of its interpretation, the Régie considers it determinative of whether the Program is, on the one hand, a product of power resulting from peak demand reduction or interruption of participants and, on the other hand, that it is extracted from the resources**

> **already available. This latter feature is sufficient to justify the exemption of the TenderIng Procedure Program for the acquisition of new resources to provide the power required to meet the needs of Quebec markets.**

9.1.2 Please indicate whether the Distributor intends to enter into contracts with other aggregators than Hilo for the management of interruptible loads with residential customers. Please elaborate.

Answer :

The Distributor has chosen to mandate the Hilo aggregator for the large-scale deployment of demand management resources for residential customers. The

Distributor has not yet entered into such a contract with any aggregator other than Hilo. However, it does not rule out the possibility of doing business with other aggregators for the acquisition of power management assets from residential customers.

PROGRAMME HILO, TARIFICATION DYNAMIQUE ET OÉI

10. Références :

(i) Pièce B-0009, p. 18;
(ii) Suivi D-2017-140, État d'avancement 2018, p. 13;
(iii) Pièce B-0017, p. 10;
(iv) Dossier R-4057-2018, pièce B-0062, p. 90;
(v) Décision D-2019-157, p. 6 et 7;
(vi) Pièce B-0017, p. 7 et 8;
(vii) Suivi D-2014-037, Séance de travail Phase 1 – Tarifs domestiques tenue le 30 avril 2015, p. 4;
(viii) Site Web Hilo énergie, Testeurs Hilo, consulté le 10 janvier 2020;
(ix) Pièce B-0009, p. 21;
(x) Pièce B-0017, p. 6;
(xi) Site Web Hydro-Québec, Espace client – tarifs – tarification-dynamique, consulté le 13 janvier 2020;
(xii) Pièce B-0017, p. 9;
(xiii) Site Web Hilo énergie, Notre service – défis Hilo, consulté le 15 janvier 2020;
(xiv) Pièce B-0009, p. 21;
(xv) Dossier R-9001-2018, pièce B-0012, p. 4.

Préambule :

(i)

LOOSE TRANSLATION

TABLEAU 3.2 :
BILAN DE PUISSANCE

Hiver (1er décembre au 31 mars) En MW	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029
BESOINS À LA POINTE	38 783	39 489	40 196	40 550	40 815	41 056	41 139	41 064	41 287	41 522
Réserve pour respecter le critère de fiabilité	3 661	3 745	3 817	3 915	3 997	4 051	4 086	4 088	4 115	4 143
BESOINS À LA POINTE - INCLUANT LA RÉSERVE	42 445	43 234	44 013	44 464	44 812	45 106	45 225	45 152	45 402	45 666
APPROVISIONNEMENTS										
Approvisionnements planifiés										
Électricité patrimoniale	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442
Contrats avec HQP	1 100	1 450	1 500	1 500	1 500	1 500	1 100	1 100	500	500
Autres contrats de long terme	1 827	1 925	1 935	1 954	1 945	1 967	1 970	1 926	1 844	1 746
• Éolien (1)	1 467	1 477	1 486	1 486	1 486	1 486	1 489	1 445	1 405	1 361
• Biomasse	257	345	345	345	337	337	337	337	295	241
• Petite hydraulique	103	103	103	122	122	144	144	144	144	144
Gestion de la demande en puissance	1 315	1 779	2 217	2 491	2 838	2 983	3 004	2 751	2 781	2 815
• Électricité interruptible	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
• Interventions en gestion de la demande en puissance	315	779	1 217	1 411	1 658	1 683	1 584	1 331	1 361	1 395
- Programme GDP Affaires	*280*	*330*	*385*	*420*	*505*	*510*	*515*	*515*	*515*	*515*
- Interruption chaînes de blocs	*25*	*375*	*682*	*682*	*682*	*636*	*479*	*173*	*173*	*173*
- Tarification dynamique	*9*	*17*	*26*	*34*	*43*	*52*	*60*	*69*	*77*	*86*
- Hilo	*2*	*57*	*124*	*275*	*428*	*486*	*529*	*574*	*596*	*621*
• Moyens additionnels potentiels	0	0	0	80	180	300	420	420	420	420
Abaissement de tension	250	250	250	250	250	250	250	250	250	250
Puissance additionnelle requise										
Contribution des marchés de court terme	500	400	650	850	850	950	1 100	1 100	1 100	1 100
Approvisionnement de long terme	0	0	0	0	0	0	350	600	1 500	1 800

Note (1) : Contribution équivalente à 40 % de la puissance contractuelle, en vertu du service d'intégration éolienne.

Sans Hilo et Moyens additionnels potentiels

Contribution des marchés de court terme	**502**	**457**	**774**	**1 100**	**1 100**	**1 100**	**1 100**
1 100	**1 100**	**1 100**					
Approvisionnement de long terme	**0**	**0**	**0**	**105**	**358**	**636**	**1**
299	**1 594**	**2 516**	**2 841**				

La Régie, à titre illustratif, présente ci-haut la *Puissance additionnelle requise* sans la contribution des deux dernières initiatives proposées en gestion de la demande en puissance, soit sans Hilo et sans les moyens additionnels potentiels.

(ii) État d'avancement 2018 :

LOOSE TRANSLATION

TABLEAU 7 :
BILAN EN PUISSANCE

En MW	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Besoins à la pointe	**38 387**	**38 660**	**39 027**	**39 364**	**39 643**	**39 892**	**40 103**	**40 286**
Réserve pour respecter le critère de fiabilité	3 650	3 831	3 863	3 989	4 022	4 049	4 074	4 094
Besoins à la pointe - incluant la réserve	**42 038**	**42 491**	**42 890**	**43 352**	**43 665**	**43 941**	**44 176**	**44 380**
Électricité patrimoniale	**37 442**	**37 442**	**37 442**	**37 442**	**37 442**	**37 442**	**37 442**	**37 442**
Approvisionnements additionnels requis	**4 596**	**5 049**	**5 448**	**5 910**	**6 223**	**6 499**	**6 734**	**6 938**
HQP	**1 100**	**1 300**	**1 500**	**1 500**	**1 500**	**1 500**	**1 500**	**1 100**
• Base et cyclable	600	600	600	600	600	600	600	600
• Puissance rappelée	0	200	400	400	400	400	400	0
• Appel d'offres de long terme (A/O 2015-01)	500	500	500	500	500	500	500	500
Autres contrats de long terme	**1 827**	**1 875**	**1 966**	**1 976**	**1 976**	**1 968**	**1 968**	**1 968**
• Éolien (4 000 MW) [1]	1 467	1 477	1 477	1 486	1 486	1 486	1 486	1 486
• Biomasse et petite hydraulique	360	398	489	489	489	481	481	481
Gestion de la demande en puissance	**1 292**	**1 390**	**1 420**	**1 470**	**1 500**	**1 510**	**1 530**	**1 540**
• Électricité interruptible	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
• Interventions en gestion de la demande en puissance	292	390	420	470	500	510	530	540
Abaissement de tension	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**
Puissance additionnelle requise	**150**	**250**	**300**	**700**	**1 000**	**1 250**	**1 500**	**2 100**

Note (1) : Contribution équivalente à 40 % de la puissance contractuelle, en vertu du service d'intégration éolienne.

(iii)

Projet de démonstration de charges de chauffage à plinthes interruptibles	Terminé	Comme mentionné dans l'État d'avancement 2018 du Plan d'approvisionnement 2017-2026[4], l'analyse des résultats a démontré une réduction moyenne de 2 kW pendant les périodes de pointe lorsque tous les thermostats étaient contrôlés et une réduction moyenne de 1 kW lorsque quatre thermostats seulement étaient contrôlés.
Déploiement d'outils technologiques	Terminé	Le Distributeur a testé le contrôle des plinthes électriques par des thermostats communicants auprès de 75 clients à l'hiver 2018-2019. Les résultats ont permis de confirmer la réduction moyenne de 2 kW pendant les périodes de pointe. La solution technologique s'est avérée fonctionnelle.

(iv) « *Le gain en puissance (5,3 MW) correspond à un gain moyen annuel de 1,5 kW/résidence. Il est basé sur les résultats obtenus à la suite du projet de démonstration Charges de chauffage à plinthes interruptibles qui a pris fin en 2018. En effet, suite aux mesurages complétés en 2018 et l'analyse des données, le Distributeur a pu établir le gain moyen en puissance entre 1 et 2 kW/résidence en fonction du nombre de thermostats contrôlés chez les participants au projet.* » [nous soulignons]

(v) « [13] La Régie note, au tableau 3.2 de la pièce B-0009, la contribution significative de la filiale Hilo (Hilo) au bilan de puissance du Distributeur, passant de 2 MW en 2019-2020 à 621 MW en 2028-2029. La Régie demande au Distributeur de déposer, au plus tard le 13 décembre 2019 à 12 h, un complément de preuve à l'égard des produits et services offerts à compter de 2020 par cette filiale dont, entre autres, des outils technologiques qui permettront

aux clients de gérer leur consommation de certaines charges. La Régie demande,

notamment, les informations suivantes :
[…]

- *ventilation annuelle du nombre de participants, selon les hypothèses utilisées, entre la clientèle résidentielle, commerciale, industrielle et institutionnelle, précisant le type de charge (chauffage de l'espace, chauffage de l'eau, et autres charges pouvant faire l'objet d'un effacement);*
- *Description des hypothèses d'effacement, par participant et par type de charge [section 2.4] ;*
- *Description de la forme et du montant de rétribution prévu pour les participants [section 2.5] ;* » [nous soulignons]

(vi) « *Les choix technologiques et le rythme de déploiement de celles-ci sont du ressort de Hilo, les réductions de puissance pouvant provenir du contrôle des charges de chauffage de l'espace ou de l'air ou de toute autre source.*

Cela dit et comme mentionné au tableau 3.3 de la pièce HQD-2, document 3 (B-0009), Hilo privilégiera dans une première phase le contrôle à distance des thermostats intelligents des clients résidentiels participants pour réduire la demande résidentielle d'électricité en pointe (charge de chauffage de l'espace), soit l'usage ayant actuellement le plus grand potentiel de réduction de puissance. Le contrôle des charges de chauffage de l'eau pourra éventuellement s'ajouter. » [nous soulignons]

2.3 Ventilation annuelle du nombre de participants

« Hilo a la responsabilité de mettre en place les moyens nécessaires pour atteindre les cibles convenues avec le Distributeur, en sollicitant le nombre de clients requis et en assurant un effacement par participant suffisant afin d'atteindre les cibles de réduction de puissance pendant les plages horaires spécifiées par le Distributeur.

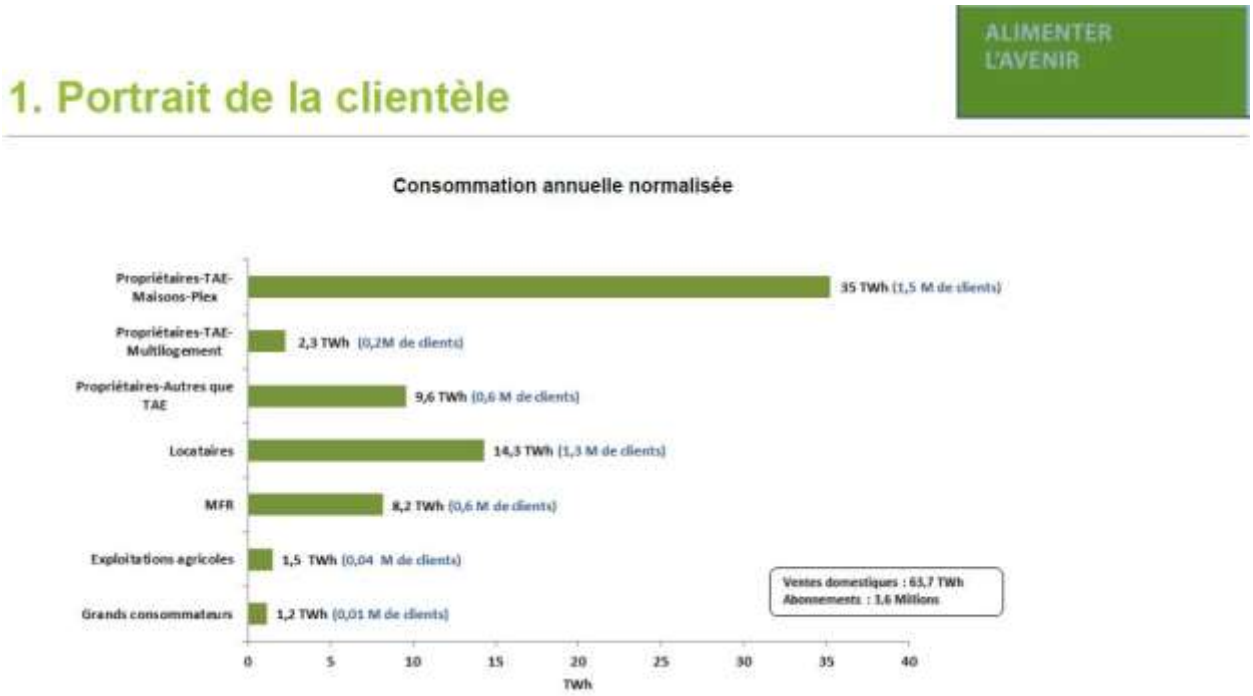
Pour l'hiver 2019-2020, le Distributeur comprend qu'Hilo souhaitait recruter 1 000 clients testeurs, cible atteinte en date d'aujourd'hui. » [nous soulignons]

« 2.4 Hypothèses d'effacement

Hilo estime une réduction moyenne en pointe de 2 kW par client participant, laquelle est validée par les projets pilotes réalisés par le Distributeur, et d'une pénétration à l'horizon du Plan de près de 15 % du marché cible, soit 6 % de l'ensemble de la clientèle résidentielle en 2029. Le Distributeur estime ces hypothèses réalistes et atteignables selon les taux de pénétration observés dans d'autres juridictions pour des offres de maisons intelligentes, incluant le contrôle de la charge de chauffage. » [nous soulignons]

(vii)

LOOSE TRANSLATION



La Régie note par ailleurs, aux pages 5 et 6 - *Portrait de la clientèle,* que la superficie moyenne associée au groupe Propriétaires-All-Electric-Maisons-Plex est de 2 157 pi^2, alors que celle associée au groupe Propriétaires-All-Electric-Multilogements est de 1 198 pi^2.

(viii) Site Web Hilo énergie

« *Combien ça coûte ?*

C'est gratuit pendant toute la durée de la période de prélancement ! On vous prête les produits intelligents et on les installe chez vous gratuitement (l'installation est d'une valeur de 400 $). Une fois la période de prélancement terminée, on vous invite à continuer à utiliser Hilo en profitant d'une offre exclusive : si vous devenez client, vous bénéficierez d'une réduction allant jusqu'à 500 $ sur la valeur des produits intelligents. Et si vous décidez de ne plus utiliser Hilo après la période de prélancement ? On réinstalle gratuitement vos anciens thermostats et on reprend les produits, tout simplement !*

** Pour 12 thermostats installés et à condition de compléter les défis Hilo en mode audacieux et de répondre aux sondages.* » [nous soulignons]

(ix) « *La filiale Hilo d'Hydro-Québec assurera la mise en marché et l'exploitation d'outils technologiques permettant de contrôler la consommation de certaines charges. La livraison des services sera encadrée par un contrat de gré à gré entre la filiale et le Distributeur* ».

(x) « *Le rôle du Distributeur consiste à définir ses besoins en MW effacés pendant les périodes de pointe du matin et du soir et à émettre à Hilo des avis pour des événements de GDP. Il doit également suivre rigoureusement les résultats obtenus*

en termes de réductions de puissance. Pour ce faire, il demande à Hilo de démontrer sa capacité à rencontrer ses exigences par la soumission annuelle de différents documents, notamment:

- *un plan marketing 5 ans et ses mises à jour ;*
- *le suivi des conditions d'admissibilité des participants ;*
- *l'engagement en kW et en nombre de participants pour la prochaine année;*
- *le calcul de la réduction de puissance réalisée*. » [nous soulignons]

(xi) « *Déploiement progressif*

Nous déployons les nouvelles offres de tarification dynamique de façon graduelle afin d'assurer un accompagnement optimal de la clientèle. Des clients sélectionnés au hasard ont reçu un courriel les invitant à participer. Ils étaient libres de s'inscrire à l'une des offres ou de conserver leur tarif actuel.

Pour l'hiver 2019-2020, le nombre maximal de clients pouvant s'inscrire a été atteint. » [nous soulignons]

(xii) « *Un client d'Hilo ne pourra ainsi pas s'abonner à la tarification dynamique et inversement, un client qui souscrit à la tarification dynamique ne pourra pas participer aux offres d'Hilo*. »

(xiii) « *Les défis Hilo, ça vous rapporte ! Pendant la saison froide, on vous propose jusqu'à 30 défis de réduction. En les relevant, vous recevez de l'argent. La formule est simple : acceptez les actions automatiques proposées par Hilo et touchez une récompense pour chaque kilowattheure (kWh) non consommé*. »

LOOSE TRANSLATION

[nous soulignons]

(xiv) « *Dans un premier temps, les mesures visées reposent essentiellement sur le contrôle de charges de chauffage résidentiel. Un avis favorable du Ministère de la Santé et des Services sociaux (MSSS) ayant été émis en mai 2019, les charges de chauffage de l'eau pourront éventuellement s'ajouter, selon la disponibilité d'un produit répondant aux critères anti- légionelle*.

