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

Contenu

LOOSE TRANSLATION

HQD - SUPPLEMENTARY EVIDENCE ON HILO

HQD-4, doc. 1

2019-12-13

Contents

In decision D-2019-157[1], the Régie requests that the Distributor produce a supplement of evidence which includes the following information:

- Descriptions of the conditions of access to the products and services offered by Hilo, specifying if there are restrictions relating to the conservation of membership of customers at certain rates or the Distributor's pricing options [section 3.1]
- Descriptions of the technologies offered, including those used to control the consumption of certain loads by specifying the manner in which these charges will be controlled and divided between the Distributor, the Hilo subsidiary and participating customers[sections 2.1 and 2.2]
- An annual breakdown of the number of participants, according to the assumptions used between residential, commercial, industrial and institutional customers, specifying the kind of load (heating of space, heating of water and other loads that may be reduced) [section 2.3] ;
- Descriptions of erasure hypotheses , by participant and by type of load [section 2.4] ;
- Descriptions of the form and amount of compensation provided to the participants [section 2.5] ;
- Report of the results and conclusions of the " Residential Interruptible loads" projects summarized in file R-4057-2018 [section 4] ;
- Explanation of the method used by the Distributor to distinguish between the impacts by Hilo's power and those in dynamic pricing, as well as a demonstration that there is no overlap between the two interventions [section 3.2].

The present exhibit is designed to respond to the various requests for information, according to the sections indicated above, in the context of the business relationship that the Distributor maintains with the aggregator Hilo.

1. CONTEXT AND NATURE OF THE BUSINESS RELATIONSHIP BETWEEN THE DISTRIBUTOR AND THE AGGREGATOR HILO

As mentioned in section 3.1 of part HQD-2, Document 3 (B-0009), the needs to be met is growing over the period covered by the 2020-2029 Supply Plan (Plan), notably as a result of the efforts of market development and of electrification of transport. To meet its capacity needs and postpone acquiring long-term supplies, the Distributor is counting on the development of demand management (GDP). It thus wishes to exploit the potential of GDP for all the categories of customers, including those of the residential customer, for which the offer is more limited to date.

[1] Paragraph 13.

To achieve this objective, the Distributor has created several pilot and demonstration projects in the past that have confirmed the potential of the GDP for the residential market and the important marketing efforts required to exploit it. By taking into consideration the limits of its scope of regulated activities and the effort required for a mass deployment, the Distributor chose to mandate the aggregator Hilo, an unregulated subsidiary wholly owned by Hydro-Québec, active in the *Smart Home* market, to develop the market of residential GDP in Quebec and contribute to its capacity balance.

Made up of experienced specialists in the development of new products and technology companies, Hilo has commercial and technological expertise to deploy a large-scale installation and programming service for home automation to the customer. The subsidiary has, in addition, been able to benefit from a transfer of knowledge acquired by the Distributor, especially by way of pilot projects and work carried out for the account of the latter by the researchers of the Hydro-Québec Research Institute (IREQ). The use of this affiliate, dedicated to the deployment of this new means, allows a coordinated development of energy services perfectly suited to the needs of the Distributor to ensure the reliability of the network as well as the security and the confidentiality of data .The Distributor is confident that all of these elements will contribute to the success of this means of power management and justifies the use of this subsidiary.

Concretely, Hilo offers a turnkey service for the management of the demand for electricity in peak periods adapted to the needs of the Distributor, as established on an annual basis for each of the winter periods. To do this, Hilo must amass a sufficient number of participants and maintain activity among them in order to meet the power needs in peak periods.

The role of the Distributor is to define its needs for reduced MW during peak morning and evening periods and to send notice to Hilo for GDP events. It must also follow strictly the results obtained in terms of reduction of power. To do this, it demands that Hilo demonstrate its ability to meet its requirements by the annual submission of various documents, particularly:

- a 5-year marketing plan and its updates ;
- monitoring of eligibility requirements for participants ;
- the commitment in kW and number of participants for the next year ;
- the calculation of the power reduction achieved.

2. DESCRIPTION OF HILO'S OFFER

2.1 Service operation mode

In the winter period -- 1 December to 31 March -- the distributor will issue the notices of GDP to Hilo, which will remotely control some loads for participating clients to reduce the demand for specific time slots by managing, as necessary, periods of preheating and of recovery. The reductions that will be provided by Hilo must correspond to its commitment issued no later than 1 October preceding the period winter.

2.2 Technologies offered

The Distributor expects that the aggregator Hilo will generate the reductions of power, presented in Table 3.2 of HQD-2, Document 3, from residential clients. The technological choices and the rate of deployment of these are Hilo's responsibility , power reductions being potentially obtained by controlling space or air-heating loads or loads from any other source.

That said, and as mentioned in Table 3.3 of HQD-2, Document 3 (B-0009), Hilo will prioritize in a first stage the remote control of smart thermostats of participating residential customers to reduce the residential peak demand for electricity (space-heating load), which is the use currently having the greatest potential for reduction of power. The control of water-heating loads will eventually be added.

The Distributor understands that the aggregator plans, in a second phase, to expand its offer with other products and services, including in the areas of electric mobility smart storage and independent solar production. The Distributor notes that the gradual introduction of new technological offers by Hilo will make it possible to achieve the increasing power-reduction targets foreseen in the Plan.

2.3 Annual breakdown of the number of participants

Hilo is responsible for setting up the means necessary to achieve the targets agreed with the Distributor, by seeking the number of clients required and ensuring a reduction per participant sufficient to achieve power-reduction targets during the hourly periods specified by the Distributor.

For Winter 2019-2020, the Distributor understands that Hilo wanted to recruit 1,000 test clients[2] , a target that has been reached as of today [3] .

[2] https: // www.lapresse.ca/maison/immobilier/2019 08 / 11 / 01-5248918 -hilo-dhydro-quebec-un-programme-pour- optimize-sa-consumption-denergie.php

[3] https : // www.hiloenergie.com/fr-ca/

2.4 Reduction assumptions

Hilo foresees an average peak reduction of 2 kW per participating customer, which is validated by the Distributor's pilot projects, and a penetration at the horizon of the Plan of nearly 15% of the target market, or 6% of all residential customers in 2029. The Distributor considers these assumptions realistic and attainable according to the rates of penetration observed in other jurisdictions for smart home offers, including control of the heating load.

2.5 Form and amount of compensation provided

Hilo is responsible for implementing the administrative, financial and commercial resources and techniques of its choice to meet the Distributor's requirements, including a compensation for participating customers in the form and the value it deems necessary for the achievement power-reduction targets agreed with the Distributor. The Distributor is not involved in determining compensation for participating customers.

3. POSITION OF HILO RELATIVE TO OTHER MEANS OF RESIDENTIAL DEMAND

3.1 Conditions of access to the products and services offered by Hilo to residential customers

To be eligible, residential customers of the aggregator must meet the following conditions required by the Distributor :

- must have a service contract with the Distributor ;
- must have a smart meter ;
- must be part of the residential clientele of the Distributor subject to Rate D;
- must have signed the consent form confirming their agreement to install the equipment required by the service and to participate events of demand management.

