

**RÉPONSES DU TRANSPORTEUR  
À LA DEMANDE DE RENSEIGNEMENTS NUMÉRO 1  
D'ONTARIO POWER GENERATION INC. (OPG)**



1 **Date: 9 September 2005**  
2 **Re: Interrogatories on Evaluation of Provisional Discount Policy**  
3 **(HQT-2,**  
4 **Doc. 3) and the Evidence of Ren Orans (HQT-4, Doc. 3)**  
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6 **1. Previous Discounting Experience**

7 References: R-3549-2004 – Phase 2, HQT-2, Document 3, page 5  
8 Preamble: The Background section of HQT's Evaluation of Provisional  
9 Discount Policy ("Evaluation") notes at page 5 that "From 1997 to 2001,  
10 *Hydro-Québec bylaw number 6591* allowed the Transmission Provider to offer  
11 discounts applicable on every point-to-point service that it offers. This  
12 provision conforms to that adopted by the *Federal Energy Regulatory*  
13 *Commission* (FERC) under order 888."

14 1.1 Please provide HQT's evaluation of the impact of the discounting  
15 regime that was in place during the 1997 to 2001 period.

16 **R1.1 Le Transporteur n'a pas réalisé une telle analyse. Le**  
17 **Transporteur rappelle par ailleurs que pendant cette période,**  
18 **les conditions dans les marchés environnants étaient fort**  
19 **différentes. Notamment, le marché de l'Ontario n'était pas**  
20 **ouvert.**

21 **2. Design of Discount Policies in other Jurisdictions**

22 References: R-3549-2004 – Phase 2, HQT-2, Document 3, page 6-7  
23 Preamble: Section 2.1 of HQT's Evaluation describes the Discount Policy that  
24 was in place from January 15, 2003 to January 14, 2004. The impact of this  
25 Discount Policy on capacity utilization and total revenue is clearly dependent  
26 on its specific design characteristics.

27 2.1 Please confirm that HQT's Evaluation addresses only the specific  
28 design of the Discount Policy that was in place from January 15, 2003  
29 to January 14, 2004 and that it does not evaluate other possible  
30 discount policies such as those that are utilized in other jurisdictions.

31 **R2.1 Le Transporteur le confirme.**

1 2.2 Please provide details of any discount policies of Transmission  
2 Providers that are known to HQT. In particular, please describe the  
3 discount policies and practices of the Midwest ISO. For each discount  
4 policy described please include details pertaining to:

- 5 • The period during which discounts are available (off-peak,  
6 on-peak, within a day, seasonally, etc),  
7
- 8 • The length of the period for which reservations can be  
9 obtained at the discounted price (hourly, daily, weekly,  
10 monthly, etc.),  
11
- 12 • The amount of discretion allowed the Transmission  
13 provider to determine (i) the shippers that qualify for the  
14 discount, (ii) the amount of the discount, etc.,  
15
- 16 • The degree of transparency of the discounts provided,  
17
- 18 • Whether different discounts apply to different (i) paths, (ii)  
19 types of transmission customers, (iii) exports vs. wheeling,  
20 (iv) other criteria,  
21
- 22 • Reduced rates that apply specifically to exports and/or  
23 wheeling power through the Transmission Provider's  
24 system, and  
25
- 26 • The extent to which specific consideration is given to  
27 competitive alternatives in determining the discount  
28 provided to customers.

29 **R2.2 Réponse du Dr Ren Orans :**

30 **HQT is aware of only one other jurisdiction, British Columbia,**  
31 **in which discounting is subject to an explicit, transparent,**  
32 **formula. For every other jurisdiction studied, including the**  
33 **Midwest ISO, the stated discount policy is based on the FERC**  
34 **pro forma tariff. The following paragraph from the Midwest**  
35 **ISO FERC Electric Tariff is typical:**

36 **“Discounts: Three principal requirements apply to discounts**  
37 **for transmission service as follows: (1) any offer of a discount**

1           made by the Transmission Provider must be announced to  
2           Eligible Customers solely by posting on the OASIS, (2) any  
3           customer-initiated requests for discounts (including requests  
4           for use by one’s wholesale merchant or an affiliate’s use) must  
5           occur solely by posting on the OASIS, and (3) once a discount  
6           is negotiated, details must be immediately posted on the  
7           OASIS. For any discount agreed upon for service on a path,  
8           from Point(s) of Receipt to Point(s) of Delivery, the  
9           Transmission Provider must offer the same discounted  
10          transmission service rate for the same time period to all  
11          Eligible Customers on all unconstrained transmission paths  
12          that go to the same Point(s) of Delivery on the Transmission  
13          System.”

