

**DEMANDE DE RENSEIGNEMENTS N° 1 DE LA RÉGIE DE L'ÉNERGIE (LA RÉGIE) RELATIVE À  
L'AVIS SUR LES APPROVISIONNEMENTS EN FOURNITURE ET TRANSPORT DE GAZ NATUREL  
NÉCESSAIRES POUR RÉPONDRE AUX BESOINS EN GAZ NATUREL DES CONSOMMATEURS  
QUÉBÉCOIS À MOYEN ET LONG TERMES**

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**1. Référence :** Pièce C-GM-GI-0004, p. 2 et 3.

**Préambule :**

*« Not all markets feature low-cost or immediate access to low-cost supplies; eastern Canadian markets have some access to proximate low-cost supplies in the Marcellus and Utica today, and prospective areas like Quebec Utica Shale and Anticosti island could provide regional supplies in the future, but settlement tolls provide optimal access to those supplies, and delays implementing the settlement tolls and associated projects increase the cost of delivered supply into the region.*

*The Energy East project does not impact flows or pricing in the Prairie or Northern Ontario section of TransCanada's Mainline, nor does the project impact Henry Hub or AECO prices. However, the project does have a material impact on pricing and deliverability into EDA markets on cold winter days. Demand in those markets is expected to exceed delivery capacity even if temperatures hold close to norms starting in winter 2016/2017. On those days, prices must rise to match New England prices, and winter gas markets in New England currently price at oil product levels in order to shift power generation from gas-fired to oil-fired power units and preserve gas supplies for heating customers. On cold days in New England, prices rise toward \$20/mmbtu. According to forward price markets, New England is the highest-priced liquid market in the world for winter 2014/2015.*

*The number of constrained days and the price levels necessary to balance supply and demand on those cold days depends on the pace of pipeline development into New England markets. A delay in the Northeast Energy Direct project—scheduled to come online in November, 2018—could expose Quebec consumers to peak month winter prices in the \$10 to \$12/mmbtu range. A delay in the Constitution pipeline beyond the November, 2018 Energy East conversion date would threaten system reliability in the EDA and New England regions. Even if the projects come online on schedule, winter delivered prices in Quebec increase by \$0.50/mmbtu between 2018 and 2021 if Energy East proceeds. In a cold winter, prices could rise by \$2.00/mmbtu.*

*Demand projects, supply potential, and the timing of pipeline expansions all remain highly uncertain. Maintaining gas supply services to meet Quebec peak winter day demand requires either new pipeline capacity into New England or maintaining the existing 3.2 bcf/d deliverability in eastern Ontario on the TransCanada Mainline. » [nous soulignons]*

La Régie constate que la réalisation ou non de plusieurs projets de nouveaux gazoducs et d'expansion de gazoducs existants aura des impacts sur les capacités et la fiabilité d'approvisionnement ainsi que sur les prix payés dans la zone est (EDA).

The Régie finds that the realization or not of many new pipeline or existing pipeline expansion projects will impact the capacity and the reliability of supply as well as prices paid in the EDA Zone

**Demandes :**

- 1.1 Veuillez présenter les scénarios de réalisation des différents projets qui, idéalement, permettraient d'assurer la fiabilité d'approvisionnement de la zone EDA en journée de pointe sur la période 2015-2030. Dans un premier temps, considérez le cas où le projet Énergie Est se réalise et, dans un second temps, le cas où ce projet ne se réalise pas. Veuillez élaborer sur les prix attendus selon ces scénarios et sur leur probabilité de réalisation.

**Requests :**

- 1.1 Please describe the implementation scenarios of the various projects that would ideally ensure reliability of supply on a peak day in the EDA zone over the period of 2015-2030. At first, consider the case where Energy East Project is realized and in a second stage if the project is not carried out. Please elaborate on the expected prices according to these scenarios and on the likelihood of the project being realized.