Éventuellement, des offres pour les clients commerciaux, industriels et institutionnels seront également ajoutées »

LOOSE TRANSLATION

(xv)

TABLEAU 2 :
SOMMAIRE DE L'UTILISATION DES OPTIONS D'ÉLECTRICITÉ INTERRUPTIBLE
CLIENTÈLE DE GRANDE PUISSANCE
HIVERS 2017-2018 ET 2018-2019

	Hiver 2017-2018			Hiver 2018-2019		
	Option I	Option II	Option en vertu de l'article 6.39 des Tarifs	Option I	Option II	Option en vertu de l'article 6.39 des Tarifs
Nombre de clients	23	1	1	23	1	1
MW effectifs (moyenne mensuelle)	909,0	17,6	2,2	894,2	16,0	2,1
Nombre d'appels	5	1	2	2	0	2
Nombre d'heures d'interruption / client	0 à 24	5	9	0 ou 10	-	10
Crédits versés (k$)	14 411,1			12 791,1		

Requests :

10.1 Please confirm that, in relation to the 2018 progress report on which the current capacity balance is presented in reference (ii), the two-year postponement of long-term supply requirements, from 2023-2024 to 2025-2026 under this Plan, is mainly due to the demand reduction resulting from the introduction of the Hilo program and the demand reduction resulting from the *additional potential resources.*

Answer :

The Distributor confirms that the addition of new demand management resources, including Hilo and potential additional resources, offsets the increase in power requirements and delays the need for new long-term supplies by two years, compared to 2018.

As a result, the withdrawal of these resources from the capacity balance would result in the need for a new power supply.

10.1.1 Please confirm that in the absence of these two "resources," tendering would have to be launched earlier to meet long-term supply needs as early as 2022-2023, as shown in reference (i).

Answer :

See the answer to question 10.1.

10.1.2 Please elaborate on the critical role of these two initiatives and their success in evaluating the 2020-2029 Supply Plan.

Answer :

The new DM resources integrated into the capacity balance indeed play an important role in achieving the supply-demand balance for power.

The Distributor prioritizes reducing requirements before acquiring potentially expensive new supplies that require long-term commitments. To do this, the Distributor relies on Hilo's offer, with the deployment of technology offerings tailored to meet peak needs, as well as changes to interruptible electricity options and the DM Business program in order to increase customer participation in these various measures.

10.2 Considering that in the pilot project for interruptible baseboard heating loads, the analysis of the results shows an average reduction of 1 kW when 4 thermostats are controlled (reference (iii)), please specify the average number of thermostats controlled in the portion of the sample that produced an average reduction of 2 kW "when all thermostats were controlled."

Answer :

The average amount of thermostats installed was 10 in the portion of the sample that produced an average reduction of 2 kW.

10.2.1 Please specify the sample size and distribution of the type of residence between Owners-All-Electric-Homes-Plex, Owners-All-Electric- Multi-Housing and Tenants.

Answer :

The sample included 30 All-Electric single-family homes occupied by homeowners.

.

10.3 Please specify the number of communicating thermostats per residence and the type of residence for the 75 clients of the Technology Tool Deployment project, tested in the winter of 2018-2019 (reference (iii)).

Answer :

There were, on average, 7.3 thermostats per residence, mostly detached single-family All-Electric residences.

10.4 Please update the Breakdown of Customers Charged Domestic Rates presented in reference (vii).

Answer :

From the outset, the Distributor wishes to clarify that the Breakdown of Customers Charged Domestic Rates presented in reference (vii) was produced as part of the revision of domestic pricing in 2015 and that it has not been updated since.

The Distributor is, however, able to present in Table R-10.4 the distribution of the number of residential customers for the customer segments requested in question 10.4.1 based on the results of the survey *Use of Electricity in the Residential Market - Edition 2018*. The Distributor points out that, given the relatively short time span between the two fiscal years, the distribution of the number of residential customers has changed little.

TABLEAU R-10.4 :
RÉPARTITION DU NOMBRE DE CLIENTS RÉSIDENTIELS PAR SEGMENTS

	Répartition (%)
Propriétaires-All-Electric-Maisons-Plex	42%
Propriétaires-All-Electric-Multilogements	6%
Propriétaires autres que All-Electric	17%
Locataires	35%

10.4.1 Veuillez présenter la répartition des clients résidentiels entre Propriétaires-All-Electric-Maisons-Plex,Propriétaires-All-Electric-Multilogements, Propriétaires autres que All-Electric, et Locataires.

Réponse :

10 **Voir la réponse à la question 10.4.**

10.5 Veuillez concilier l'effacement moyen annuel de 1,5 kW par résidence de la référence (iv), basé sur les résultats obtenus à la suite du projet de démonstration Charges de chauffage à plinthes interruptibles qui a pris fin en 2018, et la réduction moyenne en pointe de 2 kW par client participant, présentée en référence (vi), laquelle serait validée par les projets pilotes réalisés par le Distributeur.

Réponse :

11 **Voir la réponse à la question 10.2.**

10.6 Please specify whether Hilo's target market is essentially composed of the 1.5 million Owner-All-Electric-Plex Homes-Plex customers at rate D heating average areas of

2 157 sq. feet, according to the Breakdown of Customer Charged Domestic Rates of reference (vii).

Answer :

Hilo will deliver the annual power reduction targets agreed upon with the Distributor. To do this, Hilo will determine the contribution of different types of housing, customer segments or uses.

Considering the results of the pilot projects, the Distributor finds that the target power reduction of 2 kW per participating customer is consistent with a priority placed on larger homes. However, Hilo is in the best position to select the target segments or measures. The Distributor did not conduct an analysis of the appeal and penetration rate of the Hilo program specifically with owners-All-Electric-Plex Homes at rate D, tenants, condo owners or any other category. Similarly, the Distributor did not make any assumptions as to the contributions of space or water heating.

Finally, the Distributor stresses that it is confident that Hilo will achieve the annual targets, which are conservative for the early years of the Plan. The Distributor also notes the customer enthusiasm shown at the launch of Hilo and a significantly higher number of responses to the call for test customers for its offer in the winter of 2019-2020 than the one originally targeted.

10.7 Considérant les investissements requis par les abonnés pour le remplacement des thermostats, puisque la subvention d'Hilo ne couvre qu'une portion des coûts tel que l'indique la référence (viii), veuillez élaborer sur le potentiel d'attrait et le taux de pénétration attendu du programme Hilo auprès des 1,3 million de locataires (référence (vii)).

Réponse :

19 **Voir la réponse à la question 10.6.**

10.8 Considérant que les économies potentielles d'un client dépendent de ses charges de chauffage à la pointe et considérant que les propriétaires de condos chauffent une superficie moyenne de 1 198 pi^2, selon le *Portrait de la clientèle aux tarifs domestiques* de la référence (vii), soit une superficie inférieure à celle des Propriétaires-All-Electric-Maisons-Plex, veuillez élaborer sur le potentiel d'attrait et le taux de pénétration attendu du programme Hilo auprès des propriétaires de condos.

Réponse :

Voir la réponse à la question 10.6.

10.9 Please specify the jurisdictions to which the Distributor refers when it states that the assumptions put forward, such as that of a penetration rate of 15% of the target market, are *"realistic and attainable according to penetration rates observed in other jurisdictions for smart home offerings, including heating load control"* (reference (vi)). Veuillez fournir les références appropriées et commenter.

Answer :

From the outset, the Distributor reiterates that a 15% penetration of the target market represents only 6% of all Quebec households.

Hilo's penetration rate is based on data from more mature markets, such as the European and US markets. Adjustments to observed penetration rates have been made to take into account the particularities of the Quebec market, such as low prices, renewable energy or mainly electric heating.

10.10 Considering that the Hilo subsidiary will target, in a first phase, the same residential clientele as the dynamic pricing options, please specify the expected pace of the gradual deployment, mentioned in reference (xi) and controlled by the Distributor, of the dynamic pricing offer over the years, as presented in the benchmark's capacity balance (i). Please specify when these options should be available to all, without limitation from the Distributor.

Answer :

Table R-10.10 shows the anticipated number of participants in dynamic pricing options at the time of the 2020-2029 Supply Plan.

TABLEAU R-10.10
NOMBRE ANTICIPÉ DE PARTICIPANTS AUX OPTIONS DE TARIFICATION DYNAMIQUE

Hiver (1er déc embre au 3 1 mars)	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029
Tarif Flex D	9 000	18 000	27 000	36 000	45 000	54 000	63 000	72 000	81 000	90 000
Tarif Flex G	1 000	2 000	3 000	4 00	5 000	6 000	7 000	8 000	9 000	10 000
Option de crédit hivernal D*	9 000	18 000	27 000	36 000	45 000	54 000	63 000	72 000	81 000	90 000

Option de crédit hivernal G*	1 000	2 000	3 000	4 000	5 000	6 000	7 000	8 000	9 000	10 000

* Aucune contribution au bilan de puissance n'a été considérée pour les options de crédit hivernal.

As noted in Table 3.3 of Exhibit HQD-2, Document 3 (B-0009), only the expected contribution of Flex D and Flex G rates was considered in the Plan's capacity balance.

At the end of the first winter of application of these options, the Distributor will be able to analyze the results obtained and revise, if necessary, the deployment of these offers, as well as their contribution to the power balance.

For example, the observed results of demand reduction of the winter credit option are likely to allow the contribution of this option to be taken into account in the capacity balance. Thus, while the winter credit option has attracted more customers than the Flex rate, for the winter of 2019-2020, the possible contribution of the winter credit option to the capacity balance may compensate for a potential reduction in the Flex rate contribution, if applicable. Thus, on the basis of the above, the expected overall contribution of the various dynamic pricing options to the capacity balance remains prudent and likely.

10.11 Please specify the number of invitation emails sent inciting participation in the Distributor's dynamic pricing options for the winter of 2019-2020, the number of positive responses received, and the number of customers registered for the winter credit option and the Flex D Rate option. Please submit a copy of the invitation email..

Answer :

Approximately 430,000 invitation emails were sent to clients for the winter of 2019-2020. As of December 1, 2019, 20,357 customers have signed up to any of the dynamic pricing options. Table R-10.11 shows the distribution of customers registered in the various dynamic pricing options and Figure R-10.11 presents a copy of the invitation email.

TABLEAU R-10.11 :
RÉPARTITION DE LA CLIENTÈLE INSCRITE AUX OPTIONS DE TARIFICATION DYNAMIQUE AU 1ER DÉCEMBRE 2019

	Clients résidentiels		Clients Affaires			Total
	Crédit hivernal	Flex D	Crédit hivernal	Flex G	Flex M	
Nombre de clients inscrits au 1er décembre 2019	17 575	2 437	316	27	2	20 357

Because customers could register through their Customer Area, the Distributor points out that the responses received is the number of registered customers. It should be noted that these results are influenced by the fact that the recruitment period and

the number of participants in the winter of 2019-2020 were limited.

The Distributor has also proposed to file, administratively in 2020, a follow-up of the results from the first winter of dynamic pricing deployment[9].

FIGURE R-10.11 :
COURRIEL D'INVITATION À LA TARIFICATION DYNAMIQUE

[9] **R-4100-2019, HQD-1, document 1 révisé [C-HQD-0044].**

10.12 Please confirm or correct the Régie's understanding, sourced from Hilo's website and from which some excerpts are presented in reference (xiii), to the effect that the program provides for the possibility of 120 hours of demand reduction per winter (30 4-hour events) and a compensation of $0.55 per kWh reduced, compared to a maximum of 100 hours of demand reduction per winter and a reward of $0.50 per kWh reduced for the winter credit option at rate D.

Answer :

The Distributor shares the Régie's understanding that the customer participating in Hilo's offer will receive the equivalent of a compensation of $0.55/kWh reduced, but specifies, as Hilo mentions on its website, that the customer must accept the automatic actions proposed by Hilo during a demand management event.

10.13 Considering that, according to the Distributor's projections, the demand reduction from dynamic pricing will increase from 4 times that of Hilo's in 2019-2020 to 10 times less than Hilo's in 2023-2024 (reference (i)), please elaborate on the reasons for the pace of program deployment and dynamic pricing options, customer adoption and growth of demand reduction, which differs for these two advanced management (DM) methods, which are nevertheless aimed at the same residential clientele.

Answer :

As mentioned in its Evidence Supplement on Hilo in Exhibit HQD-4, Document 1 (B-0017), dynamic pricing focuses on changes in customer behaviour as Hilo develops and deploys home automation products and services to the Distributor's customer base. Thanks to these new technologies and the load control they allow, the Distributor believes that Hilo will be able to deliver an average demand reduction that exceeds that of dynamic pricing.

See also the answers to questions 10.6 and 10.10.

10.14 Please confirm whether the Distributor intends to use the Hilo subsidiary to generate the demand reduction of residential customers, rather than dynamic pricing.

Answer :

Hilo's services and dynamic pricing are part of the portfolio of management methods available to meet demand. Thus, depending on the load to be supplied for, the constraints on the Carrier's network, the intrinsic characteristics of the different methods (range of use, time before call, average price) and, all this, in order to optimize the use of heritage electricity, the Distributor uses the methods that permit the guarantee of network reliability and supply-demand balance at a lower cost. With this in mind, none of these methods is preferred over another, as they are part of a comprehensive strategy.

10.15 Please present the pros and cons for the Distributor of each of these two management methods for the same clientele..

Answer :

For the Distributor, both methods result in customer demand reduction during targeted hours. Since the terms of interruptions are similar both methods, they offer the same benefits for the supply-demand balance.

However, customers involved in dynamic pricing must determine for themselves what measures to put in place to reduce their consumption and benefit from savings on their bill, while Hilo customers will be able to benefit from an energy "coach" and equipment that facilitates the automated management of their load.

10.16 Considering that a customer participating in dynamic pricing options has the expectation that their electricity bill will be reduced from $70 to $100 (reference (xi)), and that a Hilo participant will have to invest several hundred dollars in equipment, even after grant, for a similar expectation of saving "up to $90 per year" (reference (xiii)), please explain the differential in the Distributor's expected penetration rate between the Hilo program and that of dynamic pricing options.
.

Answer:

First, the Distributor states that Hilo's expected residential market penetration rate is of the same scale as expected for dynamic pricing. Rather, the difference between the power contribution of these two methods is due to different average unit demand reduction, which is about 2 kW for Hilo and 0.8 kW for dynamic pricing.

In addition, the Distributor understands that several elements, in addition to financial compensation, are likely to encourage a portion of the residential clientele to join Hilo's offers. On the one hand, participants in these offers will benefit from the services rendered by connected products, which are not only monetary but also likely to improve their quality of life thanks, in particular, to home automation. On the other hand, participating clients will receive personalized advice and should also save energy, which will allow them to reduce

their electricity bills. These potential savings will be in addition to the compensation that Will be paid by Hilo. Finally, automation can make Hilo's offerings more attractive to a number of customers as it reduces the effort associated with load management.

Thus, as stated in the Evidence Supplement (Exhibit B-0017), although Hilo and dynamic pricing are both aimed at the residential market, they are nevertheless aimed at customers with different profiles. In this way, even if the compensation terms are different, the Distributor considers that each of the two offers is likely to be of interest to its share of residential customers.

In addition, the Distributor wishes to correct the assertion in the question that the customer participating in dynamic pricing options had the expectation that their electricity bill would be reduced from $70 to $100. This is not an expectation of savings, but rather an illustration of the tool offered to compare offers. Customers were asked to compare pricing options in their Customer Area to estimate the savings they could make based on their historical consumption profile.

FIGURE R-10.16 :
EXTRAIT DU SITE WEB D'HYDRO-QUÉBEC - TARIFICATION DYNAMIQUE

10.17 Please indicate whether the Distributor will be required to reimburse or compensate, in whole or in part, directly or indirectly, the cost of the products offered to customers and their installation and uninstallation by the Hilo subsidiary, as outlined in reference (viii).

10.17.1 If so, please describe the repayment or compensation terms foreseen.

Answer :

No mechanism for reimbursement or compensation by the Distributor of the cost of the products offered to Hilo's customers, their installation or their uninstall by Hilo, is foreseen, in whole or in part, directly or indirectly.

10.18 Please specify the period that will be covered by the reference contract (ix), between Hilo and the Distributor, specifying the number of years for which Hilo will be required to meet specific power reduction targets.

Answer :

The contract between Hilo and the Distributor covers a period of 10 years. The power reductions presented in the Plan are targets that will be confirmed annually by a firm commitment. For the reasons mentioned in response to question 10.6, in the Distributor's view, they are realistic and achievable.

The Distributor will also file an update of these targets as part of the future progress of the Plan.

10.18.1 Please specify the number of years for which the form and overall compensation amounts per reduced kW offered by the Distributor to Hilo will be determined by contract. Please elaborate.

Answer :

The amount and terms of remuneration are provided for the 10-year contract period.

.

10.19 Please provide the expected overall cost to the Distributor, for the first 3 years of the Hilo program, per kW reduced.

Answer :

The deployment of a range of smart home-focused services is one of Hydro-Québec's priorities in its 2020-2024 Strategic Plan[10] to increase its customer offering

and satisfaction. Hydro-Québec considers Hilo's service to be a structuring activity in its service offering by enabling participating customers to make a concrete contribution to the energy transition by having access to various home automation services enabling them to participate in the collective effort to reduce energy consumption. This service also contributes to meeting the demand of customers who want Hydro-Québec to go further in its offer and accompany them in the introduction of new technologies and in the management of their energy consumption, and this, while maintaining high standards in the confidentiality of personal data.

For the Distributor, whose power needs are growing, Hilo provides access to a new flexible, safe and perfectly tailored means of supply to a pool of customers not yet exploited by the means currently available.

Aware of the significant costs associated with the development of such a service, the Distributor points out that its launch coincides with the beginning of a rate cap cycle for the next four years, implying that customers will not be affected by service costs during this period. In fact, these costs will not be included in the Distributor's required revenue until 2025, when Hilo's service has reached a certain maturity and the Distributor can make the most of it.

In the meantime, the Distributor has strived to obtain a price representative of long-term avoided costs and is working to estimate the benefits for the network and environmental benefits more difficult to quantify at this stage, but made possible by the technologies put in place by Hilo. Hilo's deployment of this sustainable technology infrastructure downstream of the meter will allow the range of services to be gradually expanded according to the needs of Hydro-Québec's network. This infrastructure will also allow to accommodate more energy resources distributed to its customers without putting at risk the network and reliability of Hydro-Québec's service, all in compliance with high safety standards.