14                   (Midwest ISO, FERC Electric Tariff, Third Revised Volume No. 1,  
15                   Second Revised Sheet No. 989 and repeated several other places.  
16                   [http://www.midwestmarket.org/publish/Document/2b8a32\\_103ef711180\\_-  
17                   75c40a48324a/Schedules.pdf?action=download&\\_property=Attachment](http://www.midwestmarket.org/publish/Document/2b8a32_103ef711180_-75c40a48324a/Schedules.pdf?action=download&_property=Attachment))

18           **This does not mean that posted rates for transmission service**  
19           **are always uniform; on the contrary, many transmission**  
20           **providers have PTP rates that vary by time of day, as can be**  
21           **seen in the following table of Canadian transmission**  
22           **providers:**

1

Rate	BC	Saskatchewan	Manitoba	New Brunswick	Nova Scotia
Monthly firm	$\$/kW\text{-year} \div 12$ months	$\$/kW\text{-year} \div 12$ months	$\$/kW\text{-year} \div 12$ months	$\$/kW\text{-year} \div 12$ months	$\$/kW\text{-year} \div 12$ months
Monthly non-firm	Capped at firm rate	Capped at firm rate	Capped at firm rate	Capped at firm rate	Capped at firm rates
Weekly firm	$\$/kW\text{-year} \div 52$ weeks	$\$/kW\text{-year} \div 52$ weeks	$\$/kW\text{-year} \div 52$ weeks	$\$/kW\text{-year} \div 52$ weeks	$\$/kW\text{-year} \div 52$ weeks
Weekly non-firm	Capped at firm rate	Capped at firm rate	Capped at firm rate	Capped at firm rate	Capped at firm rates
Daily firm (on-peak)	Formula, capped at daily firm rate equivalent	$\$/kW\text{-week} \div 5$ days	$\$/kW\text{-week} \div 5$ days	$\$/kW\text{-week} \div 5$ days	$\$/kW\text{-week} \div 5$ days
Daily firm (off-peak)	Formula, capped at daily firm rate equivalent	Not offered	$\$/kW\text{-week} \div 7$ days	$\$/kW\text{-week} \div 7$ days	$\$/kW\text{-week} \div 7$ days
Daily non-firm	Formula, capped at daily firm rate equivalent	Capped at firm rates	Capped at firm rates	Capped at firm rates	Capped at firm rates
Hourly firm (on-peak)	Formula, capped at hourly firm rate equivalent	Not offered	Not offered	Not offered	Not offered
Hourly firm (off-peak)	Formula, capped at hourly firm rate equivalent	Not offered	Not offered	Not offered	Not offered
Hourly non-firm	Formula, capped at hourly firm rate equivalent	Capped at daily rate / 16 hours	On-peak: Capped at daily rate / 16 hours; Off-peak: Capped at daily rate / 24 hours	On-peak: Capped at daily rate / 16 hours; Off-peak: Capped at daily rate / 24 hours	On-peak: Capped at daily rate / 16 hours; Off-peak: Capped at daily rate / 24 hours

2

1           **The Midwest ISO has a similar rate design that features lower**  
2           **rates during off-peak hours, as illustrated by its posted rates:**

- 3           •       **Annual \$9.36 kW/Year**
- 4           •       **Monthly \$0.78 kW/Month**
- 5           •       **Weekly \$0.18 kW/Week**
- 6           •       **On-Peak Daily \$0.036 kW/Day**
- 7           •       **On-Peak Hourly \$2.25 MWh**
- 8           •       **Off-Peak Daily \$0.026 kW/Day**
- 9           •       **Off-Peak Hourly \$1.071 MWh**

10           **The term “discount” refers to reductions from the posted rates**  
11           **that aim to increase revenue or throughput during times when**  
12           **the posted rates are too high, blocking electricity trading**  
13           **transactions that could have occurred at lower transmission**  
14           **rates.**

### 15   **3. Market Price Comparisons**

16   References: R-3549-2004 – Phase 2, HQT-2, Document 3, page 12, (Tables  
17   4 & 5)

18   Preamble: Tables 4 and 5 present the result of HQT’s analysis which “was  
19   conducted by comparing the market price in Ontario with that of New York and  
20   New England, the systems with which these customers conducted 75% of  
21   their hourly transactions and for which the data concerning the price of the  
22   hourly market are easily accessible.” The tables present only a single set of  
23   values (reservations, Ontario price, New England/ New York price, and price  
24   differential).

25   3.1   Please confirm that the heading of the fifth column in Table 5 should  
26       be “New York Price” rather than “New England Price”.

27   **R3.1       Tel qu’indiqué dans la pièce HQT-2, Document 3, page 16,**  
28       **Tableau 5, le titre de la cinquième colonne est « Prix New York**  
29       **(\$CAN/MW/h) ».**

1 3.2 Please confirm that all reservation hours in each month shown in the  
2 tables did not occur during the same hour within the month and that  
3 each hour within each month during which reservations occurred  
4 would have had different prices and different price differentials.  
5 Hence, please confirm that the differentials shown in the tables are  
6 the average differentials in each month. Please explain how the  
7 averages were calculated.