**Response :**

Wood Mackenzie's analysis presented in Section 3 of the paper discussed the number of constrained days in the EDA zone and New England assuming the **Energy East project is realized**. Wood Mackenzie includes the following pipeline expansions in that case :

- Constitution Pipeline in service date expected July, 2016. Constitution pipeline, a fully-contracted 650 mmcf/d pipeline, will deliver gas from the Northeast Pennsylvania area of the Marcellus Shale to an interconnect with the Iroquois Pipeline at Wright, NY. The added deliverability reduces peak day demand at Iroquois. The project is progressing through FERC permitting with a decision expected in January, 2015.

A delay in the Constitution pipeline's online date beyond the Energy East project would increase the threat to system reliability in Quebec.

- The Eastern Mainline project is expected to be in service in November, 2016 and adds 600 mmcf/d of capacity into EDA markets from Parkway. Because the Eastern Mainline project has not yet been proposed, the volume and timing of the expansion are assumed based on replacement of current firm capacity as announced on Transcanada's Q2 2014 earnings call, and the proposed conversion timing for the Energy East oil project. Should the Energy East conversion project proceed, ensuring reliability within the EDA zone requires an Eastern Mainline project; Wood Mackenzie assigns a high probability to project. Specific timing and volume remain uncertain.

Maintaining current reliability levels into the EDA zone would require additional Eastern

mainline capacity above 600 mmcf/d, in addition to Constitution coming into service, to meet expected peak day demand growth and fully offset the converted capacity.

Prices in New England and the EDA zone will rise toward oil-product levels on cold winter days even after the Constitution project is completed. The added capacity into the region is not sufficient to fully meet potential demand at gas-based prices.

In the base case, Wood Mackenzie's analysis assumes a major pipeline project is built into New England during the 2015 to 2030 period. High sustained winter prices, coal and nuclear plant retirements, and efforts to reduce regional dependence on oil products, as well as proximity of low-cost supplies in the Marcellus underpin this assumption. Yet despite this assumption, timing and volume of the new capacity is uncertain, and one of several proposed projects could ultimately succeed. Our Section 3 analysis includes Kinder Morgan's 1.0 bcf/d Northeast Energy Direct («NED») project.

The NED project will not change peak day requirements in the EDA zone; on a peak day, Waddington flows into Iroquois are still likely to reach 725 mmcf/d. However, the project will impact prices on that peak day, and will reduce the number of days that Waddington flows reach 725 mmcf/d. Added flows into New England from the south mean that more end-users can be served on a peak day, so the added capacity will reduce the price required to balance supply and demand.

**Without the Energy East project**, peak day deliverability into the combined EDA zone and New England increases when the Constitution pipeline comes online and delivers Marcellus supplies. The change reduces the degree to which oil-linked New England prices on cold days pull up prices at Waddington, Quebec, and Eastern Ontario because capacity is adequate to meet peak day demand even when Iroquois pipeline flows at 725 mmcf/d.

Prices across New England area decline when NED project comes online in November 2018, and further reduces Waddington, Quebec and Eastern Ontario prices.

- 1.2 Veuillez indiquer s'il y a des projets de gazoducs, parmi ceux cités dans votre étude, qui doivent nécessairement se réaliser pour assurer la fiabilité d'approvisionnement de la zone EDA en journée de pointe sur la période 2015-2030, selon que le projet Énergie Est se réalise ou non. Veuillez élaborer sur les risques et conséquences de non réalisation de ces projets.
- 1.2 Please indicate if any pipelines projects amongst those mentioned in your study have to materialize to insure reliability of supply in the EDA zone on a peak day over the period of 2015-2030, whether or not Energy East is realized. Please elaborate on the risks and consequences if those projects are not implemented.

**Response :**

Should the Energy East conversion take place, the concurrent completion of a 600 mmcf/d Eastern Mainline project, the Constitution project, would not be sufficient to maintain current

reliability within the EDA zone and markets served through EDA infrastructure. Relative to winter 13/14, we expect an increase of 125 mmcf/d in peak day demand in the area by winter 16/17. There is not sufficient flexible demand or peak day supply alternatives available to manage the potential lack of capacity even with Constitution coming online by winter 16/17.

Without Energy East, the increased deliverability on Constitution more than offsets expected peak day load growth in New England and the EDA zone. Although Wood Mackenzie deems a New England debottlenecking project, such as NED likely, the delay or downsizing of such project would reduce reliability.