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Ineligible residential customers include :

- customers of municipal networks and of the regional cooperative St. John Baptiste de Rouville ;

- customers of autonomous networks ;
- participants in tariffs targeting GDP.

3.2 Distinguishing the potential impacts of Hilo and dynamic pricing

As mentioned in section 3.1, specific terms of eligibility are provided to ensure that the financial support paid by Hilo is not used to compensate the kW reduced by customers using dynamic pricing. A Hilo customer will thus not be able to subscribe to dynamic pricing and, vice versa, a customer who subscribes to dynamic pricing may not participate in Hilo's offers.

Even though the two measures are aimed at the residential market, the Distributor is of the opinion that they are nonetheless aimed at customers of different profiles. On the one hand, the supply of the aggregator Hilo aims to control loads and includes the supply of products and services having in particular the objective of reducing energy consumption. On the other, the dynamic pricing options are more aimed at changing behaviors of customers who will join in consideration of a reduction in their bill, which maintains the control of their loads.

For all of these reasons, the Distributor considers that these two ways of management of the power are sufficiently distinct to that the risk of overlap -- in regards to their impact on capacity -- is considered minimal. There is therefore no need to develop a methodology to differentiate the impacts of these two means of power management offered to residential customers.

4. RESULTS AND CONCLUSIONS OF THE “RESIDENTIAL INTERRUTIBLE LOADS” PROJECTS

Table 1 summarizes the results and conclusions of the "residential interruptible loads” projects.

TABLE 1:

STATUS OF DRAFT CHarges INTERRUPTIBLE RESIDENTIAL

Projects	Status	Results and conclusions
Pilot project Interruptible central heating loads	Completed	Inconclusive results
Interruptible baseboard heating load demonstration project	Completed	As mentioned in the 2018-2026 Supply Plan 2018 Progress Report [4], the analysis of the results showed an average reduction of 2 kW during peak periods when all thermostats were controlled and an average reduction of 1 kW when only four thermostats were controlled.
Deployment of technological tools	Completed	The Distributor tested the control of electric baseboards by using thermostats communicating with 75 customers in the winter of 2018-2019. The results confirmed the average reduction of 2 kW during peak periods. The technological solution has proven to be functional.
Pilot project Behavioral measurements with non-electric auxiliary heating	Completed	As mentioned in the 2018 Progress Report of the 2017-2026 Supply Plan [5], the information collected within the framework of this project contributed to improving the Distributor's knowledge in the field of power demand management for the residential sector.
Interruptible dual energy pilot project	Completed	The Distributor considers that the problem of the erosion of its residential dual-energy fleet is caused by different contextual elements (for example, fuel oil prices, regulations aimed at reducing GHG emissions, aging fleet, other technological tools available, evolution of customer needs) that a remote-controlled dual energy supply cannot solve on its own.Additionally, given that the heat pump does not work in very cold weather, such an offer would only concern at most 45% of DT rate customers, i.e. those with a heating system other than a heat pump for the electric portion. Thus, considering the inevitable decline of the oil dual energy fleet, the Distributor opted instead to develop alternative offers (residential GDP program through the Hilo subsidiary and dynamic pricing) in order to meet both its demand management needs and the trend observed in the supply of technological products . The Distributor will be able to measure the impacts of these two offers in

		the future. For the immediate future, it is continuing the communication activities presented in file R-4057-2018[6] , i.e. the transmission to the vast majority (when possible or relevant) of DT customers of personalized reports detailing actual and potentials savings and offering advice to maximize them.
Technological and commercial demonstration project of gas bi-energy with heat pump for new construction	Completed	The project consisted of a group of 27 new single-family residences with LEED certification, a segment more conducive to adopting the type of product targeted, i.e. a dual-energy system combining a heat pump and a gas back-up. The project made it possible to measure a peak reduction among participants. However, the additional costs required for these installations are relatively large compared to the potential gains. In addition, during the 2.5-year duration of the project, the energy context has greatly evolved and new solutions are available with a better cost / benefit ratio (for example, domotics (smart-home technologies)) in addition to other benefits for customers while offering significant reduction potential to the Distributor. On the basis of these conclusions, the Distributor has chosen not to develop such an offer.

[4] http://www.regie-energie.qc.ca/audiences/Suivis/SuiviD-2017-140_PlanAppro2017- 2026 / HQD_SuiviPlanAppro2017-2026_1nov2018.pdf

[5] Ibid.

[6] HQD-10, document 1, p. 14.

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N° 1 DE L'AQPER

Réponse :

Voir la réponse à la question 12.2.

HILO

13. **Référence : (i) Pièce B-0017, page 7, lignes 11 à 21**

(ii) Pièce B-0009, page 18, Tableau 3.2

Préambule :

Référence (i) :

« *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.*

Le Distributeur comprend que l'agrégateur prévoit, dans une deuxième phase, élargir son offre avec d'autres produits et services, notamment dans les secteurs de la mobilité électrique, du stockage intelligent et de l'autoproduction solaire.

Le Distributeur note que l'introduction graduelle de nouvelles offres technologiques par Hilo lui permettra d'atteindre les cibles de réduction de puissance croissantes prévues au Plan. » (Nos soulignés)

Requests :

13.1 In reference (i), The Distributor mentions the existence of a second phase in power supply from Hydro-Québec's subsidiary, Hilo. Please indicate which portion of the 621 MW of power reported in reference (ii) is related to the second phase.

Answer :
The Distributor points out that Hilo must, in the way that it chooses and in accordance with the contract, meet the annual reduction targets agreed with the Distributor. The choice of technologies and the pace of deployment of measures to achieve these targets are entirely up to Hilo. However, according to the forecasts made at the time of the development of the 2020-2029 Supply Plan, 40% of the 621 MW **forecast within** ***the 2029 horizon could come from the technologies targeted for a second phase. This share could change depending on the market reception of Hilo's offerings and the evolution of technologies.***

14. **Reference : (i) Exhibit B-0024, page 37, lines 1 to 7**

(ii) Exhibit B-0009, page 18, Table 3.2

(iii) Exhibit B-0024, page 38, lines 1 to 10

Préambule :

Référence (i) :

« ***Demandes*** *:*

10.1 Veuillez confirmer que, par rapport à l'état d'avancement de 2018 dont le bilan en puissance est présenté en référence (ii), le report de deux ans des besoins en approvisionnement de long terme soit de 2023-2024 à 2025-2026 selon le présent Plan, s'expliquent essentiellement par l'effacement dû à l'introduction du programme Hilo et de l'effacement découlant des moyens additionnels potentiels.

Réponse :

Le Distributeur confirme que l'ajout de nouveaux moyens de gestion de la demande de puissance, avec notamment Hilo et les moyens additionnels potentiels, permet de compenser la hausse des besoins en puissance et de reporter de deux ans, par rapport à l'état d'avancement 2018, le besoin pour de nouveaux approvisionnements de long terme.