8 **R3.2 Le Transporteur confirme que les réservations en question**  
9 **n'ont pas été réalisées à la même heure. Les moyennes ont été**  
10 **établies comme suit :**

- 11 • **Établissement de l'écart des prix des marchés pour chaque**  
12 **heure où il y avait une transaction et où l'écart était positif.**  
13 • **Calcul de la moyenne mensuelle des écarts ainsi calculés.**

14 3.3 Please provide for each month in each of Table 4 and Table 5 a  
15 breakdown showing, for each hour during the month during which  
16 there were reservations:

- 17 • the number of reservations (total of MW for the hour),  
18  
19 • the Ontario market price in that hour,  
20  
21 • the New England (or New York) market price in the same  
22 hour, and  
23  
24 • the price differential.

25 **R3.3 Réponse à venir.**

1 **4. Non-Discounted Transactions and No-Reservation Discounted**  
2 **Hours**

3 References: R-3549-2004 – Phase 2, HQT-2, Document 3, page 10 - 12,  
4 Tables 3, 4, 5

5 Preamble: Table 3 shows that 84% of hourly ST PTP service reservations  
6 were during non-discounted (Period 1) hours. Furthermore, Tables 4 and 5 do  
7 not take into account the price differentials for hours during which there were  
8 no reservations, even with the additional information requested above.

9 4.1 Please provide tables similar to those requested in the preceding  
10 information request that show for each Period 1 hour the Ontario-New  
11 England and Ontario-New York price differentials. Also please  
12 provide a distribution similar to Figure 2 in the evidence of Ren Orans  
13 (HQT-4, Document 3) that plots the differential against the cumulative  
14 number of Period 1 hours.

15 **R4.1 Le bilan de la politique transitoire de rabais présenté à la pièce**  
16 **HQT-2, Document 2, correspond aux Périodes 2 et 3 du**  
17 **15 janvier 2003 au 14 janvier 2004, où le Transporteur a**  
18 **appliqué un rabais forfaitaire de 25 % au service de transport**  
19 **de point à point horaire, conformément à la décision D-2003-02**  
20 **de la Régie. Comme aucun rabais n'était appliqué aux heures**  
21 **de la Période 1, le Transporteur n'a pas effectué d'analyse de**  
22 **celle-ci.**

23 4.2 Please provide tables similar to those requested in the preceding  
24 information request that show for each Period 2 and 3 hour during  
25 which there were no reservations the Ontario-New England and  
26 Ontario-New York price differentials. Also please provide a  
27 distribution similar to Figure 2 in the evidence of Ren Orans (HQT-4,  
28 Document 3) that plots the differential against the cumulative number  
29 of off-peak hours for which there were no reservations.

30 **R4.2 Réponse à venir.**

1 **5. Competitive Alternatives to HQT's Discounted Rates**

2 References: R-3549-2004 – Phase 2, HQT-2, Document 3, general  
3 Preamble: The Evaluation does not address the extent to which HQT's  
4 undiscounted and discounted rates are competitive with alternative  
5 transmission paths between Ontario and New England and Ontario and New  
6 York.

7 5.1 Please confirm that any party interested in taking advantage of  
8 arbitrage opportunities created by the price differentials between the  
9 Ontario and New England and the Ontario and New York markets will  
10 seek to minimize its transmission costs by utilizing the path that has  
11 available capacity with the lowest total transmission cost (taking into  
12 account losses as well as transmission rates).

13 **R5.1 Le Transporteur ne peut présumer des intentions des**  
14 **différents participants du marché, mais sous réserve de la**  
15 **disponibilité des capacités de transport sur les autres réseaux,**  
16 **il croit qu'il s'agirait là d'un comportement rationnel.**

17 5.2 Please provide details of the number of hours during which HQT had  
18 spare capacity, by period (Period 1, 2 and 3), during the year when  
19 the Provisional Discount Policy was in place.

20 **R5.2 Réponse à venir.**

21 5.3 For the year when the Provisional Discount Policy was in place,  
22 please provide a table summarizing by Period (Period 1, 2 and 3) for  
23 Ontario to New England transactions:

- 24
- 25 • The relevant HQT rate,
  - 26 • The least cost transmission alternative,
  - 27 • The differential, and
  - 28 • The number of hours during which the prices and  
differential applied.