[10] **Plan stratégique 2020-2024 d'Hydro-Québec, Voir grand avec notre énergie, p. 36.**

The Distributor believes that the price paid for such a service must remain confidential, as it is commercially sensitive, particularly in the context of how few players exist in this emerging market.

[redacted]

10.20 Given that Hilo "*has a responsibility to put in place the necessary means to achieve the targets agreed upon with the Distributor, by soliciting the required number of customers and ensuring sufficient clearance per participant to meet the power reduction targets during the time slots specified by the Distributor*" (reference (vi)), please elaborate on the form and nature of Hilo's commitments and guarantees for meeting the multi-year targets set by the Distributor and included in the Plan's capacity balance.

Answer :

As mentioned in response to question 10.18, Hilo's power reduction (MW) commitments to the Distributor on an annual basis are confirmed before each winter period. A penalty will be provided in the contract if the power reduction to which Hilo is committed is not achieved.

10.21 Considering that a favourable opinion from the Ministry of Health and Social Services (MSSS) was issued in May 2019, please specify the approximate timetable of the commercial availability of a water heater meeting the anti-legionella criteria and the addition of water heating loads to Hilo's offer. Please elaborate.

Answer :

As mentioned in the Evidence Supplement in Exhibit HQD-4, Document 1 (B-0017), Hilo must make its own technological choices and determine the pace of deployment of measures. The Distributor did not make any predictions about the timetable for adding specific measures.

However, the Distributor believes that water heaters meeting the anti-legionella criteria should be commercially available by 2021.

10.22 The Distributor presents in Table 3.2 (reference (i)), a projection of Hilo's contribution for the next 10 years. The Régie understands, upon reading reference (xiv), that a portion of this contribution would come from residential space heating, residential water heating and another portion would come from the commercial, industrial and institutional sectors. Please confirm the Régie's understanding, otherwise please explain.

Answer :

The projections presented in Table 3.2 include only uses for residential clients. The Distributor made no projection of Hilo's contribution from the commercial, institutional and industrial markets during the period covered by the Plan.

10.23 The Régie understands that the choice of means, technologies and implementation strategy would be Hilo's responsibility, as it appears in reference (vi). It also understands that in order to produce the multi-year projection of Hilo's contribution from Table 3.2 of the reference (i), the Distributor had to make a number of assumptions about the contribution of an offer for residential heating of spaces, residential water heating and the contribution of the commercial, institutional and industrial sectors. Please confirm the Régie's understanding, otherwise please explain.

Answer :

See the answers to questions 10.6 et 10.22.

10.24 As ordered by its decision D-2019-157, the Régie asks the Distributor to present, according to the assumptions it used to produce its multi-year projection of Table 3.2 of the Plan, the respective contribution of residential heating of spaces, residential heating of water and the contribution of commercial, institutional and industrial customers, providing the number of participants by type of clientele and by type of load , as highlighted in the reference (v), as well as the assumptions of demand reduction by participant and by type of load.

Answer :

See the answer to question 10.6.

10.25 According to data from the Distributor's last three annual reports, the effective demand reduction from high-power customers in respect to the interruptible electricity option decreased during the winters of 2016-2017, 2017-18 and 2018-2019, from 965 MW to 929 MW and 912 MW (reference xv). Please validate and explain the use of the 1,000 MW per year demand reduction hypothesis for interruptible electricity in the Distributor's capacity balance (i)), considering the lesser effective demand reduction over the last 3 years.

Answer :

The contribution from interruptible electricity options varies by ten MW from year to year depending on the membership of industrial customers, but the order of magnitude of 1,000 MW still seems adequate in planning. The Distributor also states that the contribution from

this means to the capacity balance for the winter of 2019-2020 is 954 MW, which does not support a downward trend in the contribution of this means.

In addition, the Distributor recalls that each autumn, it must demonstrate compliance with the power reliability criterion for the following winter and file an capacity balance to this effect in following with the supply plan (Annex D). This report incorporates the most up-to-date data, including actual memberships to the various means of managing power demand. Power purchases in short-term markets make it possible to fine-tune the capacity balance.

PROGRAMME « *CHARGES INTERRUPTIBLES RÉSIDENTIELLES* »

12. Références : (i) Pièce B-0017, p. 9;
(ii) Pièce B-0017, p. 8;
(iii) Décision D-2019-027 p. 130 à 132.

LOOSE TRANSLATION

Préambule :

(i) « *Un client d'Hilo ne pourra ainsi pas s'abonner à la tarification dynamique et inversement, un client qui souscrit à la tarification dynamique ne pourra pas participer aux offres d'Hilo.*

Même si les deux mesures visent le marché résidentiel, le Distributeur est d'avis qu'elles s'adressent néanmoins à des clients de profils différents. En effet, d'un côté, l'offre de l'agrégateur Hilo vise le contrôle de charges et comprend la fourniture de produits et services ayant notamment pour objectif la réduction de la consommation d'énergie. De l'autre, les options de tarification dynamique visent davantage les changements de comportements des clients qui y adhèrent en contrepartie d'une réduction de leur facture, lesquels maintiennent le contrôle de leurs charges.

Pour l'ensemble de ces raisons, le Distributeur considère que ces deux moyens de gestion de la puissance sont suffisamment distincts pour que le risque de chevauchement, en ce qui concerne leur impact en puissance, soit considéré minime. Il n'y a par conséquent aucun besoin de développer une méthodologie visant à distinguer les impacts de ces deux moyens de gestion de la puissance offerts à la clientèle résidentielle. » [nous soulignons]

(ii) « *Hilo est responsable de mettre en oeuvre les moyens administratifs, financiers, commerciaux et techniques de son choix pour répondre aux exigences du Distributeur, incluant une rétribution aux clients participants selon la forme et la valeur qu'il juge nécessaire pour l'atteinte des cibles de réduction de puissance convenues avec le Distributeur. Le Distributeur n'est pas impliqué dans la détermination de la compensation aux clients participants*. » [nous soulignons]

(iii) Dans sa décision D-2019-027, la Régie notait que, selon le Distributeur, le programme *Charges interruptibles résidentielles* devait s'étendre sur une période de sept ans pour être rentable, qu'il consistait en l'installation gratuite d'équipements domotiques et que les clients n'auraient pas accès aux avantages de la tarification dynamique pour éviter une double rémunération des kW effacés. La Régie notait que le Distributeur soulignait aussi que l'intérêt de mesures comme la domotique était justement de pouvoir profiter de la tarification dynamique. Elle concluait :

« *[564] Même si les participants n'ont pas à modifier leur comportement pendant les périodes de pointe, puisque leurs équipements seront télécommandés par le Distributeur, ces interventions auront nécessairement un impact sur leur consommation. De ce fait, il y a lieu de clarifier comment ces participants seront convaincus, à partir du deuxième hiver, d'accepter que leurs équipements continuent d'être contrôlés par le Distributeur, sans aucun bénéfice en retour, la perception de la nouveauté et de l'intérêt des équipements domotiques pouvant s'effriter rapidement avec le temps*. »

Elle faisait alors la demande suivante :

« *[566]* ***La Régie demande toutefois au Distributeur de clarifier comment il entend intéresser les participants à accepter d'être interrompus en période de***

***pointe, sans aucune rémunération.* »**

Requests :

12.1 Please indicate whether the compensation to participating customers mentioned in reference (ii) is the Distributor's response to the Régie's request in paragraph 566 of its D-2019-027 decision and how this compensation is different from the pricing options for the critical peak.

Answer :

A compensation to participating clients could indeed make it possible to interest them in agreeing to interruptions during peak periods, as suggested by the Régie in this decision. The Distributor reiterates, however, that decisions concerning the remuneration of participants, as well as the form or value of this remuneration, are Hilo's responsibility and not its own.

As for the remuneration of customers who subscribe to the winter credit option or Flex rate D, it has the same objective, which is to encourage customer participation. In this case, and unlike Hilo, the compensation is fixed and paid by the Distributor. The amount of this compensation is also approved by the Régie.

12.2 Please confirm that the operating principle of dynamic pricing is to pay a customer each winter, provided that that customer lowers their loads during peak periods..

Answer :

The Distributor confirms this.

12.3 Please confirm that the first objective of the Hilo offer is peak period power reduction.

Answer :

The Distributor confirms this.

12.4 Please confirm that the only difference between the two interventions described above is the control of loads during peak periods: assumed by a person mandated by the Distributor (an aggregator), in the case of the Hilo offer, or by the consumer, for dynamic pricing, which is also available through the market for options to respond in an automated manner to the Distributor's advanced price signal.

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N° 1 DE L'AQCIE-CIFQ (including confidential response)

duquel un moyen de GDP sera sollicité), l'appel de ce moyen de GDP aura peu ou pas d'impact sur les besoins de ce poste.

Le Distributeur et le Transporteur ont amorcé des travaux afin d'analyser de façon plus poussée l'impact de différents moyens de GDP sur les besoins du réseau. Ces travaux contribueront notamment à l'élaboration d'une stratégie permettant de mieux tenir compte de l'apport des moyens de GDP dans la projection des besoins des réseaux de transport et de distribution et dans la planification des investissements de ces réseaux.

1.2 Si vous ne la confirmez pas veuillez quantifier et expliquer l'impact, sur la sollicitation du réseau de transport, de la réduction des besoins résultant de l'application des mesures d'intervention en gestion de la puissance.

Réponse :

Voir la réponse à la question 1.1.

Hilo

2. Références : (i) B-0017, page 6
(ii) http://nouvelles.hydroquebec.com/fr/communiques-de-presse/1552/lenergie-devient-intelligente-avec-hilo-nouvelle-marque-dhydro-quebec/?fromSearch=1

Préambule :

La référence (i) mentionne :

> *« Pour atteindre cet objectif, le Distributeur a réalisé plusieurs projets pilotes et projets de démonstration dans le passé qui ont confirmé le potentiel de la GDP pour le marché résidentiel et les efforts importants de commercialisation requis pour l'exploiter. En prenant en considération les limites de son périmètre d'activités réglementées et l'effort requis pour un déploiement de masse, il a choisi de mandater l'agrégateur Hilo, une filiale non réglementée en propriété exclusive d'Hydro-Québec, active dans le marché de la Maison intelligente pour développer le marché de la GDP résidentielle au Québec et contribuer à l'équilibre de son bilan de puissance.*
>
> *Constitué de spécialistes d'expérience en développement de nouveaux produits et d'entreprises technologiques, Hilo détient l'expertise commerciale et technologique pour déployer à grande échelle un service d'installation et de programmation de produits de domotique à la clientèle. La filiale a, de plus, pu bénéficier d'un transfert des connaissances acquises par le Distributeur, par le biais notamment des projets pilotes et des travaux réalisés pour le*

compte de ce dernier par les chercheurs de l'Institut de recherche d'Hydro-Québec (IREQ). » (Nos soulignements)

À la référence (ii) le communiqué de presse du 16 octobre 2019 mentionne :

« Hydro-Québec lance la marque Hilo, qui offrira des produits et des services personnalisés à ses clients pour gérer leur consommation d'électricité plus intelligemment et plus efficacement, en toute simplicité. »

Request :

2.1 Please specify the date on which the Distributor *"chose to mandate the aggregator Hilo, (...) to develop the residential PDM market in Quebec and contribute to the balance of its power aggregate".*

Answer :

The contract between the Distributor and Hilo was signed on October 21, 2019.

2.2 Please indicate if people working for the Distributor have changed jobs and are now working for Hilo.

Answer :

Six distributor resources were transferred to the subsidiary when it was created. Since then, the subsidiary has paid all of these resources.

2.3 Please indicate whether there is a code of conduct or code of ethics governing the relationship between the Distributor and Hilo.

Answer :

As part of the contract, Hilo is subject to the same rules of conduct regarding customer service, confidentiality and privacy as those that the Distributor must follow. The application of these rules is followed within the framework of contract management by the Distributor.

2.4 Please indicate whether the Distributor has signed one or more agreements with Hilo for the purposes of the referred mandate. If necessary, please file this or these agreements.

Réponse :

See Appendix A of this exhibit.

2.5 Veuillez indiquer si le Distributeur a contacté d'autres agrégateurs aux fins d'un tel mandat.

- If not, please justify retaining Hilo without knowing the other possibilities.

Answer :

The Distributor has not contacted any other aggregators at this time. As mentioned in response to question 10.19 of the Régie's Enquiry No. 1 in HQD-5, Document 1 (B-0024), Hydro-Québec is banking, in its Strategic Plan 2020-2024, on this activity to increase its offer to its customers, to support them in their choice of new technologies and in the management of their consumption, with the aim of increasing their satisfaction. The development of smart home-based services is a structuring activity for the company and as a result, the company has chosen to develop it through a subsidiary. By using the Hilo subsidiary, the Distributor benefits from a new, flexible, safe resource which is perfectly adapted to its needs. It can also more easily experiment with this innovative power management solution. Indeed, the agreement with Hilo provides a break-in period to experiment, refine and adjust all parameters to deliver a service that perfectly meets the Distributor's needs. It enables efficient and coordinated co-development of energy services without putting Hydro-Québec's network and reliability at risk, all in compliance with data security and privacy criteria.

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2.6 Please indicate the terms of the "transfer of knowledge acquired by the Distributor".

Answer :

As noted in HQD-4, Document 1 (B-0017), the Distributor has carried out several demand management projects in the residential market. These projects were carried out to meet its own needs, including confirming the potential to exploit DM all across its customer base and to develop and implement dynamic pricing. The sums incurred by the Distributor for this type of activity are part of the results presented annually in the Energy Efficiency Intervention Data included in its annual reports filed with the Régie under the headings:

- **Technological and commercial innovations, for the research and development costs of LTÉ and demonstration projects;**

- **demand management for expenses related to various pilot projects.**

After the decision was made to outsource the development of the residential DM market to Hilo, the Distributor shared with it the lessons it had learned. However, the Distributor states that all of the research and pilot projects costs carried out specifically for Hilo's needs have been charged to Hilo, at full costs, including the costs of the Technology Tool Deployment project, as well as all costs incurred for activities related to the development of a large-scale offering of a home automation installation and programming service for residential customers carried out in advance of the launch of the subsidiary.

2.7 Please indicate whether Hilo paid an amount of money for this knowledge transfer. If so, please specify this amount and the basis on which this amount was established.

Answer :

See the answer to question 2.6.

2.8 Please indicate whether "*knowledge acquired by the Distributor*" is also available to other aggregators.

Answer :

Much data about the Distributor's pilot projects has already been shared with the Régie over the years, including Section 4 of HQD-4, Document 1 (B-0017). That said, in the event of the need for other aggregators to acquire residential customer demand management assets, the Distributor will ensure that all bidders in a potential tender are provided with the information required to participate.

2.9 Please indicate the costs incurred by the Distributor for «*pilot projects and work carried out on behalf of the latter by researchers at the Hydro-Québec Research Institute"*. Please indicate if any other costs have been incurred by the Distributor for the acquisition of the knowledge mentioned in reference (i). If so, please identify and quantify them.

Answer :

See the answer to question 2.6.

3. Références : (i) B-0009, page 18
(ii) B-0024, page 47
(iii) B-0024, page 49
(iv) B-0024, page 40

Préambule :

La référence (i) présente le Bilan en puissance sur la période du Plan. On y retrouve notamment à la ligne « Hilo » une valeur de la réduction en puissance pour chacune des années du Plan.

La référence (ii) mentionne :

> *« Le contrat entre Hilo et le Distributeur couvre une période de 10 ans. Les réductions de puissance présentées au Plan sont des cibles qui seront confirmées annuellement, par un engagement ferme. Pour les raisons mentionnées en réponse à la question 10.6, de l'avis du Distributeur, elles sont réalistes et atteignables. »*

La référence (iii) mentionne :

> *« Comme mentionné en réponse à la question 10.18, les engagements de réduction de puissance (MW) que prend Hilo au bénéfice du Distributeur sur une base annuelle sont confirmés avant chaque période d'hiver. Une pénalité sera prévue au contrat si la réduction de puissance pour laquelle Hilo s'est engagée n'est pas atteinte. »*

La référence (iv) mentionne :

> *« Enfin, le Distributeur souligne qu'il est confiant de l'atteinte par Hilo des cibles annuelles, lesquelles sont conservatrices pour les premières années du Plan. »*

Demandes :

3.1 Étant donné que les puissances présentées à la référence (i) sont des cibles et que les engagements seront confirmés annuellement, veuillez expliquer quelles seraient les conséquences d'un engagement différent de la valeur cible pour une année donnée.

Réponse :

Voir la réponse à la question 39.9 du RNCREQ à la pièce HQD-5, document 7.

3.2 Please indicate how the Distributor will be able to measure the amount of power that has been erased by Hilo for a given year.

Answer :

The method of calculating erased power is currently in development as part of Hilo's break-in period. In short, this method will consist of measuring the difference between a reference power and the power calculated from the meter data during a DM event.

See Appendix 3 of the contract filed in confidential form in Appendix A of this exhibit.

3.3 Please specify the penalty under the contract if the power reduction for which Hilo has committed is not achieved.

Answer :

The value of this penalty must be specified by the Distributor as part of Hilo's break-in period.

3.4 Regarding the information in reference (iii), please specify what the Distributor means by "*the first years of the Plan*."

Answer :

They correspond to the break-in period of Hilo's activities, i.e. the first two contractual years as defined in section 1 of the contract.

4. References : **B**-0024, pages 47 and 48

Préambule :

À la page 47 de la référence, il est mentionné que le « *montant et les modalités de rémunération sont prévus pour la période contractuelle de 10 ans* »**.**

À la page 48, à la demande de la Régie de « *fournir le coût global prévu pour le Distributeur, pour les 3 premières années du programme Hilo, par kW effacé* », le Distributeur répond notamment que le « *prix est représentatif des coûts évités de long terme* ».