- 1.3 En posant l'hypothèse que le projet Énergie Est se réalise selon l'échéancier prévu, veuillez décrire quels sont les moyens qui, à votre avis, devraient être mis en place pour assurer la fiabilité d'approvisionnement de la zone EDA en journée de pointe sur la période 2015-2030.
- 1.3 Assuming Energy East is implemented as planned, please describe what are the solutions that have to be put in place, according to you, in order to ensure reliability of supply on a peak day in the EDA zone over the 2015-2030 period.

**Response :**

Assuming Energy East is implemented, ensuring a reliable source of supply on a peak day in the EDA zone requires maintaining existing capacity into the region or offsetting fully the required capacity converted to oil.

- 1.4 Quelles sont les modifications au projet Énergie Est qui pourraient être envisagées de façon à assurer la fiabilité d'approvisionnement de la zone EDA en journée de pointe sur la période 2015-2030?
- 1.4 What are the changes to the Energy East Project that could be considered in order to ensure reliability of supply on a peak day in the EDA zone over the 2015-2030 period?

**Response :**

Please refer to response 1.3.

- 1.5 À votre avis, doit-on conclure que la réalisation du projet Énergie Est dans sa forme actuelle aura pour conséquence que les distributeurs québécois ne pourront pas contracter suffisamment de capacité de transport ferme pour assurer un approvisionnement fiable en

journée de pointe sur la période 2015-2030? Veuillez élaborer.

- 1.5 In your opinion, should we conclude that the implementation of Energy East Project in its current form will mean the Quebec distributors will not be able to contract sufficient firm transportation capacity to ensure reliable supply on a peak day over the 2015-2030 period? Please elaborate.

**Response :**

Because of the uncertainty surrounding the timing of the Settlement, the Energy East project, the Eastern Mainline project and the timing of pipeline additions in New England, Quebec distributors have no clear options for securing capacity to maintain reliability on a peak day between 2015 and 2030. Although alternatives to Transcanada sourcing from Dawn or North Bay could be developed in the long-term but there are no certain solutions for the 2016-2020 time period, and limited time to develop new options.

- 1.6 Si c'est le cas, veuillez élaborer sur les solutions, et les coûts associés, que les distributeurs devraient envisager pour être en mesure d'assurer la fiabilité d'approvisionnement de la demande en journée de pointe sur la période 2015-2030.
- 1.6 If so, please elaborate on the solutions and the associated costs the distributors should consider in order to ensure reliability of supply of the peak day demand over the 2015-2030 period

**Response :**

The lack of clarity on the timing and specifications of pipeline options make the costs of ensuring reliability impossible to assess.

- 2. Référence :** Pièce C-GM-GI-0004, p. 29.

**Préambule :**

« [...] *Wood Mackenzie estimates that the Eastern Mainline Expansion could replace 600 mmcfd of converted capacity in the initial stage.* »

**Demande :**

- 2.1 Veuillez préciser ce que vous entendez par "*initial stage* ». Le cas échéant, veuillez expliquer si cette phase initiale pourrait être suivie par d'autres étapes qui permettraient d'augmenter la capacité du gazoduc à l'horizon 2030. Veuillez élaborer sur l'impact que ces phases subséquentes pourraient avoir sur les approvisionnements de la zone EDA.

**Request :**

- 2.1 Please clarify what you mean by “initial stage”. If applicable, please explain whether this initial phase could be followed by other steps that would increase the capacity of the pipeline to 2030. Please elaborate on the impact these may have on subsequent EDA area supply

**Response :**

Wood Mackenzie refers to the 600 mmcf/d mainline expansion capacity discussed in Transcanada’s Q2-2014 earnings call as the initial expansion stage. The proposed 36” pipeline and related compressor stations would allow subsequent expansion stages. In its evidence, Transcanada states its willingness to build additional capacity if customers commit to 15 year contracts for firm capacity.

3. **Référence :** Pièce C-GM-GI-0004, p. 25.