De ce fait, le retrait de ces moyens au bilan aurait pour conséquence le devancement du besoin pour un nouvel approvisionnement en puissance. »

Référence (iii) :

« ***Demandes*** *:*

10.1.2 Veuillez élaborer sur le rôle critique de ces deux initiatives et de leur succès dans l'évaluation du plan d'approvisionnement 2020-2029.

Réponse :

Les nouveaux moyens de GDP intégrés au bilan de puissance jouent effectivement un rôle important dans l'atteinte de l'équilibre offre-demande en puissance.

> ***Le Distributeur priorise la réduction des besoins avant l'acquisition de nouveaux approvisionnements possiblement couteux et requérant des engagements à long terme. Pour ce faire, le Distributeur mise sur l'offre d'Hilo, avec le déploiement d'offres technologiques adaptées pour répondre aux besoins en pointe, ainsi que sur des modifications aux options d'électricité interruptible et au programme GDP Affaires dans le but d'accroître la participation de sa clientèle à ces différentes mesures.*** »
> (Nos soulignés)

Demandes :

14.1 Veuillez justifier et soutenir, à l'aide d'analyses économiques détaillées, que l'impact tarifaire est réduit par la substitution d'un appel d'offres de long terme par des moyens de gestion de la demande de puissance provenant de Hilo.

Réponse :

Voir la réponse à la question 10.19 de la demande de renseignements nº 1 de la Régie à la pièce HQD-5, document 1 (B-0024).

14.2 Veuillez indiquer quelle est la valeur moyenne (kW-année) de la puissance offerte au Distributeur par Hilo pour chacune des années du plan (période de 2019-2020 à 2029-2020) tel que répertorié à la référence (ii).

Réponse :

Voir la réponse à la question 10.19 de la demande de renseignements nº 1 de la Régie à la pièce HQD-5, document 1 (B-0024).

Voir également la réponse à la question 4.1 de la demande renseignements nº 1 de l'AQCIE-CIFQ à la pièce HQD-5, document 3, de même que la réponse à la question 4.1 du ROEÉ à la pièce HQD-5, document 8.

14.3 Veuillez définir « nouveaux approvisionnements » à la référence (iii). Veuillez indiquer quel type de ressources serait envisagé par le Distributeur pour la fourniture de puissance provenant d'un processus d'appel d'offres de long terme.

Réponse :

À la référence (iii), par « nouveaux approvisionnements », le Distributeur veut désigner des approvisionnements qui ne sont pas déjà inscrits à son bilan de puissance et qui sont au-delà des achats prévus sur les marchés de court terme.

Voir également la réponse à la question 9.2.3.

14.4 Please indicate whether the Distributor believes that the supply plan's power reduction measures have a lower average price than new supplies from a tendering process. Please provide price assumptions ($/kW-year) by type of resources or programs retained by the Distributor in its power aggregate (see reference (ii)).

Answer :

With respect to the cost of the measurements, see the answer to question 3.3 of CQ3E in HQD-5, Document 5.

As for the cost of new supplies, the assumption used for analysis is the avoided cost of long-term supply, which is $115/kW.

15. **Référence : (i) Pièce B-0024, page 47, lignes 5 à 11**

Préambule :

« *10.18 Veuillez préciser la période qui sera couverte par le contrat de la référence (ix), entre Hilo et le Distributeur, en précisant le nombre d'années pour lesquelles Hilo sera tenu de respecter des cibles précises de réduction de puissance.*

Réponse :

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.

Le Distributeur déposera d'ailleurs une mise à jour de ces cibles dans le cadre des prochains états d'avancement du Plan. » (Nos soulignés)

Demandes :

15.1 Veuillez fournir le contrat conclu entre Hilo et le Distributeur.

Réponse :

Voir l'annexe A de la pièce HQD-5, document 3.

16. **Référence : (i) Pièce B-0024, page 48 et 49, lignes 1 à 34 et lignes 1 à 3**

Préambule :

« *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 émergences. » (Nos soulignés)

Requests :

16.1 Should we understand from the Distributor's comments (reference (i)) that in a context of annual cost of service pricing, the significant costs of developing the Hilo service would create an upward pressure on rates ?

Answer :

At the outset, the Distributor mentions that it does not pay development costs directly, since these are borne by Hilo.

The impact of Hilo's service on the Distributor's required revenues depends on two factors, the effects of which are counteracting:

- **on the one hand, the costs associated with the service, similar to those of measures such as the DM for Business program or interruptible electricity options;**
- **on the other hand, reducing supply costs (short- and long-term capacity costs) and pressure on the transport and distribution networks.**

Like any new product or program, a break-in period is required. In the short term, there is some uncertainty about the customer response to Hilo's offer and the actual impact on peak reduction. In the comments cited, the Distributor simply wished to emphasize that the rate cap period that has just begun allows its customers to be protected from the vagaries associated with the introduction of this new service.

16.2 Le Distributeur mentionne que les services de Hilo sont offerts à un prix représentatif du coût évité de long terme (115 $/kW-an pour l'hiver 2025-2026[6]). Veuillez indiquer si le prix effectif demandé pour les services de Hilo est inférieur ou supérieur au coût évité de long terme.

Réponse :

Voir la réponse à la question 4.1 de la demande de renseignements nº 1 de l'AQCIE-CIFQ à la pièce HQD-5, document 3.

[6] Pièce B-0032, page 6, ligne18.

16.3 Please indicate whether the distributed energy resources mentioned by the Distributor in the 4th paragraph of reference (i) represent post-heritage supply. Please justify the answer.

Answer :

Decentralized energy resources downstream of the customer meters could expand Hilo's offer but would not change the nature of Hilo's service to the Distributor under the current contract. They would therefore not constitute supply within the meaning of Article 74.1 of the Act.

16.4 Au dernier paragraphe de la référence (i), il est mentionné qu'il existe d'autres joueurs dans ce marché émergent. Veuillez indiquer si le Distributeur a contacté ces autres joueurs afin d'avoir une offre de service pouvant répondre aux besoins du Distributeur?

Réponse :

Voir la réponse à la question 2.5 de la demande de renseignements nº 1 de l'AQCIE-CIFQ à la pièce HQD-5, document 3.

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N°1 DU CQ3E

Réponse :

Les économies d'énergie de 5.6 TWh inscrites au Plan d'approvisionnement à titre de mesures d'efficacité énergétique comprennent non seulement les mesures prévues par le Distributeur mais également celles d'autres contributeurs pour lesquelles le Distributeur ne dispose pas des budgets.

Nonobstant ce qui précède, de l'avis du Distributeur, le ratio $/MWh demandé par l'intervenant ne constitue pas un indicateur pertinent compte tenu qu'il ne tient pas compte, d'une part, de la durée de vie des mesures et, d'autre part, comme exposé en réponse à la question 4.4 (lignes 20 et suivantes) de la Régie à la pièce HQD-2, document 1.3 (C-HQD-0037) du dossier R-4043-2018, de l'impact énergétique sur plus d'une année des sommes investies au cours d'une année donnée.

2.4 Please provide the expected impact on power demand of the energy efficiency measures that make up the 5.6 TWh of energy efficiency accumulated in the Supply Plan.