Requests :

4.1 Please provide the avoided long-term costs that were used to establish Hilo's compensation.

Réponse :

[redacted]

The Distributor believes it is important to stress that Hilo's remuneration is not derived from the avoided cost. Avoided cost is one of the factors in judging the reasonableness of the cost of the measure in relation to the benefits to the Distributor. It has concluded that the benefits, both monetary and non-monetary, compare favourably with the cost.

The Distributor stresses the importance it attaches to the deployment of a structuring activity that allows its customers to contribute to the energy transition, as it pointed out in response to question 10.19 of the Régie's IR No. 1 in HQD-5, Document 1 (B-0024).

See also the answer to question 4.1 of the **ROEÉ** in HQD-5, **document 8.**

4.2 Please specify if the avoided costs include transportation and distribution costs. Please explain your response.

Answer :

See the answer to question 4.1.

4.3 Since the measures relate to power demand management, please indicate whether the implementation of Hilo's planned measures will have an impact on the Distributor's revenues. If so, please indicate how this impact is taken into account in Hilo's remuneration.

Answer :

From the outset, the Distributor points out that, as indicated in the answer to question 4.1, the extent of Hilo's remuneration does not come directly from avoided costs or a possible opportunity cost (revenue reduction).

However, the Distributor recalls that Hilo initially targets residential customers. That said, tariff D, which applies to most of the latter, does not have any price for power. As a result, reducing customers' power demand will not impact their bill. In addition, with the service aimed at maximization of customer comfort, demand reduction events will include warm-up periods. As a result, these events are expected to have little or no impact on the total consumption of the target clientele.

5. Références : (i) B-0024, page 29
(ii) B-0024, page 48

Préambule :

En réponse à une demande de la Régie, le Distributeur mentionne :

> *« Le Distributeur rappelle que l'obligation de procéder à un appel d'offres conformément à la procédure prévue à l'article 74.1 de la LRÉ s'applique pour les contrats d'approvisionnement en électricité requis afin de satisfaire les besoins des marchés québécois qui excèdent l'électricité patrimoniale. Or, tel n'est pas le cas avec Hilo. Le service offert par cette dernière vise au contraire une économie dans l'utilisation des ressources énergétiques présentement disponibles chez les clients du Distributeur, permettant ainsi de repousser un appel d'offres pour l'acquisition d'approvisionnements de long terme. Il ne peut donc s'agir d'un « contrat d'approvisionnement en électricité » au sens de la LRÉ. »* (Notre soulignement)

Cependant à la référence (ii), le Distributeur mentionne notamment :

> *« Pour le Distributeur, dont les besoins en puissance à approvisionner sont en croissance, Hilo donne accès à un nouveau moyen d'approvisionnement flexible, sûr et parfaitement adapté à ses besoins, auprès d'un bassin de clients non encore exploité par les moyens actuellement disponibles. »* (Notre soulignement)

Requests :

5.1 Please indicate what, according to the Distributor, is the legal nature of the OTC contract with the Hilo aggregator, as well as the nature of the authorization required by law.

Answer :

The Distributor has entered into an non-tendered contract with the Hilo subsidiary. This contract is not subject to obtaining any authorization under the Régie Act, as it is not an electricity supply contract within the meaning of this Act.

5.2 Please reconcile the underlined statement of reference(i) with the underlined statement of reference (ii).

Answer :

The Distributor does not perceive any inconsistency in the statements highlighted. In reference (i), the Distributor intentionally quoted the term "electricity supply contract" as it refers to the concept as defined in Article 2 of the Act. In reference (ii), this is a more generic use of the term.

Électricité interruptible

6. Référence : R-4057-2018, B-0189, pages 118 et 119

Préambule :

La section 2 de la référence traite des options d'électricité interruptible pour la clientèle au tarif L, et aux pages 118 et 119 de la référence on retrouve les modalités applicables aux interruptions.

Ces modalités sont présentées au tableau ci-dessous.

17. Références : (i) B-0009, page 21
(ii) B-0009, pages 58, 60 et 61
(iii) B-0017, page 7
(iv) B-0024, pages 47 et 48

Préambule :

Concernant les technologies offertes par Hilo, la référence (i) mentionne :

> *« Dans un premier temps, les mesures visées reposent essentiellement sur le contrôle de charges de chauffage résidentiel. Un avis favorable du Ministère de la Santé et des Services sociaux (MSSS) ayant été émis en mai 2019, les charges de chauffage de l'eau pourront éventuellement s'ajouter, selon la disponibilité d'un produit répondant aux critères anti-légionelle.*
>
> *Éventuellement, des offres pour les clients commerciaux, industriels et institutionnels seront également ajoutées. »*

La référence (ii) présente les tableaux 7.3, 7.5 et 7.7 qui montrent respectivement les mesures du PTÉ regroupé des secteurs résidentiel, CI, PMI ainsi que le coût évité actualisé de chacune des mesures. On peut constater que le coût évité est très différent selon les mesures.

La référence (iii) mentionne :

« Le Distributeur s'attend à ce que l'agrégateur Hilo génère les réductions de puissance, présentées au tableau 3.2 de la pièce HQD-2, document 3, en provenance de la clientèle résidentielle. Les choix technologiques et le rythme de déploiement de celles-ci sont du ressort de Hilo, les réductions de puissance pouvant provenir du contrôle des charges de chauffage de l'espace ou de l'air ou de toute autre source. »

À la page 47 de la référence (iv), le Distributeur mentionne que le montant et les modalités de rémunération de Hilo sont prévus pour la période de 10 ans.

À la page 48 de la référence (iv), à la demande de la Régie de fournir le coût global prévu pour le Distributeur, pour les 3 premières années du programme Hilo, par kW effacé, le Distributeur répond notamment que le « *prix est représentatif des coûts évités de long terme* ».

Requests :

17.1 Please specify whether Hilo has the exclusivity of the implementation of the measures of reference (ii) for the residential, CI and PMI sectors. If necessary, please specify the measures that are exclusive to Hilo.

Anser :

Hilo does not have an exclusive right to implement these measures.

However, the Distributor must accept and pay for the power reductions offered by Hilo up to the Supply Plan targets specified in Section 7.1 of the contract. It therefore has no interest in itself exploiting measures that will be exploited by Hilo.

17.2 Reference (iii) mentions that Hilo has full latitude in prioritizing measures for residential clients. Please indicate whether Hilo has full latitude in prioritizing the measures to be implemented for the CI and PMI sectors.

Answer:

Hilo could eventually introduce an offer for the CI and PMI markets, which would be subject to a change to the service contract. The content of this possible change has obviously not been determined.

17.3 Since the discounted avoided cost is different depending on the measures, and Hilo's amount and terms of compensation are provided for the 10-year period, please indicate whether the compensation is based on the measures implemented..

Answer :

Compensation is based solely on the number of registered participants, erased kWs and power profiles before, during and after a DM event.

LOOSE TRANSLATION

FRAMEWORK CONVENTION FOR ENERGY SERVICES

Between

THE AGREGATOR

And

THE DISTRIBUTOR ·

LOOSE TRANSLATION

DATE:

SEPTEMBER

1,2019

VERSION 0

LOOSE TRANSLATION

BETWEEN:

Services Hilo inc., having a head office at 75 Boulevard Rene Levesque West,, Montreal, (Quebec) H2Z 1A4, represented by Mr. Sebastien Fournier, President ***General Director*** authorized to act as sole representative·

Henceforth designated as the "**Aggregator**"

AND :

HYDRO-QUEBEC, acting through its Hydro-Quebec Distribution division, established as a result of the *Hydro-Quebec* Act(RLRQ, c. H-5), with its headquarters at 75 Rene-Levesque Quest Boulevard, Montreal, Quebec, H2Z 1A4, represented by Monsieur ***[Mr. Eric Filion -President of Hydro-Quebec Distribution]*** (

Henceforth designated as the "**Distributor**";

The Aggregator and the **Distributor** are henceforth designated individually as the **"Party"** and collectively as the **"Parties"**

WHEREAS Hydro-Quenec's distribution and transportation of electricity are subject to the Regie as stipulated in the Loi sur la Regie de l'energie (RLRQ, c. R-6.01);

LOOSE TRANSLATION

WHEREAS the distribution activities of Hydro-Quebec, which include management of energy efficiency programs, are grouped under its division Hydro Quebec Distribution, the Distributor;

WHEREAS the Distributor operates a utility and must provide a safe, affordable and reliable service to a diversified customer base;.

WHEREAS the Distributor requires power demand to limit the price of electricity that it offers its clientele, particularly by avoiding or deferring the costs of new electricity supply over the long term;

WHEREAS the Aggregator has the expertise and technology to deploy a large-scale service of installing and programming home products for the customers of the Distributor to put in place a capacity fleet that will allow the Distributor to offer various demand managementdemand management services;

WHEREAS The Distributor requires the services of the Aggegator to respond to its needs in the field of energy management;

WHEREAS the Aggregator commits itself to develop and offer a portfolio of Energy Services that can meet the Distributor's long-term business needs;

WHEREAS the Parties aim to define by a framework convention (here designated as a **Framework Convention")** guidance applicable to all energy services offered by the Aggregator

· IN CONSEQUENCE, THE PARTIES AGREE ON THE FOLLOWING :

1. DEFINITIONS

In the present Framework Convention, unless the context indicates a different meaning, the following expressions have the following meanings attributed to them:

Contractual year

A 12-month period beginning on December 1st of one year and ending on November 30 of the next year. The first and last contractual years may have less than 12 months.

Service contract

Service contract agreed upon by both Parties as per article 7 for one or more services allowing for the supply of energy services.

Holidays

New Year's Eve, New Year's Day, the day following New Year's Day, Good Friday, Easter Monday, National Patriot's Day, St Jean Baptiste day, Canada Day, Labour day, Thanksgiving, Christmas Eve, Christmas, the day after Christmas and any other iron day applicable to Quebec fixed by proclamation of the federal or provincial governments or any other holiday agreed upon by both Parties.

Day

Monday to Friday, from 8:00 a.m. to 5:00 p.m. Eastern time, excluding holidays

Annual plan

Document provided every year by the Aggregator to the Distributor, and by the latter, as per article 7.

Participant

Physical or moral person that both holds one or more subscriptions with the Distributor and profits from a delivery of service by the Aggregator.

Regie

The Régie de l'énergie instituted in vertue of the Loi sur la Régie de l'energie

(RLRQ, c. R-6,01), or any successor;

Energy services

Various energy services aimed at energy management, managing power demand, and the strengthening of the transport network provided through technological tools as well as all related services, enabling real-time connection of the electricity equipment of the Distrbutor's clientele and the use of Internet of Things technology. These services may include recovery after outage, demand managementdemand management (demand management), the. energy management in residential, commercial and industrial buildings, services of aggregation of renewable energy production.

2. PRIORITY OF DOCUMENTS

All the contractual documents relating to the present Framework Convention complement each other and everything that appears in any of these documents are part of the Framework Convention.

In the event of ambiguity or contradiction between the various documents constituting the contract, the Parties must seek out the common intention of the Parties and, if no agreement can be found, the document prevail over each other in the following order of priority:

Service contract and its annexes

Framework Convention and its annexes

3. **PURPOSE OF THE FRAMEWORK CONVENTION**

This Framework Convention is intended to define the terms appljcable to energy services and the management mechanisms enabling the preservation and development of the business relationship.

4. APPROVAL BY THE RÉGIE

The parties recognize that the present Framework Convention is subject to review by the Regie. Consequently, the Distributor will be able to terminate this Framework Convetion in the eventuality that the Regie would impose conditions that would invalidate or negatively affect the purpose of the Framework Convention.

5. DURATION OF THE FRAMEWORK CONVENTION

Subject to the conditions stated therein, the Framework Convention is valid from the date of signature until ten (10) years after that date.

6. SERVICE CONTRACT

The Parties agree to the conditions of service to be rendered by the Aggregator and its remuneration for each type of Energy Service within the framework of a Service Contract. Each Service Contract is subject to the modalities put forward in the present Framework Convention, barring the existence of provisions expressly contrary to these modalities in the Service contract.

7. 5-YEAR MARKETING PLAN

The Aggregator shall file a summary of its 5-year marketing plan (5) on 1 April of each contractual year so that the Distributor may plan its budgetary needs as well as adjust its energy efficiency programs as required. This summary must at least include the following information:
.

- The lists and description of the new planned Energy Services ;
- The number of customers and tariff rates;
- The annual target (MW and GWh);
- The required budget.

In the eventuality that the Aggregator plans to use the name and logos of the Distributor for the promotion of Energy Services, the Distributor will grant the Aggregator a license of use for its name and logos limited to the purposes in the Marketing Plan according to the parameters agreed to at the time of the Marketing Plan's submission.

The Aggregator is responsible for all marketing activities associated with Energy Services, including campaigns for the promotion of its service, brand management, customer service management and any other business activity required to develop its clientele.

Marketing activities must meet the same quality standard as those of the Distributor.

8. REQUIREMENT FOR ENERGY SERVICES

The Aggregator must meet the requirements of this section to provide Energy Services. All document submissions must be performed according to the schedule in Annex I of this Framework Convention:

8.1 Eligibility of Participants

The Aggregator must maintain online register of all participants and must ensure that the Distributor can be automatically notified of any addition or withdrawal within a 5-day period after the addition or withdrawal. The online must provide all information required by the Distributor to certify the conditions of eligibility of Participants provided for in the Service Contract.

8.2 Confidentiality and data protection

The Aggregator must meet the standard of requirements to which the Distributor is held in matters of data security. The Aggregator is responsible for ensuring the protection and confidentiality of all data obtained by the Distributor and the Participants during the rendering of Energy Services.

8.3 Services to the Customer

The aggregator is responsible for all customer service activities associated with Energy Services.

Customer service provided by the Aggregator must meet the same quality standard as that of the Distributor.

To the extent that the activities of the Aggregator may impact the customer service activities of the Distributor, the Aggregator has the obligation to notify the Distributor of possible impacts in the context of its Annual Plan and implement the required measures, if applicable.

8.4 Technical issues and installation

·The Aggregator is responsible for defining the requirements and standards of installation concerning its products and services according to the standards and regulations applicable.

The Aggregator must put in place all measures required so as not to harm the equipment and customers of the Distributor.

8.5 Information system

It is agreed that the Aggregator does not have access to the Distributor's information systems barring the existence provisions expressly contrary to this in the contract service.

9. LICENSES AND AUTHORIZATIONS

The Aggregator must obtain and maintain all permits and authorizations required by the laws and regulations applicable to the requirements of the Framework Convention.

The Aggregator also commits to undertake all services that could be required while the Service Agreement is in place due to any changes in laws and regulations applicable to the Aggregator.

All costs related to the preceding provisions are paid by the Aggregator.

10. APPROVAL AND REQUIREMENTS OF THE DISTRIBUTOR

Any authorization, approval, acceptance, requirement, inspection, verification or receipt of reports by the Distributor under this Framework Convention has the sole purpose of ensuring compliance with the obligations of the Aggregator under this Framework Convention and does not incur any liability whatsoever, directly or indirectly, nor may be construed in any case as an assessment, certification or caution by the Distributor of the obligations of the Aggregator, nor of its conformity to any permit, authorization or any applicable regulatory or statutory provision. ·

11. MANAGEMENT COMMITEE

11.1 Composition

The Aggregator and the Distributor each designate an employee who will be responsible of the management committee. These persons in charge may, if necessary, name other employees to this committee. The persons in charge of the management committee management will preferably occupy a management position within their respective organizations. These persons in must have the skills and expertise necessary to the exercise of the committee's functions. Each Party may replace a member of the committee by informing (in writing) the other party of the appointment of a new member.

11.2 Meeting

The management committee meets every three months or more frequently if necessary following the request of one of its members in the form a written notice with forty-eight (48) hours' notice. The meetings may be held in person, by telephone, by videoconference or by any other means accepted by the other Party.

11.3 Functions and responsibilities of the committee

The management committee is responsible for:

- ensuring the monitoring of the Marketing Plan and the means put in place to undertake it;
- ensuring the compliance with the requirements of the Framework Convention;
- planning the implementation of new Service contracts ;
- monitoring the proper execution of Service Contracts ;
- overseeing the management of any dispute.

12. NOTICE AND COMMUNICATION OF DOCUMENTS

Any document, notice, demand, acceptance or approval by virtue hereof shall, unless otherwise specified, be made in writing and shall be validly executed if delivered by electronic messaging, or any other means of communication agreed upon by the Parties, to the following addresses and addresses:

Aggregator :

Sebastien Fournier, President Director General, 75, boul: Rene-Levesque Ouest,
20th floor
Montreal (Quebec) H2Z
1A4
sebastien.fournier@9392qc.
o nmicrosoft.com
Distributor :

Anita Travieso, Head of development of existing markets and energy expertise

Hydro-Quebec Distribution Division -
Complexe Desjardins,
Tour Est, 15th floor
Montreal (Quebec) HSB
1H7 Travieso.anita @
hydro.qc.ca ·

LOOSE TRANSLATION

IN WITNESS WHEREOF …

HYDRO-QUÉBEC, acting through its division HYDRO-QUÉBEC DISTRIBUTION

Hilo Services Inc.

By:
Eric Filion
President of Hydro-Quebec Distribution.

By Sebastien Fournier, General Manager Services Hilo inc.