**Préambule :**

*« Timing is therefore important for Ontario and Québec consumers to access the abundant supply of the Marcellus and Utica shale formations. »*

**Demande :**

- 3.1 Veuillez préciser quels sont les projets qui sont critiques, d’un point de vue échéancier, pour permettre à l’Ontario et au Québec d’avoir accès au gaz de Marcellus.

**Request :**

- 3.1 Please specify which projects are critical, timeline wise, to allow Ontario and Quebec access to gas from Marcellus

**Response :**

Please refer to table 6 (C-GM-GI-0004, p. 23).

4. **Références :** (i) Pièce C-GM-GI-0004, p. 2;  
(ii) Pièce C-GM-GI-0004, p. 32  
(iii) Pièce C-GM-GI-0004, p. 17.

**Préambule :**

- (i) *« However, the project does have a material impact on pricing and deliverability into EDA markets on cold winter days. Demand in those markets is expected to exceed delivery capacity even if temperatures hold close to norms starting in winter 2016/2017. »*

(ii) « Nonetheless, demand on peak winter days do exceed post-conversion capacity starting in winter 016/2017. On cold winter days, heavy heating loads in eastern Ontario, industrial and heating demand in Quebec, combine with high US exports to surpass the 2.6 bcfd of deliverability available after the Energy East conversion, and on those days, prices in the integrated region will shift up in order to balance available supply with demand. By 2018/2019, demand on 10 days will exceed delivery capacity, assuming Northeast Energy Direct comes online in November 2018. Should the project be delayed, more constrained days would occur. By 2020, demand on 14 days exceeds maximum capacity, and EDA markets will connect with high-priced New England markets. January gas prices at Waddington could exceed Dawn prices by \$3.00/mmbtu. Price levels depend on the pace of pipeline debottlenecking into New England. »

(iii) « Holding the weather constant, we expect this winter to be about 80 mmcf tighter than last winter because of the impending retirement of the Vermont Yankee nuclear plant. We estimate that, this winter, the New England gas market will be constrained on about 70 winter days, and that imports on Iroquois at Waddington will be near capacity, in excess of 1 bcfd, on these days. In the medium term, New England's call on imports at Waddington will decline, albeit intermittently. We expect the following fundamental changes: »

**Demandes :**

- 4.1 Veuillez présenter les hypothèses utilisées pour la modélisation de la demande dans la zone EDA en journée de pointe jusqu'en 2020 et jusqu'en 2030.

**Requests :**

- 4.1 Please present the assumptions used to model the EDA area peak day demand until 2020 and 2030.

**Response :**

Please note that the Table10 from C-GM-GI-0004, p. 33 is amended as follows:

**Table 10. Peak day flows for EDA and downstream markets (mmcf/d)**

|              | Eastern Ontario | Quebec | PNGTS Exports | IFFCO | US LDC | Iroquois Exports | Total |
|--------------|-----------------|--------|---------------|-------|--------|------------------|-------|
| 11/12 Winter | 665             | 1 045  | 211           |       | 122    | 1 204            | 3 246 |
| 12/13 Winter | 757             | 1 035  | 190           |       | 125    | 1 219            | 3 326 |
| 13/14 Winter | 720             | 1 030  | 217           |       | 152    | 1 151            | 3 270 |
| 14/15 Winter | 757             | 1 130  | 282           |       | 155    | 1 050            | 3 374 |
| 15/16 Winter | 757             | 1 133  | 282           |       | 155    | 1 050            | 3 377 |
| 16/17 Winter | 774             | 1 149  | 282           |       | 155    | 725              | 3 085 |
| 17/18 Winter | 780             | 1 154  | 282           | 72    | 155    | 725              | 3 167 |
| 18/19 Winter | 788             | 1 165  | 282           | 72    | 155    | 725              | 3 187 |
| 19/20 Winter | 785             | 1 165  | 282           | 72    | 155    | 725              | 3 185 |
| 20/21 Winter | 798             | 1 176  | 282           | 72    | 155    | 725              | 3 208 |
| 21/22 Winter | 791             | 1 181  | 282           | 72    | 155    | 725              | 3 207 |

Estimates of the EDA area peak day for Eastern Ontario and Quebec are developed using a model that incorporates the following variables:

- Historic peak day demand based on pipeline deliveries recorded in the past five years;
- Historic heating degree days derived from daily temperatures;
- Residential and commercial customer growth estimates based on population trends and economic growth;
- Industrial demand is based on economic growth and an assessment of the likelihood of proposed gas-intensive industrial projects based on construction status, permitting status, and developer.
- Power demand is based on a dispatch model that assesses generation levels for each gas-fired power plant within the region based on expected generation loads, imports and exports into and out of the region, and competing fuels and technologies.