Answer :

The Distributor points out that it is difficult to quantify the potential impact of energy efficiency interventions because it is implicit in the power model. However, the Distributor can approximate it using a generic feature that estimates the impact of the 5.6 TWh of energy efficiency provided in the Supply Plan on power demand at approximately 1,400 MW.

Question 3 :

Reference :

B-0005, p. 11, lines 1-5.

Preamble :

«The capacity balance shows the state of supply for the expected annual winter peak, the time at which electricity consumption is likely to be highest. Figure 6 shows that the capacity balance is ensured until the winter of 2024-2025 through demand management measures and short-term power purchases. »

Questions :

3.1 Regarding the growth in power demand for the 2020-2029 period: Please provide information on the proportion of total demand management potential represented by the estimated contribution of Demand Management for the 2020-2029 period.

Answer :

The Distributor has filed various information on the potential for demand management and the measures foreseen over the Plan period.

On the one hand, the capacity balance shown in Table 3.2 of HQD-2, Document 3 (B-0009), presents the contribution of the DM measures that are in place or foreseen within the framework of the Plan.

On the other hand, the Distributor presented the technical and economic potential grouped in Table 7.9 of the same document. This potential, grouped for all sectors and adjusted for existing DM programs, estimates the potential for additional DM. It is estimated to reach a maximum of 1,054 MW in 2020, 372 MW in 2025 and could reach 1,443 MW by 2030.

The Distributor adds that it is not appropraite to calculate the proportion as requested, as the reductions of the various measures cannot be added. The information to which the Distributor refers above nevertheless makes it possible to appreciate the Distributor's efforts in the field of demand management.

3.2 Please provide the estimated contribution of Demand Management by sector (residential, commercial, institutional and industrial)).

Answer :

The Distributor refers the stakeholder to the capacity balance presented in Table 3.2 of HQD-2, Document 3 (B-0009) and specifies the following allocation of demand management by sector:

- **Residential customers: Hilo and dynamic pricing;**
- **Commercial and institutional customers: PDM Business Program, Block Chain Interruption and dynamic pricing;**
- **Industrial customers: Interruptible electricity and potential additional means.**

The Distributor is not in a position at this time to further clarify the distribution of dynamic pricing between residential and commercial customers. See the answer to question 47.1 in HQD-14, Document 1.1 (B-0062) of the R-4057-2018 file.

3.3 Please provide information on the estimated cost of power demand reduction measures that are the estimated contribution of Power Demand Management.

Answer :

Each of the means of power management has its own modalities. Table R-3.3 shows the requested information.

TABLEAU R-3.3 :

COÛT ESTIMÉ DES MESURES DE GESTION DE LA DEMANDE DE PUISSANCE

Gestion de la demande de puissance	Coût ($/kW)
Électricité interruptible[1]	13
Interventions en gestion de la puissance	
Chaînes de blocs	0
Tarification dynamique	50
GDP Affaires	70
Hilo	- [2]

[1] **Le coût présenté pour l'OÉI représente le crédit fixe. Il exclut donc le coût associé au crédit variable (voir l'article 6.20 des Tarifs).**

[2] **Donnée confidentielle (voir l'annexe A de la pièce HQD-5, document 3).**

LOOSE TRANSLATION

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N° 1 DU RNCREQ

E. Hilo

38. Reference : B-0009, HQD-2, doc. 3, p. 18, Tableau 3.2

Preamble :

The "Hilo" line foresees reductions in power requirements increasing from 2 MW in 2019-20 to 621 MW in 2028-29.

Questions :

38.1 Is Hilo the source of these forecasts? If applicable, please provide a document produced by or on Hilo's behalf that indicates its forecast of power reductions during the Plan period.

38.1.1 If not, please explain in detail how these forecasts of Hilo's reductions in power requirements were set.

Answer :

See answer to question 2.9 of the FCEI in HQD-5, document 6.

38.2 Please provide frame ranges for this forecast, similar to those presented in Figure 1.8 of B-0007 (HQD-2, doc. 2).

Answer :

The Distributor has not produced sensitivity analyses on the hypotheses underlying the reduction targets for Hilo.

38.3 Veuillez préciser les réductions qui font l'objet d'un engagement ferme de la part de Hilo, en date d'aujourd'hui.

Answer :

Hilo's contributions to the procurement plan are targets (forecasts). Power reduction commitments are communicated to the Distributor, by Hilo, once a year, before the winter period, depending on the number of participants registered for Hilo's services.

38.4 Veuillez ventiler la puissance qui sera fournie par Hilo chaque année entre le contrôle des charges de chauffage de l'espace et celui des charges de chauffage de l'eau.

Answer :

As mentioned in response to question 10.6 of the Régie's Enquiry No. 1 in Exhibit HQD-5, Document 1 (B-0024), Hilo is responsible for providing the annual erasures agreed upon with the Distributor. Hilo's targeted uses depend on context, customer preferences and available technologies. Thus, Hilo's offer could evolve over the market-based supply plan horizon.

39. Reference : B-0024, HQD-5, doc. 1, p. 47 (R-10.18 et 19)

Quotation :

« R 10.18.1 : The amount and terms of remuneration are provided for the 10-year contract period.
R 10.19 : The Distributor believes that the price paid for such a service must remain confidential, as it is commercially sensitive, particularly in the context of this emerging market of few players.
R-10.20 : A penalty will be provided in the contract if the power reduction for which Hilo has committed is not achieved. »

Questions :

39.1 Please specify whether the contract between Hilo and the Distributor (the "Contract") has already been signed and, if so, the date of signing. If not, please specify the date for its signature.

Answer :

See the answer to question 2.1 of Enquiry nº 1 of the AQCIE-CIFQ in HQD-5, document 3.

39.2 Please specify the effective date and termination date of the Contract..

Answer :

The effective date coincides with the signing date of October 21, 2019. The contract is for a period of 10 years, from the date of its signing.

39.3 Please specify whether the Distributor intends to include The Contract payments in its required revenues from its 2025-2026 rate file.

Answer :

The amounts paid to Hilo are accounted for in the same way as are the financial support paid to clients through energy efficiency programs. As noted in response to question 10.19 of the Régie's Enquiry No. 1 in HQD-5, Document 1 (B-0024), these costs will be incorporated into the revenues required at the time of rebasing in 2025.

39.4 Please specify whether the compensation provided under the Contract is directly proportional to the power reduction, or whether it also includes a fixed component.

39.4.1 If there is a fixed component, please provide a table showing its evolution over the 10-year contract.

Answer :

The amounts paid to Hilo are proportional to the power reduction achieved and the number of participants registered for the service. There is no fixed component to the contract compensation for Hilo's services.

39.5 Please explain why the price paid for this service is "commercially sensitive" as the Distributor grants an OTC Contract to Hilo that is not subject to any competitive process.

Answer :

In response to question 9.1.2 of the Régie's enquiry No. 1 in HQD-5, Document 1 (B-0024), the Distributor mentions that the ability to do business with potential

other aggregators for the acquisition of power assets from residential customers should not be excluded. In section 3 of B-0027, the Distributor notes the nature of the harm it could incur if the price paid for Hilo's services is disclosed.