Date Date

LOOSE TRANSLATION

Annex I

Requirements to transmit has the aggregator within 90 days of the signature of the Framework Convention	
7.0 MARKETING	Distributor
8.2 CONFIDENTIALITY AND DATA PROTECTION	Distributor
8.3 SERVICES TO CUSTOMERS.	Distributor

LOOSE TRANSLATION

SERVICE CONTRACT - DEMAND MANAGEMENT

BETWEEN THE AGGREGATOR

AND

. THE DISTRIBUTOR

DATE: 21 AUGUST 2019

VERSION 0

LOOSE TRANSLATION

BETWEEN:

Services Hilo inc., having a head office at 75 Boulevard Rene Levesque West,, Montreal, (Quebec) H2Z 1A4, represented by Mr. Sebastien Fournier, President ***General Director*** authorized to act as sole representative·

Henceforth designated as the "**Aggregator**"

AND :

HYDRO-QUEBEC, acting through its Hydro-Quebec Distribution division, established as a result of the *Hydro-Quebec* Act(RLRQ, c. H-5), with its headquarters at 75 Rene-Levesque Quest Boulevard, Montreal, Quebec, H2Z 1A4, represented by Monsieur ***[Mr. Eric Filion -President of Hydro-Quebec Distribution]*** (

Henceforth designated as the "**Distributor**";

.

The Aggregator and the **Distributor** are henceforth designated individually as the **"Party"** and collectively as the **"Parties"**

WHEREAS the Parties have concluded a framework agreement ("**Framework Convention** ") for all Energy Services;

LOOSE TRANSLATION

WHEREAS by virtue of this Framework Convention, the Parties must conclude a Service Agreement to set a framework for the particular modalities of the services offered and associate payment for those services;

WHEREAS the Parties wish to enter into a Service Contract for demand managementdemand management and associated services for residential customers;

WHEREAS all activities of the Distributor are undertaken within the context of the Loi sur la Regie.

CONSEQUENTLY, THE PARTIES AGREE UPON THE FOLLOWING:

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1. DEFINITIONS

In the present contract, unless the context indicates a different meaning, the following expressions have the following meanings:

Contractual year

A 12-month period beginning on December 1st of one year and ending on November 30 of the next year. The first and last contractual years may have less than 12 months.

Other services

Any value-added services destined for the Distributor of which the development and value depend on the number of clients the Aggregator has, the description of which is provided according to the modalities of the present Contract. These services exclude demand management Services.

Notice of demand management

Request for demand management to the Aggregator transmitted by the Distributor or Carrier by means of electronic mail or other means of automatic communication to the Aggregator that specifies the date and schedule of a DM event.

Customer

Natural or legal person holding one or more ACCOUNTSwith the Distributor. ·

New generation ("smart") meter

Bidirectional communication meter using radio frequencies that can interact with an advanced measuring infrastructure to collect, measure and year analyze of data relating to the consumption of electricity and meeting the technical standards required for the provision of demand management service.

Contract

The present service contract for residential demand management, Other services and all documents referenced herein.

DM Event

Period of four (4) hours for which the Aggregator has received prior notice from the Distributor or the Transporter asking the Aggregator to reduce the Participants' power usage.

Demand management (DM)

Reduction of the Participant's power usage during the Contractual year within the Winter Period, as per this Contract.

Aggregator client

All physical or legal persons that install the Aggregator's automated equipment in their residence, that operate them according to certain determined technical configurations and that consent to the Aggregator's collecting data from said equipment to develop Other services. These physical or legal persons include Participants who subscribe to demand management services.

Participant

Natural or legal person simultaneously holding one or several Distributor accounts and participanting in the Aggregator's demand management services. ·

Peak period

Period of four (4) hours during which the demand of electricity is unusually high, i.e. from 6 am to 10 am and from 17 pm to 21 pm, during the Winter period.

Winter period

Period from 1 December to 31 March of the following year inclusively.

Break-in period

Period covering the first two Contractual years. This period aims to allow the parties to evaluate the demand management Service and Other services including the receptivity and satisfaction of Aggregator Customers, the reliability of the power reduction service and the methods for calculating admissible power reduction and penalties as well as the value and calculation methods for Other services.

Admissible power Reduction (APR)

Power reduction resulting from the service of the Aggregator and calculated by

· The latter and approved by the Distributor (APR is expressed in KW).

Committed Power Reduction

The reduction in power associated with the demand management service that the Aggregator is commited to undertake for a given Winter period.

Regie ·

The Régie de l'énergie instituted by virtue of the Loi sur la Régie de l'energie(RLRQ, c. R-6,01), or any successor;

Demand management (DM) Services

Demand management services are described in article 2 of the Contract.

Carrier

Hydro-Quebec's TransEnergie division.

Expressions used in this Contract that are not defined in this section have the meanings given to them in the Framework Agreement.

2. PURPOSE OF . CONTRACT

The Aggregator provides a service aiming to reduce power demand for Peak periods of the Distributor while maintaining a predefined power profile before the demand management event (preheating) during the event and after (power recovery after the event) (the “demand management Service”).

This profile requires that the Aggregator manage power demand before, during and after the demand management event.

The demand management Service must be performed by the Aggregator who must enlist Participants in a demand management program. The aggregator must be able to control in real time the Participants' energy demand to reduce power demand during Peak periods according to the required power profile.

The Aggregator must also take all necessary means to increase its Clientele in order to develop the Other services.

3. DURATION

The present Contract will be in effect for ten (10) years starting on the date of the last signature of the Contract.

4. APPROVAL OF THE REGIE

Any remuneration of the Aggregator to this Contract is subject to the Regie's approval of the Distributor's budgetary demand..

5. ROLE AND RESPONSIBILITY OF THE AGGREGATOR

The Aggregator is responsible for putting in place the administrative, financial, commercial and technical means to meet the demand management Service's requirements and provide the Other services. In order to demonstrate its ability to meet these requirements, the Aggregator must notably submit the documents provided for in this table 1:

Summary of the 5-year marketing plan and its updates (1)	Before 1 April 2020 and then for each Contractual year, before 1 April
2. Annual media plan (1)	1 September for the first Contractual year and, subsequently, each year before 1 April
3. The annual commitment to reduction of power demand, including: • The power reduction for the Contractual year (in KW); • The number of Participants planned for in the Contractual year	Before 1 October of each year

4. A report detailing: • The calculation of effective power reduction; • The deviations between the effective demand management profile(depending on the method of calculation defined and accepted by the Parties) and the required profile.	Before 1 June of each year
5 List of Other services offered	Before 1 October of each year

TABLE 1- DOCUMENTARY REQUIREMENTS AND SUBMISSION DEADLINE

The description of the required information is presented in Annex II of this Contract. The Distributor reserves the right to require any additional reasonable information to the Aggregator's ability to meet the requirements of the Contract.

6. ELIGIBILITY OF PARTICIPANTS

· The Aggregator is responsible for ensuring that all Participants meet the following eligibility conditions :

- has a New generation meter;
- has an electricity service contract with the Distributor;
- adhered to the consent form found in Annex 1;
- is part of the Distributor's residential clientele subject to Rate D.

6.1 Ineligible Distributor Customers

The Distributor's Clients who are not eligible to become a Participant are:

- the municipal networks and the St-Jean Baptiste de Rouville regional coop ;
- customers of autonomous networks ;
- those who participate in the Distributor's demand management programs or in DM pricing unless otherwise indicated by the Distributor.

The Distributor agrees to give the Aggregator access to smart meter data for any Participant meeting the eligibility requirements.

---

7. ANNUAL DEMAND MANAGEMENT

7.1 Provisional power reduction targets

The table below shows the power reduction targets for which the Aggregator must aim for the indicated years:

Year	2019	2020	2021	2022	2023	2024	· 2025	2026	2027	2028
MW	1, 8	56,7	124,3	274,7	427,9	485,7	529,1	574,1	595.8	620,1

TABLE 1- POWER REDUCTION TARGETS FROM 2019 TO 2028

The Aggregator must put in place the necessary means to power reduction targets shown in this table.

7.2 Annual power reduction commitment

The Aggregator must present its annual power reduction commitment (MW) to the Distributor no later than 1 October preceding the Contractual year. This value corresponds to the committed power reduction (CPR).

This commitment is used for the calculation of penalties in article 9 of this Contract.

7.3 Commitment to the hourly power demand profile

During a demand management event, the Aggregator must manage preheating, peak and recovery periods in order to meet the hourly profile of the required power demand.

The power in kW for each hour should be that described in the two following tables: TABLES 2 AND 3 ARE CONFIDENTIAL

The hourly profile for tables 2 and 3 is based on an eligible power reduction of 1 kW. The hours indicated in the tables are expressed by the start of the hour, e.g. hour 5 signifies the hour from 5:00 to 5:59.

The two preheating periods are:

i) hour 4, hour 5;
ii) hour 14, hour 15, hour 16.

The two recovery periods are:

i) hour 10, hour 11;
ii) hour 21, hour 22.

7.4 Commitment to the duration and availability of the demand management Service

During each winter Period, the Aggregator must respond to all DM Notices of the Distributor or the Carrier until meeting a maximum of hundred and twenty (120) hours of power reduction.

8. NOTICES OF DEMAND MANAGEMENT EVENTS

The Distributor must notify the aggregator of a demand management event by issuing a DM Notice sent by electronic mail or any other means of automatic communication. The Aggregator must, in the shortest possible time, issue an acknowledgment of receipt of the demand management Notice to the Distributor and the Carrier. ·

In the event of an emergency situation for the Carrier, the latter may also issue a Notice of demand management to the Aggregator, also

notifying the Distributor with the same notice. The Aggregator should, as soon as possible, issue an acknowledgment of receipt of the Notice of demand management to both the Distributor and the Carrier.

Before the beginning of the contractual Year, the Distributor, the Carrier and the Aggregator should perform the tests and validations necessary to ensure the reliability of the transmission and receipt of DM Notices. They must also agree on email addresses to use for the issue and acknowledge of receipt of DM Notices.

The Distributor must issue the DM Notices to the Aggregator at the latest by 17:00 of the day before the demand management event, which is held from 6:00 to 10:00 and from 17:00 to 21:00.

The Carrier must issue the Notices of demand management to the Aggregator within a period of one (1) to four (4) hours before the beginning of the preheating period of the demand management event.

9. CALCULATION OF THE ELIGIBLE POWER REDUCTION (EPR)

During the break-in period, before the beginning of the first Contractual year, the Parties must collaborate to come up with different methods of calculation to evaluate the EPR. The summary of these methods is presented in Annex III.

From the start of the Winter period, following each demand management event, the Aggregator applies and tests the methods that have been prepared and performs the calculations of EPR. The Distributor then analyzes and validates the calculations made by the Aggregator.

After the first winter Period, the Parties agree on the methodology that optimizes the precision and the processing time of calculations and that, overall, best meets the Distributor's expectations.

This methodology must be formalized by amending Annex III by 1 September following the first Winter period, at the latest. This methodology becomes applicable to the Contract for the calculation of compensation and penalties during subsequent years.

10. REMUNERATION AND PENALTIES OF THE AGGREGATOR

The Aggregator's compensation is two-fold in nature, one aspect being based on the demand management services, the other relating to the Other services.

10.1 Remuneration and penalties for the demand management services

At the end of each month of the Winter Period, the Distributor pays the Aggregator a sum corresponding to the Eligible power reduction. The calculation of this remuneration is described below :

REPR = PEPR * EPR * MR

where:

REPR = Remuneration for Eligible power reduction

PEPR = Prices for the Eligible power reduction ($/ kW). This price for the First Contractual year is of [redacted] **(confidential)**. For subsequent Contractual years, this price is subject to an indexing of 2% per year.

EPR = Effective Eligible power reduction

MR : Monthly ratio = 1/4. This ratio corresponds to the current month (1) divided by the total number of months of the Winter period (4).

At the end of the Winter period, if there are months for which there were no demand management events, the average eligible power for the months for which there was one or more demand management events is used for the EPR of the months for which there were no demand management events.

Considering that the calculation method of EPR will only be determined at the end of the first Winter period, the EPR used for the calculation of the remuneration for the first Contractual year will correspond to the Committed power reduction (CPR).

After the bresk-in period, at the end of the Winter period, if the EPR calculated according to the methodology agreed upon by the Parties is inferior to the CPR, a new calculation of the remuneration will be made, taking into account the real EPR, and the Aggregator will have to pay the Distributor the amount overpaid.

The Aggregator is penalized for any difference between the Committed energy reduction and the EPR. The calculation of penalties is performed on a monthly basis and the resulting amount must be deducted from the Aggregator's monthly remuneration, as described in the Contract.

The calculation of this penalty is described below:

PUPR = RPNA * PC

where:

PUPR: Penalty for the unattained power reduction($)

UPR: Difference between the Committed power reduction according to subparagraph 7 .2 and the Eligible power reduction (kW) . If UPR is a negative value, no penalty is applied. UPR = EPR - CPR

PC: cost of the applicable penalty ($/kW). This cost must be agreed upon by the Parties during the break-in period.

In the case of a difference between the committed power and the EPR, the Aggregator shall file, within a reasonable delay at the end of each month, a written report citing the reasons explaining its failure to meet its power reduction commitments and putting forward the corrective actions that will be taken to avoid a repeat of this situation in future demand management events.

10.2 . Incentive remuneration for Other services

At the end of each trimester of the Contractual year, the Distributor remunerates or subtracts the sum of [redacted] **(confidential)** per Client of the Aggregator according to fluctuations in the number Clients of the Aggregator had during the last trimester.

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In addition, at the beginning of each Winter period, the Distributor remunerates or subtracts the sum of [redacted] **(confidential)** per Client of the Aggregator for their annual renewal according to the fluctuation in the number of Clients of the Aggregator of the equivalent trimester in previous years.

The amount of that remuneration is based on the year of signature of the Contract and is subject to an annual indexing of 2%.

A the end of the break-in period, the Distributor reserves the possibility of reviewing the remuneration incentive for the Others services, with the understanding that it cannot be less than [redacted] **(confidential)** per addition or subtraction of a Client of the Aggregator.

The Aggregator must provide any supporting exhibits required by the Distributor to attest to the fluctuation in the number of customers of the Aggregator.

11. BILLING ARRANGEMENTS

The Aggregator bills the Distributor on a monthly basis depending on the conditions of the Contract. The bills must contain all necessary, reasonable infromation to calculate the owed amounts.

Any sum to be payed according to the Contract must first be billed by the Aggregator. The bills must be paid within sixty (60) days from the date of the bill. The payment is to be made by electronic transfer to an account designated by each Party, or by any other means of payment agreed upon by the Parties.

If the Distributor does not complete payment within this period, all owed sums will accrue interest, starting on the billing date, at the official interest rate of the Bank of Canada, as published by the latter (www.banqueducanada.ca), plus two (2) percentage points, calculated daily for the number of days actually elapsed, and compounded monthly at that same rate.

The Distributor can challenge a billed amount, either in whole or in part, by giving notice to the other Party within forty-five (45) days of receiving the bill, briefly indicating the reason for the contestation, as well as the contested amount. In this case, the Parties will do everything that is reasonably possible to amicably resolve the issue within a reasonable delay of sixty (60) from the date of the notice. Each Party must nevertheless pay any amount due within sixty (60) days of the date of the bill, even if the amount is contested.

If for a billing period that has been the object of a contestation, it is finally established that part or all of a billed amount was not to be payed, this amount must be reimbursed with interest (calculated according to the aforementioned method) accrued since the billing date.

The delay provided for this contestation procedure does not constitute an extinctive prescription and each Party conserves all contestation rights within the limitation periods provided for in the Civil Code of Quebec.

The Distributor may also, at any time, compensate any liquid and payable debt of the Aggregator in its regard, even any amount of money that the distributor may owe him, subject to having received the invoice from the aggregator.

12. NOTICES AND COMMUNICATION OF DOCUMENTS

Any document, notice, request, acceptance or approval by virtue of the present conditions must, unless otherwise specified, be made in writing and duly executed by electronic mail, to the following representants and addresses.

Aggregator:

Director of Sales and
Marketing Services
Hilo In c.
75, boul. Rene-Levesque Ouest, 20th floor
Montreal (Quebec)
H 2Z 1A4
Courriel:
roytrudel.anik@hy
dro.gc.ca

Distributor :

Head Management and optimization
of supply
Hydro-Quebec Distribution Division
Complexe Desjardins, Tour Est, 24th
floor, Montreal (Quebec) HSB 1H7
travieso.anit
a @
hydro.qc.ca

Any notice, request, bill or approval sent in the manner here provided is deemed received if it is delivered by electronic mail.

If one of the modes of delivery here provided is interrupted, the Parties must use any other delivery method to ensure that the notice, request, bill or approval is delivered to the recipient as quickly as possible.

Each Party must notify the other Party in the here provided manner if there has been a change in electronic mail address. ·

Each Party can design by written notice in writing a representative or electronic mail address for certain specific ends relating to the execution of the Contract .

13. CONTRACT MODIFICATION PROCEDURE

Any modification to this Contract must be agreed to in writing by the Parties and formalized by a rider.

14. TERMINATION

The contract is terminated automatically in the event that the Framework Convention is terminated.

The Distributor may terminate this Contract by issuing a thirty (30) – day notice to the Aggregator, in the event that the Regie impose conditions on the Distributor that would invalidate or negatively affect the purposes of the Contract.

IN WITNESS WHEREOF, THE PARTIES AGREE THAT THE PRESENT CONTRACT ENTERS INTO FORCE ON THE DATE OF SIGNATURE BY THE TWO PARTIES

HYDRO-QUEBEC, acting through its HYDRO-QUEBEC DISTRIBUTION division

By

President of Hydro-Quebec Distribution

Hilo Services Inc.

SebastienYounrier
General Manager Services Hilo inc.

Dated

LOOSE TRANSLATION

Annex I

Consent form

1) Form by which the Client of the Aggregator consents to the Aggregator's collection and use (and/or the Distributor's transmission to the Aggregator) of the data from home automation equipment according to given parameters of use.

2) Form by which the Client of the Aggregator consents to the Aggregator's control of the home automation equipment for the purposes of offer a demand management management service to the Distributor.

[Note : / both forms must be drafted and approved by the Distributor prior any rendering of services by the Aggregator to its clientele.]