Expected growth in the residential, commercial, industrial, and power sectors is added to the historic peak day demand level to derive a new peak day. We believe that this demand-based method, provides an adequate estimate of the peak day demand for the purpose of analysing the capacity needed to meet same.

The peak day analysis includes estimates of demand that can be served through EOT capacity.

- For US LDCs served off of Transcanada in New York and Vermont, Wood Mackenzie uses the historic peak day to estimate demand due to lack of data on likely customer additions in these isolated service areas.
- For PNGTS, Wood Mackenzie estimates peak day flows based on peak day prices in New England, and daily realized winter flows on the pipeline.
- In terms of Iroquois' call on imports at Waddington, we have built a model to forecast New England's demand (some of which is served on Tennessee, which takes gas from Iroquois at Wright, in upstate New York). This model is based on the variation in daily weather typical in a normal winter (the 15-year average) and our view of fundamental changes in and around New England. For example, the call on imports at Waddington declines significantly after Constitution is built, because Tennessee can source gas from Constitution (which terminates at Wright) rather than calling on more Canadian gas via Iroquois at Waddington.



A colder-than-normal winter would increase both demand and price over the model forecasted levels which are based on an average winter.

- 4.2 Veuillez expliquer la méthodologie et les hypothèses utilisées pour déterminer le nombre de journées présentant des contraintes d'approvisionnement. Veuillez préciser comment 70 jours se comparent à la normale.
- 4.2 Please explain the methodology and assumptions used to determine the number of days with supply constraints. Please explain how 70 days compare to normal

**Response :**

To model supply constraints into New England, we have developed a daily gas flow model, which forecasts demand based on both daily weather and our outlook for New England supply-demand fundamentals (e.g. baseload power plants, such as Vermont Yankee, retiring, but also things like customer conversions to gas as a heating fuel, or new pipeline construction). Based on the distribution of weather within a normal winter (we use the 15-year average), we then translate daily demand into an implicit outlook for utilization on pipelines into New England into an explicit basis outlook.

The number of constrained days during the winter is highly dependent on the weather. Overall, though, in recent years the New England market has, all other things equal, tightened, primarily because of declines in LNG imports, declines in eastern Canadian production entering New England via Maritimes & Northeast Pipeline, and retirements of coal plants in New England. Several years ago, only a dozen days would price above \$10/mmbtu levels in a normal winter. Prices on constrained days depend on oil, and higher oil prices have led to higher peak day prices. There are more constrained days, and prices on those constrained days are higher.

**5. Référence : Pièce C-GM-GI-0004, p. 3.**

Préambule :

*« The analysis presented in Sections 1 and 2 are based on Wood Mackenzie's Spring 2014 North American Gas Long-term Outlook. Wood Mackenzie updates Long-term Outlooks biannually, using the latest fundamental data and infrastructure project status available at the time. Robert Fleck's testimony for the eastern Shipper's group is consistent with the Spring 2014 Long-term Outlook. However, because the update is based on best-available information, and substantive assumptions were determined in February, 2014, subsequent developments suggest increased probabilities for different market outcomes:*

- WCBS production potential increased.*
- Settlement and eastern Canadian project development delayed.*
- IFFCO fertilizer capacity firming up in Quebec.*
- Timing on Northeast debottlenecking delayed. »*

**Demande :**

- 5.1 Veuillez préciser si d'autres informations plus récentes peuvent modifier les constats du rapport.

**Request :**

- 5.1 Please specify if more recent information might influence the findings of the report.