39.6 Please provide the RNCREQ with a non-disclosure agreement to allow its attorney and expert to see the unredacted version of response 10.19.

Answer :

The non-disclosure agreement will be provided to the intervener's attorney, as per usual procedure.

Quotation :
« R-10.18 : 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. »

Requests :

39.7 Does the contract between the Distributor and Hilo provide predetermined power erasure targets for each of the ten years of the contract, or are the targets set only on an annual basis?

Answer :

See the answer to question 38.3.

39.8 Please specify the amount of penalties in the contract if Hilo does not meet its firm power reduction commitments, and on what basis this amount has been established.

Answer :

Penalties are provided in the contract if annual power reduction commitments are not met. The Distributor is working to assess, during the current break-in period of Hilo's activities, the basis of calculation and the cost of these penalties.

39.9 Are there penalties under the contract if the firm commitments confirmed annually do not match the amounts set out in the Plan? Please specify and elaborate.

Answer :

There are no penalties for discrepancies between annual commitments and these targets. However, if Hilo does not meet the annual power reduction commitment made with the Distributor, it will have to provide the documentation and produce an action plan to ensure that future targets are met. In addition, there is a penalty in the contract for any discrepancy between the annual commitment and the power reduction achieved.

If the action plan cannot reassure the Distributor that future targets will be met, the Distributor will be able to adjust Hilo's contribution to the contract downwards.

It is also important to note that Hilo will not be compensated for power reductions that exceed the Plan's targets..

39.9.1 Does the amount of penalties take into account the cost of short-term purchases that would be required in the event that the expected reductions do not occur?

Answer :

See the answer to question 39.8.

39.10 Will the Distributor have the right to terminate the contract if it is not satisfied with Hilo's performance? If not, please specify the conditions applicable to the termination of the contract.

Answer :

If Hilo fails to comply with its obligations under the contract, the Distributor reserves the right to terminate it.

39.11 Please provide a copy of the contract between the Distributor and Hilo.

Answer :

See Appendix A of HQD-5, document 3.

40. Reference : B-0024, HQD-5, doc. 1, p. 29 (R 9.1.1), et p. 40 (R 10.6)

Quotation 1 :

"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. »

Quotation 2 :

"Hilo will deliver the annual power reduction targets agreed upon with the Distributor."

Requests :

40.1 Do customers participating in the PDM Business program commit to delivering annual or otherwise agreed-upon power reductions with the Distributor?

Answer :

DM Business participants have no commitment to power reduction.

However, the Distributor reserves the right to exclude from the program any participant after two non-participations in a DM event. In addition, the Distributor recalls that the remuneration of participants is proportional to the average reduction in real power during DM events.

40.2 Do PDM Business program aggregators commit to delivering annually or otherwise agreed-upon power reductions with the Distributor?

Answer :

Aggregators are participants in the program like any other client and are subject to the same terms and conditions. Thus, they have no commitment to power reduction.

See also the answer to question 40.1.

40.3 Is the relationship between the Distributor and Hilo essentially the same as that between the Distributor and the aggregators under the GDP Business Program? If it is not, please specify how it differs.

Answer :

Such a comparison is difficult since the target market, the provision of services offered and the contractual relationship with the Distributor are completely different.

The aggregators participating in the GDP Business program have no commitment to reduce power, do not necessarily implement measures, do not have access to meters or customer data, and do not enter into any contracts with the Distributor.

41. Reference : B-0017, HQD-4, doc. 1, p. 6

Quotation :

«The Distributor's role is to define its needs for erased MW during the morning and evening peak periods and to issue Hilo notices for PDM events. It must also rigorously monitor the results obtained in terms of power reductions. To do so, the Distributor asks Hilo to demonstrate its ability to meet its requirements by submitting various documents annually, including:

- a 5-year marketing plan and updates;
- a report of participants' eligibility requirements;
- the commitment in kW and in number of participants for the coming year;
- the calculation of the power reduction achieved. »

Request :

41.1 Has Hilo ever submitted the documents mentioned in the citation to demonstrate its ability to meet the Distributor's requirements for the first year? If necessary, please produce a copy of the submitted documents. If not, please explain why, and specify when they will be submitted.

Answer :

These documents are part of the management of the contract between the Distributor and Hilo. In the Distributor's view, obtaining this level of information is unnecessary for the exercise of reviewing the supply plan.

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42. References : (i) B-0024, HQD-5, doc. 1, p. 29 (R 9.1.1), et p. 40 (R 10.6)
(II) B-0017, HQD-4, doc. 1, p. 6

Quotation (i) :

«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.»

Quotation (ii) :

«To achieve this goal, the Distributor has carried out several pilot and demonstration projects in the past that have confirmed the potential of PDM for the residential market and the significant marketing efforts required to operate it. Taking into account the limits of its regulated scope of activities and the effort required for mass deployment, it chose to mandate Hilo, an unregulated, wholly owned subsidiary of Hydro-Québec, active in the Smart House market to develop the residential PDM market in Quebec and contribute to the balance of its power balance. Comprised of experienced specialists in new product development and technology companies, Hilo has the commercial and technological expertise to deploy a large-scale installation and programming service for home automation products to customers. In addition, the subsidiary was able to benefit from atransfer of knowledge acquired by the Distributor, notably through pilot projects and work carried out on behalf of the Distributor by researchers at the Hydro-Québec Research Institute (IREQ). The use of this affiliate, dedicated to the deployment of this new medium, allows a coordinated development of energy services perfectly adapted to the needs of the Distributor in order to ensure the reliability of the network as well as the security and confidentiality of the data. The Distributor is confident that all of these elements will contribute to the success of this power management method and justifies the use of this subsidiary. »

Questions :

42.1 Please specify the extent to which the Distributor's confidence in Hilo's achievement of the annual targets is attributable to:

- Hilo's past successes,
- the technologies it uses,
- its managers,
- the fact that it is a subsidiary of Hydro-Québec.

Answer :

The Distributor's confidence is due to a combination of factors, including those listed above. As mentioned in response to question 10.6 of the Régie's enquiry No. 1 in HQD-5, Document 1 (B-0024), the preliminary results for the winter of 2019-2020 are very encouraging and reinforce the Distributor's level of confidence in meeting the procurement plan objectives. In addition, during the break-in period, technological, commercial and operational adjustments may be made to ensure that the objectives are met.

.

42.2 Did Hilo compensate the Distributor for the transfer of its acquired knowledge?

42.2.1 If not, please explain how the transfer to an unregulated, unpaid third party of knowledge acquired by the Distributor on behalf of regulated consumers is consistent with the principles of the economic regulation of natural monopolies.?

Answer :

See the answers to questions 2.6, 2.7 and 2.8 of enquiry nº 1 of the AQCIE-CIFQ in HQD-5, document 3.