Annex ll

Information required for services

1) Summary of the (5-year) marketing plan including the information for the services described in this service contract:

- Number of targeted customers
- annual target (MW)
- Required budget

(2) Summary of the annual media plan including the following information:

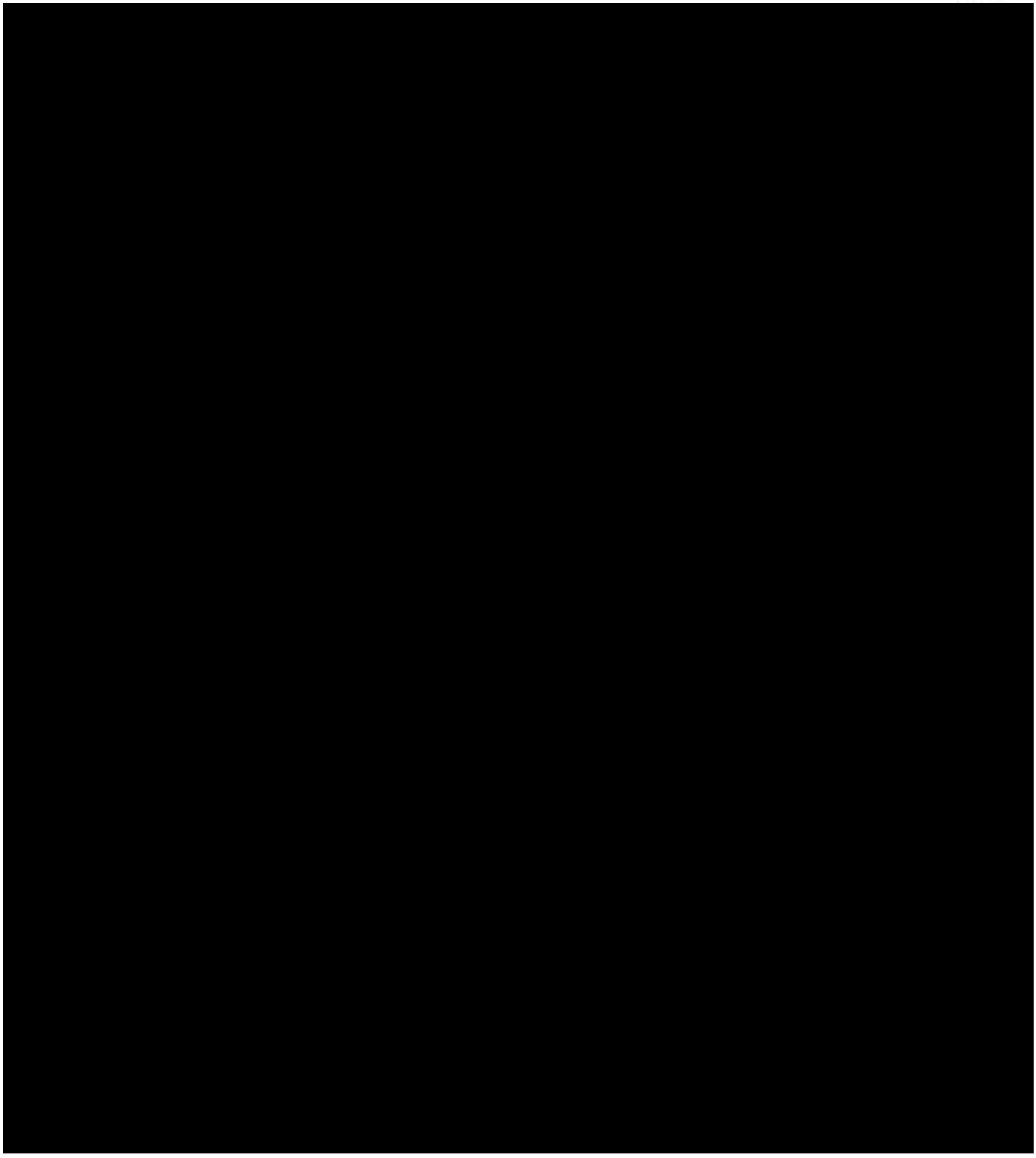
- Annual calendar media investment
- Target clientele and geographic region
- Summary of the message to be transmitted
- Media used (major daily newspapers, web, social networks, etc.)

Annex III

Methodology for the calculation of the Eligible power reduction

(confidential)

LOOSE TRANSLATION



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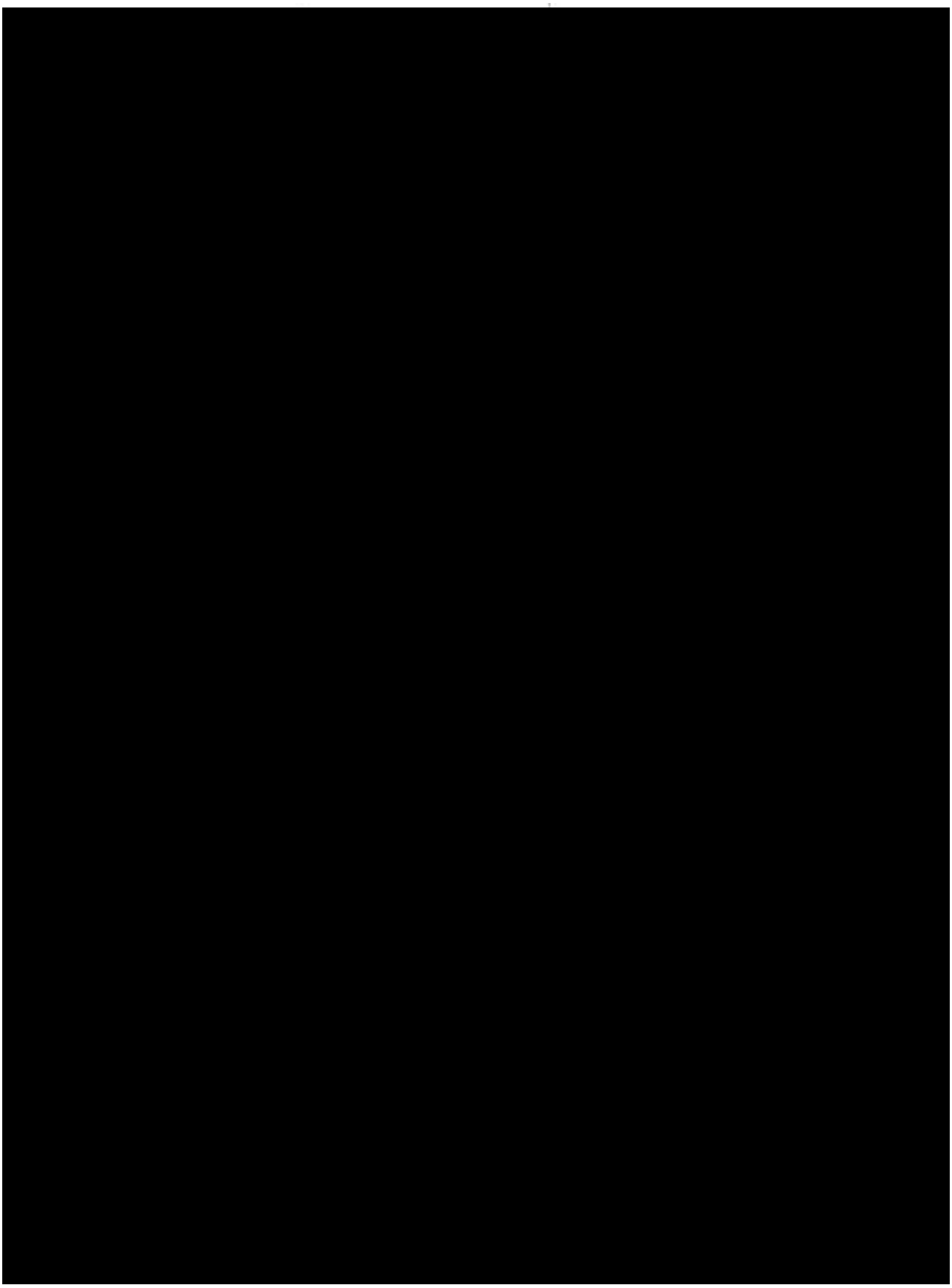

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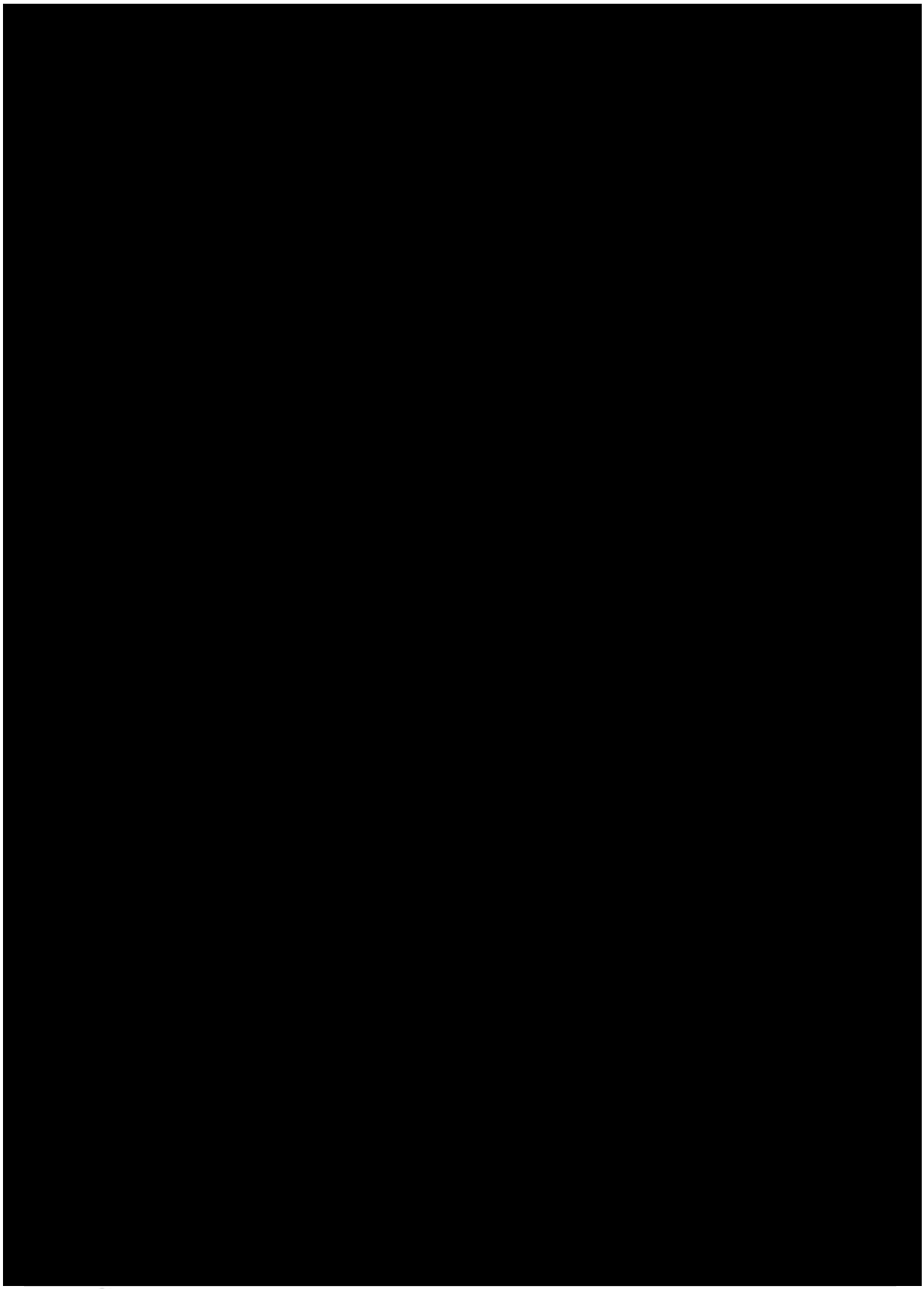

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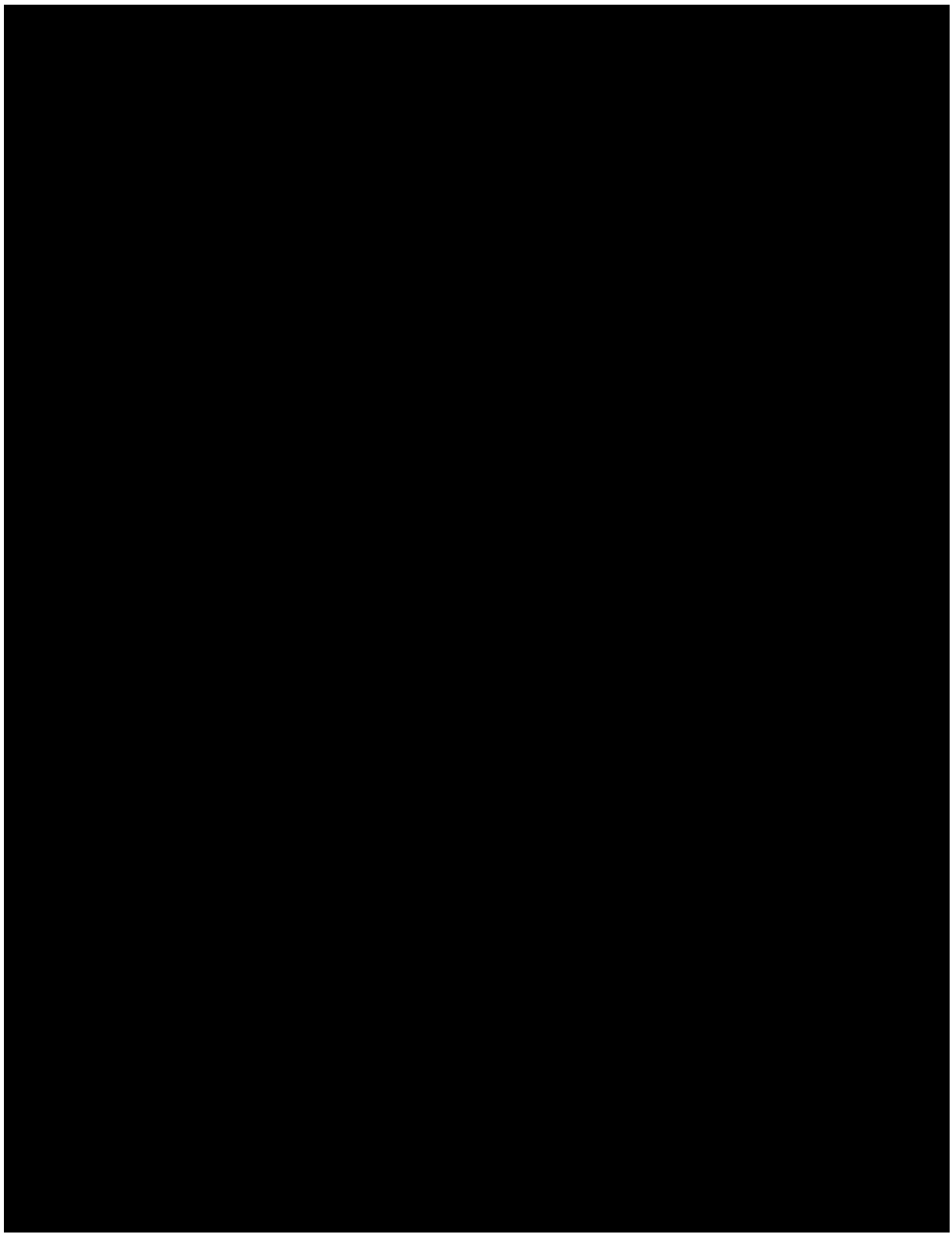

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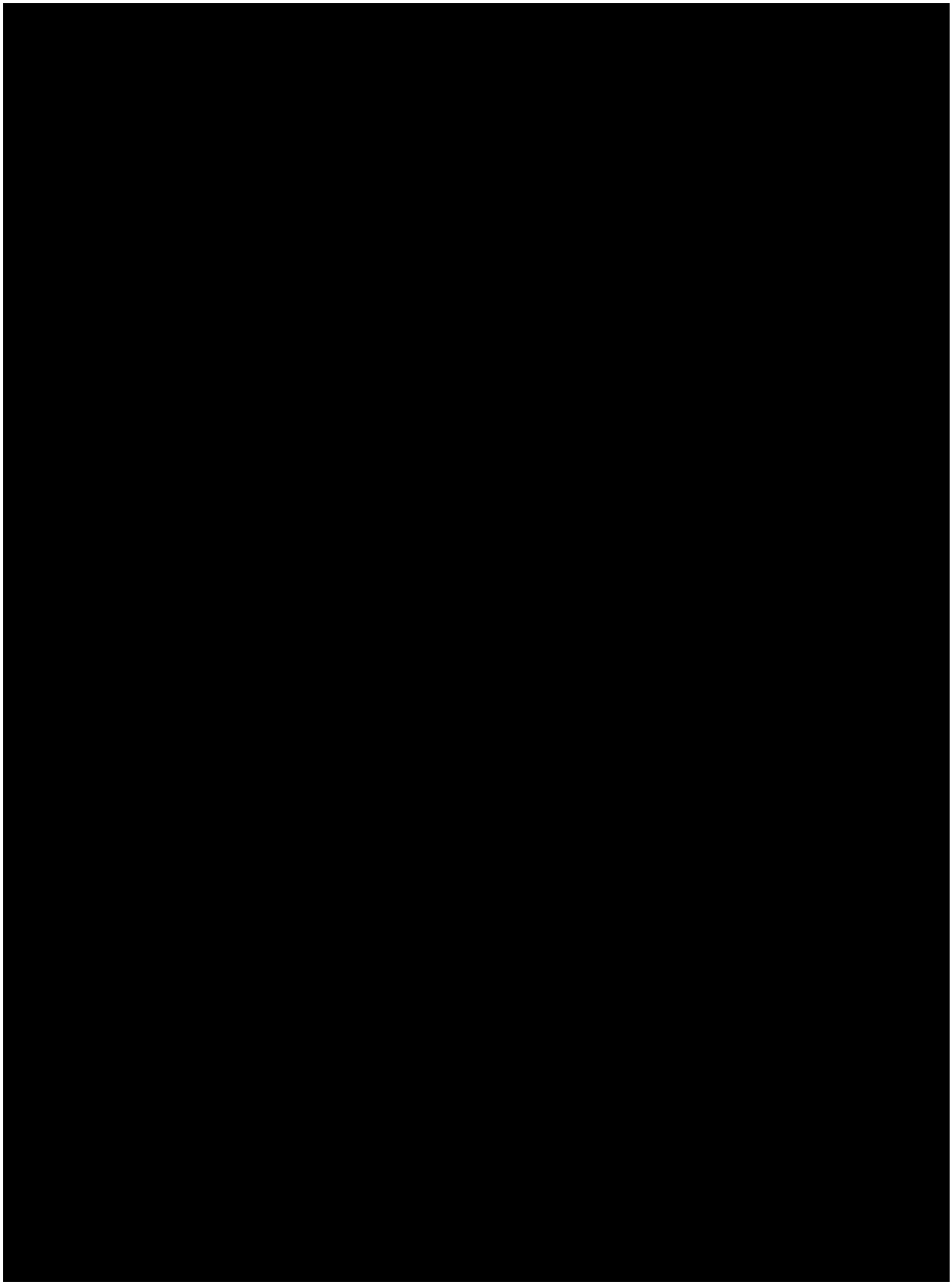