**Response :**

- WCSB production potential remains consistent with Wood Mackenzie's September 3, 2014 report.
- The status of the Settlement agreement and eastern Canadian project development has not changed since our September 3, 2014 report.
- On September 17, 2014, IFFCO Canada announced a delay in their Becancour fertilizer plant. IFFCO Canada has secured necessary government approvals, but cost assessment for both engineering, procurement and construction as well as gas supply arrangements is ongoing. IFFCO Canada has announced their intention to commence construction in 2015, and to start operation at the plant in 2018. This delay would reduce peak-day demand in winter 17/18.
- Northeast debottlenecking : This summer, the Massachusetts legislature declined to consider a bill that would have supported the New England States Committee on Energy's work to back, and to fast-track, a new pipeline project into New England. This lack of commitment threatened the timing on Wood Mackenzie's assumed 2018 1.0 bcf/d NED project. However, in September, Northeast Utilities (a major power generator in New England) announced a partnership with Spectra to build a major pipeline into the region. This announcement suggests that New England is organizing the constituents necessary to execute a major project. The announced Access Northeast project builds on Spectra's previously announced Algonquin Incremental Market («AIM») and Atlantic bridge projects, and offers 1.0 bcf/d of capacity into New England. An online date of November, 2018 is planned. Because Access Northeast adds the same capacity into New England as our assumed Kinder Morgan NED project, the impact on prices and constrained days would match the impact of NED. Still, the projects have numerous hurdles to clear and a delay of one or two years from the planned completion date is likely.

**6. Référence :** Pièce C-GM-GI-0004, p. 14.

**Préambule :**

*« By 2020, eastern supplies are expected to make up 67% of the market, up from 21% in 2013. A delay in the settlement or in New England infrastructure development would mean leave the region dependent on expensive long-haul capacity from Western Canada. »* [Nous soulignons]

**Demande :**

6.1 Veuillez expliquer l'ampleur de la modification de la source des approvisionnements entre 2013 et 2020. Précisez les hypothèses utilisées.

**Request :**

6.1 Please explain the extent of the change in the source of supply between 2013 and 2020. Specify the assumptions used

**Response :**

Wood Mackenzie estimates the regional supply mix into a province or area using the Gas Pipeline Competition Model (GPCM). GPCM connects 180 basin and play level supply areas to over 300 demand areas through segment-specific pipeline connections and storage fields. Rate structures and contract status on individual pipelines determine flows and prices across the North American gas grid.

The Quebec supply mix between 2013 and 2020 reflects continued reliance on supplies from the Western Canadian Sedimentary Basin, but also an increasing market share for Marcellus and Utica supplies in the province. Expansions from Dawn to Parkway and from Parkway into the EOT deliver Marcellus and Utica supplies. Those supplies access Dawn and Parkway indirectly by flowing west on Kinder Morgan's planned reversal of REX zone 3 capacity, and directly through National Fuel Gas' planned capacity expansion into Ontario at Niagara.

**7. Référence :** Pièce C-GM-GI-0004, p. 15-16.

**Préambule :**

*« The Indian Farmers Fertilizer Cooperative (IFFCO), partnering with La Coop Federee of Quebec, has proposed to set up a \$1.6 billion urea plant with a production capacity of up to 1.6 million tonnes of urea and 760,000 tonnes of diesel exhaust fluid. IFFCO Canada secured land for the plant at Becancour Port and Industrial Park in 2013, and received construction permission from the Quebec Provincial Government in April 2014. The commissioning of the plant is scheduled for the end of 2017. Wood Mackenzie estimates that the IFFCO plant could consume as much as 73 mmcf/d of natural gas, exclusively for their first production phase. »*

*Although the project was not included in Wood Mackenzie's Spring 2014 outlook, subsequent progress and approvals raise the probability that the project will come online.* » [nous soulignons]

**Demande :**

- 7.1 Veuillez élaborer sur les facteurs qui augmentent la probabilité de mise en service d'IFFCO.

**Request :**

- 7.1 Please elaborate on the factors that increase the likelihood of gas service to IFFCO

**Response :**

The IFFCO urea plant, once commissioned, will be one of the largest natural gas consumers in Quebec, and having reliable and competitive supply of natural gas will be crucial for the viability of the plant. Therefore, having sufficient pipeline capacity and more visibility on the pipeline toll structure would be key factors to evaluate the economic feasibility of the project and the likelihood of gas service to the plant. IFFCO's September 17, 2014 press release suggests the importance of securing reliable gas supply.