43. Reference : B-0024, HQD-5, doc. 1, p. 41 (R10.9)

Quotation :

« Request 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 the penetration rates observed in other jurisdictions for smart home offers, including heating load control*" (reference (vi)). Please provide appropriate references and comment.»

Preamble :

In its answer, the Distributor did not provide the requested references.

Request :

43.1 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 the penetration rates observed in other jurisdictions for smart home offers, including heating load control*".

Answer :

See the answer to question 2.7 of the FCEI in HQD-5, document 6.

44. Reference : B-0024, HQD-5, doc. 1, p. 41 (Table R-10.10)

Preamble :

The table shows the anticipated number of participants for each dynamic pricing option for each year during the Plan period.

Request :

44.1 Please present a table similar to Table R-10.10 for Hilo's programs.

Answer :

See section 2.3 of the evidence supplement in HQD-4, document 1 (B-0017).

45. References : (i) B-0009, HQD-2, doc. 3, p. 18 (Table 3.2), (ii) B-0024, HQD-5, doc. 1, p. 49 (R-10.21)

Quotation (B-0024) :

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

Requests :

45.1 Please specify whether water heaters that meet the anti-legionella criteria will be marketed by Hilo, other private companies, or both.

Answer :

As mentioned in Section 2.2 of the evidence supplement in HQD-4, Document 1 (B-0017) and in response to question 10.21 of the Régie's enquiry No. 1 in HQD-5, Document 1 (B-0024), Hilo is responsible for the technological choices and the pace of deployment of measures to meet the erasure targets agreed upon with the Distributor.

In addition, Hilo is currently developing the supply for water heater control that meets the anti-legionella criteria and has not yet defined the business model it intends to implement for this technology, nor has it determined the targeted segments and parameters of the water heaters that will be promoted under this offer.

45.2 Will the marketing of the anti-legionella water heater only involve the replacement of regular water heaters at the end of their useful life, or also the replacement of ordinary water heaters that are in good condition?

Answer :

See the answer to question 45.1.

45.3 Please provide the Distributor's (or Hilo's) estimate of the evolution of the penetration of the anti-legionella water heater during the Plan period.

Answer :

See the answer to question 45.1.

45.4 Please confirm that Hilo's measures to control water heating loads apply only to anti-legionella water heaters.

Answer :

As mentioned in the "Hilo" section of Table 3.3 of HQD-2, Document 3 (B-0009), water heating loads may eventually be added, depending on the availability of a product that meets the anti-legionnella criterion.

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46. Reference : (i) B-0009, HQD-2, doc. 3, p. 18 (Table 3.2), (ii) B-0024, HQD-5, doc. 1, p. 50 (R-10.22)

Quotation (ref, (ii)):

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

Request :

46.1 Does the Citation answer mean that the Contract with Hilo is limited to the residential sector? If not, please describe in detail Hilo's mandate in relation to the commercial, institutional and industrial markets.

Answer :

The contract with Hilo currently only targets residential customers.

47. Reference : B-0024, HQD-5, doc. 1, p. 50 (R-10.24)

Quotation :

« 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, by providing the number of participants by type of clientele and by type of load, as highlighted in reference (v), as well as the erasure assumptions by participant and by type of load.

Answer :
See the answer to question 10.6. »

Pramble :
The answer to question 10.6 does not answer the Régie's request 10.24.

Request :

47.1 Please present, based on the assumptions used to produce the 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 to the forecast of demand reductions, by providing:

- the number of participants by type of clientele and by load type, and
- erasure assumptions by participant and load type.

Answer :

As mentioned in response to question 10.6 of the Régie's enquiry No. 1 in HQD-5, Document 1 (B-0024), the Distributor has not made any assumptions as to the contribution of residential heating of spaces and water.

The contract with Hilo does not include clauses regarding the specific contribution of customer segments or uses. Hilo is responsible for meeting the power reduction targets annually agreed upon with the Distributor and establishing the required contribution of the different uses or types of loads to achieve them.

Furthermore, as mentioned in response to question 10.22 of the Régie's same enquiry, no contribution is expected from commercial, institutional and industrial customers in this procurement plan.

48. Références : (i) Pièce B-0005, p. 12;, (ii) Pièce B-0009, p. 21;, (iii) Pièce B-0017, p. 5-6, (iv) et (v) Pièce B-0024, p. 29, réponses 9.1 et 9.1.1

Quotation :

(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 ».

(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.

(…)
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)

(iv) « 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.

Answer :
La compréhension de la Régie est exacte. »
(nous soulignons)

(v) « Demande :

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.

Answer :

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. »

Requests :

48.1 In reference(iv), The Distributor confirms that the OTC contract with Hilo is for the deployment of energy efficiency measures. In reference (i), it indicates that this new offer could reduce the power requirement by more than 600 MW by 2028. Please explain why this measure is not classified as a reduction in customer needs, in the demand part of the power balance sheet.

Answer :

See the answer to question 10.1.

48.2 What are the means of control put in place so that the Distributor can validate the reductions actually caused by Hilo during a PDM event?

Answer :

See the answer to question 3.2 of the enquiry n° 1 of the AQCIE-CIFQ in HQD-5, document 3.

48.3 In reference (iii), it is indicated on the one hand that the Distributor's needs are established on an annual basis for each winter period, and on the other hand that the Distributor issues notices to Hilo for PDM events. Please clarify whether Hilo is committed to systematically reducing power requirements during all winter periods, or only in response to one-time notices?

Answer :

Hilo is committed to reducing power for each winter period under contract. The committed power reduction is communicated to the Distributor before each winter period.

The power reduction occurs only after a notice was sent to Hilo by the Distributor prior to a DM event. It is therefore only effective during these events.

48.4 Who, from the Distributor or Hilo, will establish the parameters applicable to the goods and services marketed by Hilo? For example, who will determine the amounts of financial aid for the installation of technology tools, if any? Who will decide whether erasure during a peak period is voluntary or mandatory? Who will set the eligibility requirements for participants? Etc.

Answer :

All parameters applicable to Hilo's marketed goods and services are under his responsibility, subject to the eligibility requirements set out in Section 6 of the contract, filed in Appendix A of HQD-5, Document 3.

48.5 In reference (v), it is suggested that the contract with Hilo is not a contract to supply electricity required to meet the needs of Quebec markets that exceed heritage electricity. Please :

48.5.1 confirm that peak needs according to the Power Report (B-0009, Table 3.2) exceed heritage electricity supplies; and

Answer :

The Distributor confirms this.

48.5.2 explain how Hilo's power supply does not help meet the power needs of Quebec markets that exceed heritage electricity.

Answer :

DM ressources, including Hilo, make it possible to defer a tender for the acquisition of new long-term supplies by contributing to economize energy resources. However, within the meaning of the LRÉ, these are not "electricity supply contracts" required to meet the needs of Quebec markets that exceed heritage electricity.

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See also the answers to questions 2.1 to 2.5 of the FCEI in HQD-5, document 6.

48.6 In reference (v), it is indicated that Hilo's service consists of saving money in the use of energy resources currently available from the Distributor's customers. Please define what the Distributor means by "currently available energy resources" by opposing it to resources that would not be available.