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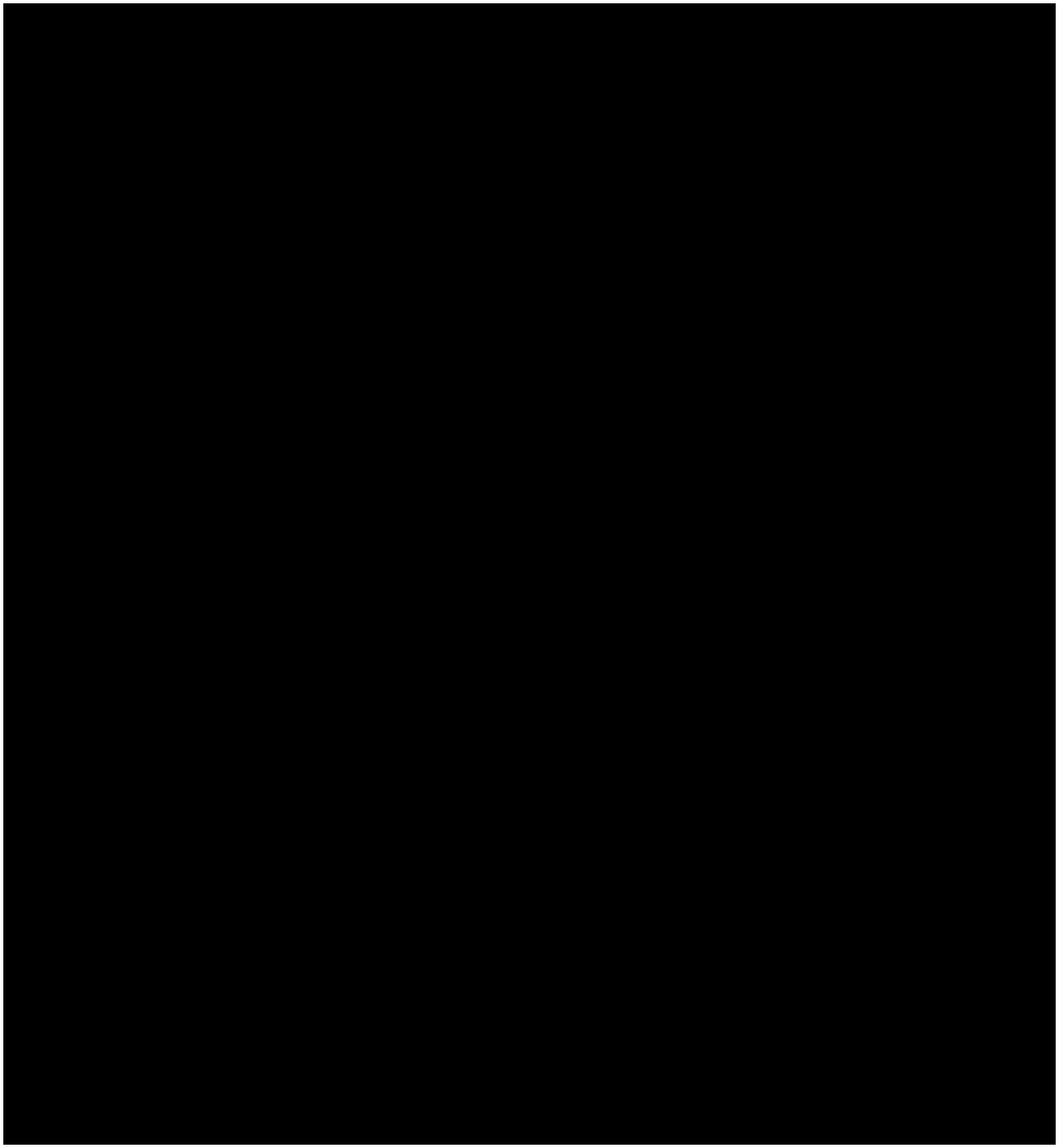

LOOSE TRANSLATION

OBLIGATIONS UNDER ARTICLE 7.0 OF THE FRAMEWORK CONVENTION BETWEEN Hydro-Québec Distribution and Services Hilo inc.

MARKETING REQUIREMENTS

Marketing plan

Marketing plans are adjusted annually and based on successful performance.

Conditions of use of the Hydro-Québec logo and name

Any document, communication tool (letter, website, business card, etc.) or promotion (radio message, print, etc.) bearing the Hydro-Québec logo or statement must comply with the Distributor's rules of use. To this effect, the Directive: *Use of the Hydro-Québec logo, symbol and name* is on pages 2 and 3 of this document.

All necessary approvals under the Contract must be requested and obtained in writing.

Public relations

Any request from the media regarding the Aggregator and the Aggregator's Energy Services will be referred to the Aggregator's public relations manager.

OBLIGATIONS UNDER ARTICLE 8.2 OF THE FRAMEWORK CONVENTION BETWEEN Hydro-Québec Distribution and Services Hilo inc.

PRIVACY REQUIREMENTS AND PROTECTION OF INFORMATION

1. Object

In accordance with the provisions of article 8.2 of the framework convention agreed upon by the parties on October 21, 2019, the Aggregator is committed to comply with the obligations provided for herein. The parties agree that the provisions herein complement and form an integral part of the Service Contract entered into between the parties on October 21, 2019.

2. Definition

Interpretation

Terms in capital letters that are not defined herein have the same meaning given to them in the Service Agreement.

Data

Any information, regardless of its format, communicated by the Distributor to the Aggregator as part of the provision of services described in the Contract as well as any personal information of Participants collected by the Aggregator.

3. Security

3.1. Governance

A. The Aggregator ensures adequate data security, in particular by imposing on its subcontractors having access to the Data cybersecurity and confidentiality requirements at least as demanding as those stipulated in this Agreement.

B. The Aggregator appoints a security manager responsible for implementing all security-related measures and reporting to the Distributor.

C. The Aggregator must implement adequate means to monitor the environment and rapidly detect any security risk and submit its process management of security risks to the Distributor for approval. The Aggregator is committed to informing the Distributor as soon as they are detected, of the risks to which it is exposed and of the action plans associated with them.

D. Physical protection against unauthorized access, damage and disasters endangering the Data is provided by the Aggregator.

E. The Aggregator further declares having received the cybersecurity action plan submitted by the Distributor and is committed to carrying it out according to the schedule agreed upon by the parties.

F. The Aggregator acknowledges that the Distributor may at any time verify compliance with the provisions set out herein and to this end, the Distributor may have access to the premises of the Aggregator as well as to the files containing the Data, including, where applicable, access to databases containing the Data. For any verification of compliance with this clause, the Distributor must proceed no later within three (3) years after the end of the Contract.

3.2. Identity and access management

A. The Aggregator must set up rules - logical and physical – governing access to the Data and must transmit them to the Distributor for approval.

B. The Data must not be found on a device that does not belong to the Aggregator or the Distributor (no BYOD), nor be accessible from such a device.

C. On request, the Aggregator provides the Distributor with an inventory of access profiles giving right to the Data and a list of authorized users.

3.3. Encryption

A. Data communications between the Distributor and the Aggregator are always encrypted.

B. Data identified as sensitive by the Distributor must be encrypted at all times by the Aggregator.

3.4. Vulnerability, incident and investigation management

A. The Aggregator agrees to immediately notify the person responsible for access to documents and the protection of personal information of Hydro-Québec of any loss, theft and / or attempted theft of Data, as well as of any vulnerability or threat that could have an impact on Data security.

B. The Aggregator agrees to promptly inform the Distributor of any other security incident concerning the Data.

C. The Aggregator sends the Distributor a monthly report documenting the data security incidents.

D. The Aggregator must collaborate in any investigation initiated by the Distributor or by a competent authority concerning the confidentiality and security of the Data and provide all the required information within the requested time period.

4. Confidentiality

The Aggregator agrees to ensure the confidentiality of the Data, in particular by complying with the *Loi sur la protection des renseignements personnels dans le secteur privé* RLRQ, c. P 39.1.

Access to the Data must be limited to people who must be aware of it in the context of their duties. Subject to the provisions of Article 3.1 (A) regarding subcontracting, no Data can be communicated to a third party.

The Aggregator may not use the Data for purposes other than those expressly provided for in the Contract or covered by the Participant's consent. In particular, it cannot trade in Data.

The Aggregator agrees to inform the members of its personnel and, where applicable, to ensure that the subcontractor informs the members of its personnel of the obligations stipulated in these provisions and to disseminate all information in this regard relevant.

The Aggregator is prohibited from transmitting Data outside of Canada, the United States of America or within a Member State of the European Union, or entrusting a person or entity outside Canada, the United States of America or a Member State of the European Union with the task of holding, using or transmitting on their behalf this Data in the context of the execution of the contract, before having obtained written authorization from the Distributor.

5. Remedies

The Aggregator recognizes that failure to comply with the provisions of this document will constitute a violation of its contractual obligations which may cause serious or irreparable damage to the Distributor. Consequently, the Aggregator recognizes that the Distributor may, in particular, have immediate recourse to the injunction, and this, subject to all of its other recourse.

6. End of Contract

The end of the Contract does not release the Aggregator from its obligations and commitments regarding data security and confidentiality.

LOOSE TRANSLATION

OBLIGATIONS UNDER ARTICLE 8.3 OF THE FRAMEWORK CONVENTION BETWEEN Hydro-Québec Distribution and Services Hilo inc.

CUSTOMER SERVICE REQUIREMENTS

Telephone access

The Aggregator sets up an infrastructure (toll-free customer line) enabling it to efficiently provide customer support, for example:

- Offering general information on the terms of Energy Services to all customers ;
- Advising clients;
- Monitoring the file with the Participant ;
- Offering technical support ;
- Dealing with customer complaints ;
- any other service.

A voicemail service must be offered outside of business hours.

Email access

A unique email address must be set up.

Website

A website dedicated to Energy Services, accessible to all potential Participants must be set up. This interactive website must include the following components:

- the online agreement form ;
- information and procedures for Energy Services .

Level of service

The level of service for telecommunications services is 24/7 and includes telephone lines, voicemail, email reception, access to recorded calls for listening, internet links, etc.

The Aggregator must be able to meet the following levels of service:

Service	Required level

Minimally offer support periods between 7 a.m. and 6 p.m. EST (EST / EDT)	Monday to Friday inclusively
offer telephone support in French from Monday to Friday inclusively, between 7 a.m. and 6 p.m. (EST / EDT)	immediate response

The Aggregator's customer service must also be able to meet at least the following levels of service:

Telephone service factor (TSF) (new subscription)	80 calls answered in 60 seconds
Average response time (ART)	100 seconds
Telephone service factor (TSF) (already subscribed)	80 calls answered in 120 seconds
Average response time (ART)	160 seconds
E-mail processing cefficient	80 emails processed in 24 hours
Expected percentage of call abandonment	12%

The Aggregator must explain the reasons for failure, in the event of a problem with availability or the level of services.

Procedure for complaints and claims

The Aggregator must provide an appropriate complaints and claims handling service. The Aggregator must establish a formal escalation process to allow adequate handling of complaints from customers, from Participants. At any time, the Distributor may request a full report of the complaints and claims received, as well as a copy of any document that the Distributor considers appropriate.

Training

The Aggregator is responsible for training the human resources who take part in the Energy Services under its charge. It must in particular ensure that the employees who will be in contact with potential Participants can adequately answer questions relating to the Energy Services and all that relates to it (eligibility conditions, registration, additions, etc.).

Distributor customer service

Although the Aggregator's telephone number is used in customer communications, the Distributor expects to receive calls regarding the Aggregator's energy services. These calls will be referred to the Aggregator’s telephone number or, if applicable, to the Aggregator's website.

Customer satisfaction

The Aggregator is fully responsible for the overall satisfaction of customers and Participants at all stages of the Energy Services. Consequently, the Distributor reserves the right to carry out a sample assessment of the general satisfaction of customers and Participants. If these results demonstrate that the satisfaction rate is less than 70%, the Aggregator will have to suggest ways to improve its intervention or operating methods in order to reach the 70% threshold.

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N° 1 DU ROEÉ (VERSION CAVIARDÉE)

PROGRAMME HILO — CHOIX DE L'AGRÉGATEUR

3. Références

i) B-0017, HQD-4, document 1 - Complément de preuve, page 6

ii) B-0024, HQD-5, document 1, page 27-30, Réponses d'Hydro-Québec aux questions 9.1.1 et 9.1.2 de la Demande de renseignements no.1 de la Régie de l'énergie

iii) B-0009, HQD-2, document 3, page 18, Complément d'information du Plan d'approvisionnement - Approvisionnements, Tableau 3.2 : Bilan de puissance 2020-2029

iv) R-3864-2013, B-0005, HQD-1, document 1, page 28, Plan d'approvisionnement 2014-2023 - Réseau intégré, Tableau 4-3 : Bilan en puissance 2014-2023

v) *Loi favorisant la surveillance des contrats des organismes publics et instituant l'Autorité des marchés publics*, L.Q. 2017, c. 27, page 3 (Notes explicatives), art. 38, 67,19, 26, 34,

Préambule

Réf. i) :

« En prenant en considération les limites de son périmètre d'activités réglementées et l'effort requis pour un déploiement de masse, il a choisi de mandater l'agrégateur Hilo, une filiale non réglementée en propriété exclusive d'Hydro-Québec, active dans le marché de la Maison intelligente pour développer le marché de la GDP résidentielle au Québec et contribuer à l'équilibre de son bilan de puissance.

Constitué de spécialistes d'expérience en développement de nouveaux produits et d'entreprises technologiques, Hilo détient l'expertise commerciale et technologique pour déployer à grande échelle un service d'installation et de programmation de produits de domotique à la clientèle. La filiale a, de plus, pu bénéficier d'un transfert des connaissances acquises par le Distributeur, par le biais notamment des projets pilotes et des travaux réalisés pour le compte de ce dernier par les chercheurs de l'Institut de recherche d'Hydro-Québec (IREQ). Le recours à cet affilié, dédié au déploiement de ce nouveau moyen, permet un développement coordonné de services énergétiques parfaitement adaptés aux besoins du Distributeur afin d'assurer la fiabilité du réseau ainsi que la sécurité et la confidentialité des données. » (nous soulignons)

Réf : ii)

« Demande :

9.1 Le Distributeur a choisi de conclure un contrat de gré à gré avec l'agrégateur Hilo, une filiale non réglementée en propriété exclusive d'Hydro-Québec (références [ii] et [iii]), pour déployer le nouveau moyen de gestion de la puissance décrit en référence (iii) comme mesure d'efficacité énergétique (référence [i]).

La Régie comprend que le Distributeur a choisi de conclure un contrat de gré à gré avec l'agrégateur Hilo et que ce choix a été effectué sans recours préalable à la procédure d'appel d'offres prévue à l'article 74.2 de la Loi sur la Régie de l'énergie. Veuillez commenter la compréhension de la Régie.

Réponse :

La compréhension de la Régie est exacte.

9.1.1 Veuillez notamment justifier pourquoi, le cas échéant, le Distributeur considère que ce moyen de gestion de la puissance ne constitue pas un approvisionnement assujetti à ladite procédure. Veuillez élaborer.

Réponse :

Le Distributeur rappelle que l'obligation de procéder à un appel d'offres conformément à la procédure prévue à l'article 74.1 de la LRÉ s'applique pour les contrats d'approvisionnement en électricité requis afin de satisfaire les besoins des marchés québécois qui excèdent l'électricité patrimoniale. Or, tel n'est pas le cas avec Hilo. Le service offert par cette dernière vise au contraire une économie dans l'utilisation des ressources énergétiques présentement disponible chez les clients du Distributeur, permettant ainsi de repousser un appel d'offres pour l'acquisition d'approvisionnements de long terme. Il ne peut donc s'agir d'un "contrat d'approvisionnement en électricité" au sens de la LRÉ.