8. **Référence :** Pièce C-GM-GI-0004, p. 18.

**Préambule :**

*« Although we expect debottlenecking both into and around New England, the timing is subject to significant risk.*

- *Constitution has faced major opposition in New York; however, it is already progressing through the Federal Energy Regulatory Commission permitting process, with a decision expected in January 2015. We see some risk that the project would not be completed for winter 2016-'17, but little risk of its slipping beyond then.*

- *The timing around Northeast Energy Direct, or a different gas pipeline option such as Spectra's Atlantic Bridge, is much less certain. Building a major gas pipeline into New England is predicated either a political alliance (such as the New England States Committee on Electricity) or on regulatory changes within ISO New England that support merchant generators' backstopping gas pipeline capacity development. The former is on hold until this fall's Massachusetts governor's race, while the latter is beset by small balance sheets and disparate interests. New England gas and power prices are so high that we expect new infrastructure to be developed into the region, despite siting and permitting difficulties, but a one-, two-, or even three-year delay relative to our outlook is possible (and indeed, a mild winter could potentially stall development).* »

**Demande :**

- 8.1 Avez-vous des informations permettant de mettre à jour votre estimation du risque important? Veuillez élaborer.

**Request :**

- 8.1 Do you have information to update your estimate of the high risk? Please elaborate

**Response :**

Our view of Constitution remains the same, and Constitution is critical, but not sufficient, for ensuring deliverability for EDA zone customers due to growth in forecast eastern Ontario and Quebec LDC demand and PNGTS exports..

A major New England debottlenecking project, such as the NED project included in our report, could also, indirectly, reduce winter costs for EDA zone customers. The recent announcement between Northeast Utilities and Spectra represents positive progress toward such a project. The agreement suggests that New England is organizing the structures and key constituents necessary to back the project. The potential for delay now looks more like one or two years than three or more relative to our November, 2018 estimated online date.

9. **Référence :** Pièce C-GM-GI-0004, p. 21.

**Préambule :**

*« In the near term, a combination of project delays and the Energy East conversion could provide challenges for Quebec customers on peak winter day (no additional capacity was available in TransCanada's recent open season, dependence on Constitution and Iroquois reversal). »*

**Demande :**

- 9.1 Veuillez élaborer, principalement en ce qui concerne les impacts monétaires attendus.

**Request :**

- 9.1 Please elaborate, mainly on the expected monetary consequences.

**Response :**

We have not assessed the monetary consequences of the reduced reliability, but would assume that the current reliability holds value.

**10. Référence :** Pièce C-GM-GI-0004, p. 31-32.

**Préambule :**

*« On 97 days last winter, deliveries exceeded post-Energy East capacity, and average January flow was 2.9 bcfd, 0.3 bcfd above the 2.6 bcfd capacity. However, downstream demand is not likely to reach last winter's levels once Williams' Constitution pipeline comes online. Constitution would deliver 650 mmcf of low-cost Marcellus Northeast Pennsylvania supply into the Iroquois pipeline downstream of Waddington. Because the new project is expected to flow close to capacity, Iroquois would pull only 725 mmcf of gas from Waddington on a peak day. That reduced downstream is offset somewhat by higher expected peak day EDA demand growth. In this analysis, Wood Mackenzie assumes that Constitution comes online in November, 2015, but recent permitting challenges in New York suggest delays. [nous soulignons]*

*Because of the potential reduced call on gas at Waddington, post-conversion capacity would be adequate to cover monthly EDA and downstream requirements in 2015/2016. »*

**Demande :**

10.1 Veuillez élaborer, et le cas échéant, mettre à jour votre évaluation des délais.

**Request :**

10.1 Please elaborate and, if applicable, update your evaluation of the delays

**Response :**

Constitution has faced significant opposition from constituents along its right-of-way in New York, although no insurmountable hurdles have occurred so far. Constitution is scheduled to be completed in late 2015 or 2016, and Wood Mackenzie does not expect the project to be online for winter 2015-'16. Most likely, the project will be completed before winter 2016-'17, although we see some probability of further delay.