48.6.1 Please specify the nature of the energy resources referred to by the Distributor. Are they physical resources (e.g., electric baseboards, water heaters) or does the Distributor consider the potential to reduce consumption as an energy resource? Please elaborate on your response.

Answer :

When the Distributor mentions "an economy in the use of energy resources currently available to customers", it effectively refers to a reduction in the use of physical equipment such as those for heating spaces or water.

48.7 Knowing that section 74.1 of the Loi sur la Régie de l'énergie (LRÉ), referred to by the Distributor at reference (v), equates the proponent of an energy efficiency project with an electricity supplier for the application of this section:

48.7.1 Please explain the Distributor's understanding of the relationship between energy efficiency (EE) and power demand management (PDM). Is PDM a sub-category of EE, or a separate concept? Is any PDM initiative necessarily an EE initiative or are some PDM initiatives EE initiatives while others are not?

Answer :

The Distributor is of the view that this question is very theoretical and without practical application in this case.

Indeed, the Distributor recalls that it is only for the purposes of the application of Article 74.1 of the LRÉ that the promoter of an energy efficiency project can be equated with an electricity supplier. The premise of such an equation is therefore the need to call for tenders to meet a demand.

This option under section 74.1 for the proponent of an energy efficiency project has no effect in restricting the implementation of any initiative, regardless of how it is qualified (energy efficiency measure, tariff offer), which aims to save money in the use of energy resources currently available from customers.

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48.7.2 How will the Distributor determine when or not it will use the tendering process referred to in Section 74.1 of the LRÉ to acquire marketing and operating services for energy efficiency products and services? On what criteria or circumstances does the Distributor base this choice?

Answer :

The Distributor uses the tendering process under Section 74.1 of the LRÉ when it has a demand to meet. In such a case, as provided in section 74.1, the proponent of an energy efficiency project may be considered an electricity supplier.

48.7.3 Before today, had the Distributor already proceeded without tender for the acquisition of marketing and operating services for energy efficiency products and services? In which cases?

Answer :

See the answer to question 67.2.

48.8 Please describe the proposed interaction between Hilo's measures and dynamic pricing options.

Answer :

The Distributor does not foresee any interaction between the Hilo offer and dynamic pricing options since these two offers are mutually exclusive.

RÉPONSES D'HYDRO-QUÉBEC DISTRIBUTION À LA DEMANDE DE RENSEIGNEMENTS N°1 DE L'UC

7 Hilo

Référence
(i) HQD-2, document 3, page 27

Préambule
(i)

Moyen	Contribution au bilan de puissance (MW) 2019-2020	Taux de réserve
Électricité interruptible	1 000	15 %
Programme GDP Affaires	280	17 %
Interruption chaînes de blocs	25	0 %
Tarification dynamique	9	17 %
GDP résidentielle	2	17 %
Moyens additionnels potentiels	0	15 à 17 %

7.1 Please indicate if the line identified in yellow in Table i) relates to Hilo's program reserve rate.

Answer :

The Distributor conf**irms this**.

7.2 Veuillez indiquer si le taux de réserve des programmes sous la responsabilité de Hilo sera constant tout au long de l'horizon du plan.

Réponse :

Voir la réponse à la question 13.2 de l'AHQ-ARQ à la pièce HQD-5, document 2.

7.3 Please explain why the reserve rate of an aggregator-controlled means of demand

management has the same reserve rate as a behavioral management method such as dynamic pricing .

Answer :

The reserve rate of a means of **management depends mainly on its terms and conditions. In the case of these two means, the terms and conditions are the same.**

The Distributor also states that, for dynamic pricing, reserve rate has been calculated only for the Flex rate, which is the only dynamic pricing option included in the power balance sheet at this time. This **option is a means of managing power demand, as do other means of PDM.**

8 Moyens additionnels de gestion de la demande

Références

(i) HQD-2, document 3, page 58

(ii) HQD-2, document 3, page 21

(iii) Règlement sur la teneur et la périodicité du plan d'approvisionnement

Préambule

(i)

Mesures	Segment	Coût unitaire moyen, actualisé ($2020/kW)	Coût évité actualisé ($2020/kW)	PTÉ regroupé (MW)
Gestion des températures de consigne des résidences par le Distributeur	Unifamilial – Plinthes	65,3	92,3	308,1
	Triplex – Plinthes	65,2	92,3	115,7
	Logements – Plinthes	63,2	92,3	500,1
	Unifamilial – Centraux	27,1	92,3	179,9
	Jumelé/Duplex – Centraux	32,1	92,3	8,4
	Triplex – Centraux	36,8	92,3	3,0
	Sous-total			*1 115,2*
Chauffe-eau – Contrôlé par le Distributeur	60 gal - usage modéré	44,2	71,8	4,7
	60 gal - usage élevé	31,1	71,8	2,6
	40 gal - usage modéré	51,6	71,8	7,9
	40 gal - usage élevé	34,0	71,8	15,2
			Sous-total	*30,4*
TOTAL				1 145,6

(ii)

(iii) 3° les objectifs que le titulaire vise ainsi que la stratégie qu'il prévoit mettre en œuvre, au cours des 3 prochaines années dans le cas des distributeurs d'électricité et au cours de la prochaine année dans le cas des distributeurs de gaz naturel, concernant les approvisionnements additionnels requis tels qu'identifiés au sous-paragraphe c du paragraphe 2°, et les caractéristiques des contrats qu'il entend conclure, en définissant entre autres :

a) les différents produits, outils ou mesures envisagés ;
b) les risques découlant des choix des sources d'approvisionnement ;
c) les mesures qu'il entend prendre pour atténuer l'impact de ces risques ;
d) le cas échéant, les mesures qu'il entend prendre pour disposer d'une capacité de transport adéquate ;

8.1 Please specify whether the planned erasure of 621 MW by 2028-2029 relates exclusively to the measures identified in the TEP that appears at point i) and which total 1,145.6 MW. If not, please specify the TEP of other measures that will contribute to the erasure of 621 MW.

Answer :

The Distributor confirms that the planned reductin for Hilo of 621 MW by 2028-2029 is not exclusively made up of the measures identified in the TEP and which appear in table of reference i. See section 2.2 of Exhibit HQD-4 Document 1 (B-0017) to lines 17 to 19 for other measures **that will contribute to this reduction.**

8.2 Veuillez déposer, s'il est maintenant disponible, le contrat de gré à gré entre Hilo et le Distributeur conformément aux exigences du Règlement sur la teneur et la périodicité du plan d'approvisionnement qui apparaissent en iii).

Réponse :

Le Distributeur n'est pas tenu de déposer le contrat en vertu du Règlement mentionné dans la question. Néanmoins, voir l'annexe A de la pièce HQD-5, document 3 pour prendre connaissance du contrat.

8.3 Dans l'éventualité où le contrat de gré à gré entre Hilo et le Distributeur n'était pas encore disponible, veuillez fournir les caractéristiques du contrat qu'il entend conclure, les différents produits, outils ou mesures envisagés, les risques découlant du contrat et les mesures qu'il entend prendre pour atténuer ces risques.