Les arguments énoncés par la Régie au paragraphe 173 de sa décision D-2019-164 s'appliquent *mutatis mutandis* :

> [173] De plus, aux fins de son interprétation, la Régie juge déterminant le fait que le Programme soit, d'une part, un produit de puissance résultant de l'effacement ou de l'interruption à la pointe des participants et, d'autre part, qu'il soit extrait des ressources déjà disponibles. Cette dernière caractéristique suffit

pour justifier l'exemption du Programme de la procédure d'appel d'offres visant l'acquisition de nouvelles ressources afin de fournir la puissance requise pour combler les besoins des marchés québécois. » (nous soulignons)

Réf iii) :

TABLEAU 3.2 :
BILAN DE PUISSANCE

Hiver (1er décembre au 31 mars) En MW	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029
BESOINS À LA POINTE	38 783	39 489	40 196	40 550	40 815	41 056	41 139	41 064	41 287	41 522
Réserve pour respecter le critère de fiabilité	3 661	3 745	3 817	3 915	3 997	4 051	4 086	4 088	4 115	4 143
BESOINS À LA POINTE - INCLUANT LA RÉSERVE	42 445	43 234	44 013	44 464	44 812	45 106	45 225	45 152	45 402	45 666
APPROVISIONNEMENTS										
Approvisionnements planifiés										
Électricité patrimoniale	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442
Contrats avec HQP	1 100	1 450	1 500	1 500	1 500	1 500	1 100	1 100	500	500
Autres contrats de long terme	1 827	1 925	1 935	1 954	1 945	1 967	1 970	1 926	1 844	1 746
• Éolien [1]	1 467	1 477	1 486	1 486	1 486	1 486	1 489	1 445	1 405	1 361
• Biomasse	257	345	345	345	337	337	337	337	295	241
• Petite hydraulique	103	103	103	122	122	144	144	144	144	144
Gestion de la demande en puissance	1 315	1 779	2 217	2 491	2 838	2 983	3 004	2 751	2 781	2 815
• Électricité interruptible	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
• Interventions en gestion de la demande en puissance	315	779	1 217	1 411	1 658	1 683	1 584	1 331	1 361	1 395
- Programme GDP Affaires	*280*	*330*	*385*	*420*	*505*	*510*	*515*	*515*	*515*	*515*
- Interruption chaînes de blocs	*25*	*375*	*682*	*682*	*682*	*636*	*479*	*173*	*173*	*173*
- Tarification dynamique	*9*	*17*	*26*	*34*	*43*	*52*	*60*	*69*	*77*	*86*
- Hilo	*2*	*57*	*124*	*275*	*428*	*486*	*529*	*574*	*596*	*621*
• Moyens additionnels potentiels	0	0	0	80	180	300	420	420	420	420
Abaissement de tension	250	250	250	250	250	250	250	250	250	250
Puissance additionnelle requise										
Contribution des marchés de court terme	500	400	650	850	850	950	1 100	1 100	1 100	1 100
Approvisionnement de long terme	0	0	0	0	0	0	350	600	1 500	1 800

Note (1) : Contribution équivalente à 40 % de la puissance contractuelle, en vertu du service d'intégration éolienne.

Réf iv) :

TABLEAU 4-3
BILAN EN PUISSANCE

En MW	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Besoins à la pointe visés par le Plan	37 374	37 268	37 607	37 954	38 337	39 031	39 397	39 726	40 036	40 340
+ Réserve pour respecter le critère de fiabilité	3 562	3 647	3 922	4 125	4 167	4 242	4 372	4 408	4 441	4 474
- Électricité patrimoniale	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442	37 442
- Approvisionnements non patrimoniaux [1]	**2 844**	**3 114**	**3 338**	**3 588**	**3 769**	**4 298**	**4 498**	**4 618**	**4 668**	**4 668**
* TransCanada Energy	0	0	0	0	0	0	0	0	0	0
* HQP - Base et cyclable	600	600	600	600	600	1 000	1 000	1 000	1 000	1 000
* Autres contrats de long terme [1]	994	1 264	1 488	1 538	1 669	1 748	1 748	1 818	1 818	1 818
* Biomasse (incluant Tembec)	181	265	326	376	376	376	376	376	376	376
* Éolien : 4000 MW [1]	766	935	1 098	1 098	1 229	1 308	1 308	1 378	1 378	1 378
* Petite hydraulique : 150 MW	48	64	64	64	64	64	64	64	64	64
* Gestion de la demande en puissance	1 000	1 000	1 000	1 200	1 250	1 300	1 500	1 550	1 600	1 600
* Électricité interruptible	850	850	850	850	850	850	850	850	850	850
* Contrats d'interruptible avec Alouette	150	150	150	300	300	300	450	450	450	450
* Autres interventions en gestion de la demande en puissance	0	0	0	50	100	150	200	250	300	300
* Abaissement de tension	250	250	250	250	250	250	250	250	250	250
= Puissance additionnelle requise	**650**	**360**	**750**	**1 050**	**1 290**	**1 530**	**1 830**	**2 070**	**2 370**	**2700**
* Contribution des marchés de court terme	650	360	750	1 050	1 290	1 500	1 500	1 500	1 500	1500
= Puissance additionnelle requise (Besoins arrondis au 10 MW près)	**0**	**0**	**0**	**0**	**0**	**30**	**330**	**570**	**870**	**1 200**

Note (1) : La puissance associée aux approvisionnements éoliens tient compte du refflentissement en puissance associé au service d'intégration qui établit une contribution totale garantie équivalente à 35 % de la puissance contractuelle.

Réf v) :

« **NOTES EXPLICATIVES**

[…]

Par ailleurs, la loi modifie la Loi sur les contrats des organismes publics et les lois régissant les organismes municipaux afin d'obliger les organismes à publier un avis d'intention avant de conclure certains contrats de gré à gré et à se doter d'une procédure portant sur la réception et l'examen des plaintes qui leur sont formulées dans le cadre de l'adjudication ou de l'attribution d'un contrat. » (page 3) (nous soulignons)

« §2. Processus d'attribution

38. Toute personne ou société de personnes intéressée, ainsi que la personne qui la représente, peut porter plainte à l'Autorité relativement à un processus d'attribution d'un contrat public lorsque, après avoir manifesté son intérêt à réaliser le contrat auprès de l'organisme public ayant publié l'avis d'intention requis par la loi, elle est en désaccord avec la décision de l'organisme public. La plainte doit être reçue par l'Autorité au plus tard trois jours suivant la réception par le plaignant de la décision de l'organisme public. Lorsque ce délai expire un jour férié, il est prolongé au premier jour ouvrable suivant. Aux fins du présent alinéa, le samedi est assimilé à un jour férié, de même que le 2 janvier et le 26 décembre. » (page 19) (nous soulignons)

« CHAPITRE VII

RÉSILIATION DE PLEIN DROIT

67. Tout contrat public conclu à la suite d'un processus d'adjudication ou d'attribution continué par un organisme public soit avant que l'Autorité ait rendu sa décision à l'égard d'une plainte portée en vertu de l'une ou l'autre des sections I et II du chapitre IV, soit, sous réserve de l'article 25.0.1 de la Loi sur les contrats des organismes publics, en contravention d'une ordonnance rendue par l'Autorité en vertu de l'un ou l'autre des paragraphes 1° et 2° du premier alinéa de l'article 29, est résilié de plein droit à compter de la réception par l'organisme et son contractant d'une notification de l'Autorité à cet effet.

De plus, un contrat conclu de gré à gré par un organisme public sans avoir fait l'objet de la publication de l'avis d'intention prévue par la loi est résilié de plein droit à compter de la réception par l'organisme et son contractant d'une notification de l'Autorité à cet effet.

Le présent article ne s'applique pas à un contrat d'un organisme municipal. » (page 26) (nous soulignons)

« 94. Cette loi [la *Loi sur les contrats des organismes publics* (L.Q., ch. C-65.1)] est modifiée par l'insertion, après l'article 13, des suivants :

« 13,1. L'organisme public doit, au moins 15 jours avant de conclure de gré à gré un contrat en vertu du paragraphe 4° du premier alinéa de l'article13, publier dans le système électronique d'appel d'offres un avis d'intention permettant à toute entreprise de manifester son intérêt à réaliser ce contrat.

Questions

3.1. In relation to reference i), please specify whether the boundaries of the regulated scope of activities require or allow the mandate to be granted to an unregulated entity? In other words, is it an obligation or a business choice on the part of Hydro-Québec in its distribution activities?

Answer :

It is a choice on the Distibutor's part.

3.2. Please explain the boundaries of the scope of regulated activities that Hydro-Québec has taken into account for its decision to mandate Hilo or another unregulated company.

Answer :

In its decision to mandate an unregulated company, the Distributor considered a number of factors, including the importance of being able to provide a superior customer experience, which translates into a deployment of a technological infrastructure downstream of the meter. Also, an unregulated company may be able to more easily enhance the offer of complementary products or services to customers.

.

3.3. Please explain the effort required for a mass deployment referred to in (i) that prevents Hydro-Québec from carrying out the expected aggregation services for Hilo.

Answer :

As foreseen in the supply plan, Hilo's services will reach several hundred thousand participants. However, the Distributor does not have the structure to reliably market and operate such services to so many customers.

.

3.4. What do you think is the practical and monetary value of the transfer of knowledge acquired by the Distributor in reference (i) that Hilo has benefited from?

Answer :

See the answer to question 2.6 of the request for information No. 1 of l'AQCIE-CIFQ in HQD-5, document 3.

3.5. Please indicate whether you believe the reliability of the distribution network and the security and confidentiality of the data referred to in (i) can only be ensured by Hilo, and not by any other existing company.

Answer :

This is not the Distibutor's opinion.

However, this is the first implementation of this type of demand management approach for Hydro-Québec's residential customers. For this reason, the company considered it prudent and simpler to mandate a subsidiary to do so.

3.6. Please specify and file Hilo's guarantee regarding network reliability and data security and confidentiality.

Answer :

These provisions are included in the framework agreement between Hilo and the Distributor, which is filed in Appendix A of HQD-5, Document 3.

3.7. In response to question 9.1.1 of the Régie (reference ii), Hydro-Québec submits that it was not required to tender in accordance with the procedure under section 74.1 of the LRÉ because the power acquired by means of managing the power demand does not constitute a post-heritage supply. How would the Régie and the ROEÉ not be justified in concluding that there is a contradiction between this assertion and the fact that the contribution of the power management means is listed in the balance sheet in power indicated in reference iv) in the category of non-heritage supplies?

Answer :

Section 74.1 of the LRÉ provides the cirmustances under which the Distributor must tender. It does not set the rules for the capacity balance.

See also the answers to questions 2.1 to 2.3 of the FCEI in HQD-5, document 6.

3.8. In response to question 9.1.1 of the Régie (reference ii),), Hydro-Québec refers to the arguments made by the Board in paragraph 173 of its decision D-2019-164 with respect to the DM Business Program which stipulate that it is a power product resulting from peak reductdion or interruption of the participants and, on the other hand, that it be removed from the resources already available. Please justify this position when the Régie's decision on the tender under the DM Business program was for the direct acquisition of power from customers, whereas in Hilo's case, it is rather the indirect acquisition of power via an aggregation service from a third party.

Answer :

In either case, it is a measure aimed at saving money in the use of the energy resources made available through the Distributor's customers.

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3.9. As indicated in reference v), please indicate whether Hydro-Québec has issued a notice of intent to enter into an over-the-counter agreement with Hilo as required by the *Loi sur l'Autorité des marches publics*? If so, please file it. If not, has Hydro-Québec reviewed the application of this law? Please justify your decision not to publish such a notice.

Answer :

The issue goes beyond the scope of this file.

3.10. Please confirm or disprove the understanding of the ROEÉ. The aggregation of loads that Hilo would practice would be impossible to achieve without the use of interconnecting meters among Hydro-Québec customers.

Réponse :

1 **Le Distributeur le confirme.**

PROGRAMME HILO — VALEUR DE L'EFFACEMENT

4. Références

i) B-0024, HQD-5, document 1, page 48, Réponse d'Hydro-Québec à la question 10.19 de la demande de renseignements no.1 de la Régie de l'énergie

ii) B-0032, HQD-4, Document 4, pages 6, 8 et 9, Complément de preuve — Mise à jour des coûts évités

Préambule

Réf. i) :

« **10,19** Veuillez fournir le coût global prévu pour le Distributeur, pour les 3 premières années du programme Hilo, par kW effacé.

Réponse :

Le déploiement d'une gamme de services centrés sur la maison intelligente fait partie des actions priorisées par Hydro-Québec dans son Plan stratégique 2020-2024 pour accroître son offre auprès de sa clientèle et augmenter sa satisfaction. Hydro-Québec considère le service offert par Hilo comme une activité structurante dans son offre de services en permettant aux clients participants de contribuer de façon concrète à la transition énergétique en ayant accès à divers services de domotique leur permettant de participer à l'effort collectif de réduction de la consommation énergétique. Ce service permet en outre de répondre à la demande des clients qui souhaitent qu'Hydro-Québec aille plus loin dans son offre et les accompagne dans l'introduction des nouvelles technologies et dans la gestion de leur consommation énergétique, et ce, en maintenant de hauts standards en matière de confidentialité des données personnelles.

Pour le Distributeur, dont les besoins en puissance à approvisionner sont en croissance, Hilo donne accès à un nouveau moyen d'approvisionnement flexible, sûr et parfaitement adapté à ses besoins, auprès d'un bassin de clients non encore exploité par les moyens actuellement disponibles.

Conscient des coûts importants liés au développement d'un tel service, le Distributeur souligne que son lancement coïncide avec le début d'un cycle de plafonnement des tarifs pour les quatre prochaines années, ce qui implique que la clientèle ne sera pas affectée

par les coûts du service pendant cette période. En fait, ces coûts ne seront intégrés aux revenus requis du Distributeur qu'en 2025, soit lorsque le service d'Hilo aura atteint une certaine maturité et que le Distributeur pourra en tirer le maximum de bénéfices.

Dans l'intervalle, le Distributeur s'est appliqué à obtenir un prix représentatif des coûts évités de long terme et travaille à estimer les bénéfices pour le réseau et environnementaux plus difficilement quantifiables à ce stade mais rendus possibles par les technologies mises en place par Hilo. Le déploiement de cette infrastructure technologique pérenne en aval du compteur par Hilo permettra d'élargir graduellement la gamme de services selon les besoins du réseau d'Hydro-Québec. Cette infrastructure permettra en outre d'accueillir davantage de ressources énergétiques distribuées auprès de sa clientèle sans mettre à risque le réseau et la fiabilité du service d'Hydro-Québec, le tout, dans le respect de hauts standards de sécurité.

Le Distributeur est d'avis que le prix payé pour un tel service doit demeurer confidentiel, puisque commercialement sensible, particulièrement dans le contexte où il existe peu de joueurs dans ce marché en émergence. » (nous soulignons)

Réf. ii) :

« 2,2 Signal de coût évité de la puissance

Le bilan de puissance du Distributeur prévoit le besoin pour un approvisionnement de long terme à compter de l'hiver 2025-2026, et ce, considérant une contribution des marchés de court terme de 1 100 MW, comme mentionné au Plan.

• Pour les hivers 2019-2020 à 2024-2025, le signal de coût évité est de 20 $/kW-hiver ($ 2019, indexé à l'inflation) et reflète le coût d'approvisionnement sur les marchés de court terme pour un approvisionnement en puissance de type UCAP ;

• À compter de l'hiver 2025-2026, le signal de coût évité est de 115 $/kW-an ($ 2019, indexé à l'inflation). Ce signal est basé sur le coût moyen de la puissance des soumissions retenues dans le cadre de l'appel d'offres de long terme A/O 2015-01. » (page 6)

« **3. COÛTS ÉVITÉS DE TRANSPORT ET DE DISTRIBUTION**

Méthodologie de calcul

Comme l'a mentionné le Distributeur au dossier R-4057-2018, une mise à jour de la méthodologie d'établissement des coûts évités de transport et de distribution a été initiée en 2019. Grâce à cet exercice, le Distributeur a validé avec toutes les parties prenantes3

la méthodologie utilisée jusqu'à présent et s'est assuré de sa pertinence. Elle a donc été maintenue et reconduite pour l'année en cours.

Par ailleurs, à la suite de la révision de la durée de vie des équipements sur les réseaux de transport et de distribution, le calcul de l'annuité se base désormais sur la durée de vie pondérée des équipements. Cette dernière a été révisée à 57 ans pour les équipements de transport et à 45 ans pour ceux de distribution.

Le Distributeur a décidé de déterminer la valeur des coûts évités annuellement et de retenir une moyenne mobile afin d'assurer une stabilité dans le signal utilisé dans les analyses économiques. Pour l'année 2019, les coûts évités sont respectivement de 16,70 $/kW pour la distribution et 48,21 $/kW pour le transport ($ 2019). » (page 8)

p.9 « **3,2 Application des coûts évités**

Aux fins des analyses économiques, les coûts évités sont sollicités pour aider à la prise de décision. L'application des coûts évités aux différents programmes de gestion de la puissance se base sur le service rendu par ces derniers. Contrairement aux programmes en efficacité énergétique, qui assurent un effacement permanent de la charge, les différents programmes de gestion de la demande en puissance n'assurent pas automatiquement un report des investissements en croissance sur les réseaux de transport et de distribution.

Pour être en mesure de s'appuyer sur un signal pertinent, certains critères doivent être considérés pour attribuer les coûts évités de transport et de distribution. Ces critères ont été déterminés avec les planificateurs des réseaux de transport et de distribution dans le cadre du comité technique4. » (nous soulignons)

Demandes

4.1. Please confirm or correct ROEE's understand : the value of the reduction controlled by Hilo reflects the sume of avoided costs for supply, transmission and distribution, that is almost 180 $/kW (115 $/kW-an + 16,70 $/kW + 48,21 $/kW=179,91 $/kW) as of 2025-2026, while the value of reductions from dyanamic pricing are equal to avoided supply costs.

Réponse :

Regarding the value resulting from dynamic pricing, see our response to question 14.3 of UC in HQD-5, document 11.

Concerning Hilo, the avoided costs to consider must also take into account the different elements mentionned in s. 3.2 of HQD-4, doc. 4 (B-0032).

[redacted]

[redacted]

[redacted]

See also the answers to questions 1.1 et 4.1 of Enquiry no 1 of the AQCIE-CIFQ in Exhibit HQD-5, document 3.