**11. Référence :** Pièce C-GM-GI-0004, p. 33.

**Préambule :**

Table 10 - Peak day flows for EDA and downstream markets (mmcf)

|              | Eastern<br>Ontario | Quebec | PNGTS<br>Exports | IFFCO | US LDC | Iroquois<br>Exports |
|--------------|--------------------|--------|------------------|-------|--------|---------------------|
| 11/12 Winter | 665                | 1,045  | 211              |       | 122    | 1,204               |
| 12/13 Winter | 757                | 1,035  | 190              |       | 125    | 1,219               |
| 13/14 Winter | 720                | 1,030  | 217              |       | 152    | 1,151               |
| 14/15 Winter | 757                | 1,130  | 282              |       | 155    | 1,050               |
| 15/16 Winter | 757                | 1,133  | 298              |       | 155    | 1,050               |
| 16/17 Winter | 774                | 1,149  | 282              |       | 155    | 725                 |
| 17/18 Winter | 780                | 1,154  | 324              | 72    | 155    | 725                 |
| 18/19 Winter | 788                | 1,165  | 282              | 72    | 155    | 725                 |
| 19/20 Winter | 785                | 1,165  | 282              | 72    | 155    | 725                 |
| 20/21 Winter | 798                | 1,176  | 282              | 72    | 155    | 725                 |
| 21/22 Winter | 791                | 1,181  | 284              | 72    | 155    | 725                 |

**Demandes :**

11.1 Veuillez élaborer sur la méthode utilisée pour établir les « peak flow days ».

**Requests :**

11.1 Please elaborate on the method used to establish the peak flow days.

**Response :**

Please refer to Response 4.1.

11.2 Veuillez fournir les hypothèses utilisées pour établir l'estimé de demande à la pointe pour le Québec.

11.2 Please provide the hypothesis used to estimate the peak demand for Quebec

**Response :**

The hypothesis is that under 15-year normalized weather and with an average growth rate of 0.8% for winter seasonal demand between 2014 and 2022, the historic peak-day demand over weather-normalized average winter demand for Quebec stays constant for future winters. The growth rate in peak day demand is consistent with our annual demand growth rate, which is in turn based on the sectoral composition of Quebec customers. The reported Quebec peak day demand does not include IFFCO's demand. See response 4.1.

11.3 Cette méthode tient-elle compte de l'entreposage et autres moyens pour faire face à la pointe?

11.3 Does this method takes into account storage and other means to meet the peak demand?

**Response :**

The method is based on physical gas deliveries into Quebec as observed on the TCPL EOT system, which would include supplies from sources such as storage. This would not include indigenous Quebec production or local storage facilities that do not utilize the TCPL EOT system.

**12. Référence :** Pièce B-0047, p. 11, 13 et 14.

**Préambule :**

*« This analysis is based on capacity requirement in Quebec. Should demand decrease significantly, the negative effect of Energy East on the Quebec market would be reduced. Conversely, should demand increase significantly, as forecasted by KPMG-SECOR, the negative effect of Energy East on the Quebec's gas supply would increase. »*

**Demandes :**

12.1 Le rapport fait état d'une possibilité de diminution de la demande. Veuillez présenter les conditions qui rendraient un tel scénario probable.

**Requests :**

12.1 The report makes reference to a possible decrease of the demand. Please provide the conditions under which this scenario would become likely.

**Response :**

Wood Mackenzie assumes the reference to this question to be Pièce C-GM-GI-0004, p. 33, And as answered accordingly. Although we do not expect a decline in demand through the study period, conditions other than price and capacity determine market size. If policy support for the use of gas in core or power markets erodes, or if economic conditions fall short of the forecast used to derive this outlook, demand may not meet the expectations developed for this report. Energy efficiency beyond our assumed improvements could also reduce long-term demand.



12.2 Veuillez élaborer sur la probabilité de diminution envisagée.

12.2 Please elaborate on the likelihood of the decrease referred to

**Response :**

We consider growth in the Quebec market probable, as such decrease in demand is unlikely.