Réponse :

1 **Sans objet.**

9 Mesures comportementales

Références

(i) HQD-2, document 3, page 54

(ii) HQD-2, document 3, page 18

(iii) Rapport sur le potentiel technico-économique de gestion de la demande de puissance – Réseau intégré (1er novembre 2012), http://www.regie-energie.qc.ca/audiences/Suivis/SuiviD-2011-162_PlanAppro_2011-2020/HQD_RapportPTE_01nov2012.pdf , page 6.

(iv) Ibidem, page 9.

Préambule

(i) Contrairement à l'évaluation du PTÉ réalisé en 2012, les mesures comportementales ont été exclues de l'évaluation étant donné le déploiement de la tarification dynamique par le Distributeur.

(ii) Le Distributeur prévoit pour 2028-2029 un effacement de 86 MW grâce à la tarification dynamique

(iii) De plus, les impacts des mesures de nature comportementale que pourraient adopter les consommateurs suite à des activités de sensibilisation ou à des consignes spécifiques du Distributeur en période de pointe hivernale ont été évalués.

13.2 Does the Distributor confirm that the strategy of retaining dual-energy customers, whose costs were borne by customers at rate D, has not been able to contain or slow down the crumbling of the dual-energy fleet?

Answer :

The Distributor cannot confirm or deny the intervener's assertion. Indeed, as mentioned in response to question 13.1, other elements have evolved since the beginning of the implementation of the retention strategy of the dual-energy clients approved by the Board. Therefore, it is not possible to determine what the crumbling of the dual energy fleet would have been without the measures put in place by the Distributor since 2017.

14 Differentiated compensation for reductions

Reference

(i) HQD-5, document 1, page 44

Preamble

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

Answer :

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

14.1 Please further justify the $0.05/kWh premium for reductions that a customer participating in Hilo's offer receives compared to compensation for reductions in the winter credit option at rate D .

Answer :

As mentioned in the answer to question 12.1 of the Ré**gie**'s request for information No. 1 in Exhibit HQD-5, Document 1 (B-0024), the decisions relating to the remuneration of participants, as well as the form or value of the latter, is the responsibility of Hilo and not that of the Distributor.

Therefore, the latter is not in a position to justify the premium received by the two clients participating in Hilo.

14.2 Will participants in the Hilo offer have the choice to refuse reductions?

Answer :

As stated on Hilo[2]'s website, customers remain in control of their devices at all times, regardless of whether or not they respond to Hilo's challenges.

14.3 All things being equal, does the kWh erased via dynamic pricing have the same value as the kWh erased via Hilo?

Answer :

In addition to the costs associated with power supply, it is true that this erasure will in both cases reduce the pressure on the transmission and distribution networks and, in the medium and long term, the investments needed on these networks. The magnitude of this impact is obviously (primarily) dependent on the achievement of a sufficient volume of contribution from these means at the forefront.

However, Hilo has the important advantage over dynamic pricing of offering direct control of customer erasure, rather than relying on the degree of customer response to the price signal. In addition, Hilo offers better control of both preheating and recovery periods, which reduces the risk of peak displacement. As a result, peak erasure provided by Hilo has greater value for the Distributor than that resulting from dynamic pricing.

See also answers to questions 1.1 and 4.1 of the request for information No.1 of the AQCIE-CIFQ at HDQ-5, document 3.

14.4 Beyond the direct compensation of participants through dynamic pricing and the Hilo offer, what are the Distributor's estimates for program, management and marketing costs inherent in dynamic pricing and Hilo?

Answer :

The cost of the solution to offer dynamic pricing in the winter of 2019-2020, estimated at $9.5 million in October 2018, is $10.8 million, of which $10.4 million constitutes investments**. This** one-time cost**t of $10.8 million** is associated with IT development

[2] **https://www.hiloenergie.com/fr-ca/faq/questions-generales/#allez-vous-commander-a-distance-les-appareils-des-clients-**

and implementation of the solution. It should be noted that the solution developed will allow eventual deployment to all subscriptions to the D and G tariffs for which only energy is registered in the billing system.

Marketing and operational costs, including those associated with increased workload to provide services for customers adhering to dynamic pricing options, are recurring costs. Initially estimated at $1.3 million in October 2018, these costs amounted to $0.5 million in the winter of 2019-20. It should be noted that while these costs are recurrent in nature, they are expected to vary depending on the marketing strategy put in place and the number of registered participants.

The Distributor does not have Hilo's own program, management and marketing cost information. In matters of the Distributor's costs relating to the management of this contract, these are marginal.

18 Demand management tender

References

(i) HQD-2, document 3, p. 21;

(ii) http://www.ieso.ca/en/Sector-Participants/Market-Operations/Markets-and-Related-Programs/Demand-Response-Auction

(iii) R-3541-2004, SE-AQLPA-07, page 10.

(iv) https://www.tvanouvelles.ca/2005/07/15/hydrosolution-vendue-pour-92-m

(ii) **Preamble**

(i) Hydro-Québec's Hilo subsidiary will market and operate technological tools used to control the consumption of certain loads. The delivery of services will be framed by an over-the-counter contract between the subsidiary and the Distributor.

(ii) The IESO's annual Demand Response (DR) Auction provides a transparent and cost-effective way to select the most competitive providers of DR, while ensuring that all providers are held to the same performance obligations.

(iii) Stemming from what precedes, we realize that the profits allocated to HydroSolution by Hydro-Québec Distribution create market inequity.

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HydroSolution, which is in direct competition with the entire air conditioning, ventilation and control industry, with all Hydro-Québec Distribution customers, enjoys a series of major advantages from the Distributor that its competitors do not have access to. This creates an imbalance in the industry: HydroSolution has access to a significant pool of potential customers (three million) and promotional and administrative services at a cost below their market value, in addition to benefiting from Hydro-Québec Distribution's notoriety and other benefits, which gives it a privileged competitive position.

(iv) Hydro-Québec Distribution announces the sale of HydroSolution, for $92 million, to a consortium consisting of Gaz Métropolitain Plus, Caisse de dépôt et placement du Québec and Comfort Expert Inc.

19.1 To ensure that the means of demand management are the most efficient and least costly, IESO carries out tenders. Please explain how the Distributor can ensure that the demand redctions provided by the Hilo subsidiary will be the least expensive and most efficient.

Answer :

See the answer to question 2.18 of the FCEI of HQD-5, document 6.

19.2 Can the Distributor confirm that the reductions provided by the subisidiary Hilo will be provided at the lowest possible cost? Please justify.

Answer :

See the answer to question 2.18 of the FCEI of HQD-5, document 6.

19.3 Please confirm that Hilo will derive commercial benefits similar to those enjoyed by the Hydro-Solution subsidiary in 2004 through its proximity to the Distributor.

Answer :

This issue goes beyond the scope of this case.

19.4 Please indicate whether the unfair commercial competitive benefits enjoyed by the Hydro-Solution subsidiary, as described in iii) contributed to its sale by the Distributor.

Answer :

This issue goes beyond the scope of this case.