29 **R5.3 Pour toute cette période, le tarif de transport pour le service de**  
30 **transport de point à point non ferme horaire était de**  
31 **8,33 \$/MW/h pour la période 1 (en pointe) et de 6,25 \$/MW/h**  
32 **pour les périodes 2 et 3 (hors pointe). Les autres données**  
33 **demandées sont rendues publiques par l'Independent**

1                   **Electricity System Operator (IESO) pour l'Ontario et par le ISO**  
2                   **New England (ISO-NE) pour la Nouvelle Angleterre.**

3   5.4 For the year when the Provisional Discount Policy was in place,  
4       please provide a table summarizing by Period (Period 1, 2 and 3) for  
5       Ontario to New York transactions:

- 6                   • The relevant HQT rate,  
7                   • The least cost transmission alternative,  
8                   • The differential, and  
9                   • The number of hours during which the prices and  
10                  differential applied.

11 **R5.4        Pour toute cette période, le tarif de transport pour le service de**  
12 **transport de point à point non ferme horaire était de**  
13 **8,33 \$/MW/h pour la période 1 (en pointe) et de 6,25 \$/MW/h**  
14 **pour les périodes 2 et 3 (hors pointe). Les autres données**  
15 **demandées sont rendues publiques par l'Independent**  
16 **Electricity System Operator (IESO) pour l'Ontario et par le New**  
17 **York Independent System Operator (NYISO) pour l'État de New**  
18 **York.**

19 **6. Objectives of transmission tariff design**

20 References: R-3549-2004 – Phase 2, HQT-4, Document 3, page 9  
21                   R-3401-98, HQT-10, Document 4, page 3

22 Preamble: Dr. Orans has filed evidence addressing the issue of transmission  
23 rate design in two proceedings before the Régie de l'énergie as cited above.  
24 The lists of objectives of transmission tariff design appear to match except:

- 25                   • the sixth objective in the current evidence (“to facilitate trading”) did not  
26                   appear in the R-3401-98 evidence, and  
27                   • the R-3401-98 evidence included “be consistent with the industry  
28                   standard” as an objective.

29 6.1 Please confirm that “be consistent with industry standards” continues  
30       to be a relevant objective, as is implied by the inclusion of section 7  
31       (Comparison: HQT’s Proposed OATT vs. Industry Standard Design)  
32       in the current evidence.

1 **R6.1 Réponse du Dr Ren Orans :**

2 **Yes, I continue to believe that adopting tariff and rate designs**  
3 **that are consistent with the industry standards minimize**  
4 **transaction costs and facilitate use, and are therefore an**  
5 **important element of transmission rate design.**

6 6.2 Please provide details of the market developments (i) in Quebec and  
7 (ii) in neighbouring jurisdictions, that have made it appropriate to add  
8 “to facilitate trading” as one of “the major objectives of a transmission  
9 tariff” when “considering transmission design choices faced by HQT”.

10 **R6.2 Réponse du Dr Ren Orans :**

11 **Many changes have occurred since HQT last updated its**  
12 **transmission rate design in 2000. The most important change**  
13 **has been the development of organized, hourly markets in**  
14 **many of HQT's neighbouring jurisdictions (e.g., Ontario, New**  
15 **England and New York, as well as more distant jurisdiction**  
16 **such as PJM and the Midwest ISO). As a consequence of this**  
17 **development, short-term transmission service, hourly service**  
18 **in particular, has increased in prominence relative to long-term**  
19 **service. This hourly trade provides economic benefits both to**  
20 **domestic ratepayers and to power suppliers that sell into**  
21 **these hourly markets. One of HQT's rate design goals is to**  
22 **increase the economic benefit that derives from this activity.**

23 **7. Promoting economic efficiency**

24 Reference: R-3549-2004 – Phase 2, HQT-4, Document 3, page 9  
25 R-3401-98, HQT-10, Document 4, pages 16-17

26 Preamble: An objective of transmission tariff design that is identified in the  
27 current evidence of Dr. Orans is “to promote efficiency”. Q19 in Dr. Orans  
28 earlier evidence is: “How does the tariff meet the last goal of promoting  
29 economic efficiency.” Dr. Orans response focuses on the efficiency benefits,  
30 under specific circumstances, of HQT being able to offer discounts.

1 In the current evidence, Dr. Orans states: “I maintain that the Régie should  
2 discontinue its mandatory discount policy because a non-discretionary non-  
3 firm rate discount only leads to service substitution and revenue loss, without  
4 improving HQT’s capacity utilization.” (emphasis added)

5 7.1 Please confirm that under the circumstances referred to in the R-  
6 3401-98 evidence the potential benefits would still be achievable  
7 within the Quebec market.

8 **R7.1 Réponse du Dr Ren Orans :**

9 **The circumstances of the current Application are substantially**  
10 **different from those during my previous testimony. At that**  
11 **time, HQT was proposing a short-term rate design based on**  
12 **the AEP method, in which the hourly transmission rate for**  
13 **peak hours is equal to the annual rate divided by 4,160, while**  
14 **the hourly transmission rate for off-peak hours is equal to the**  
15 **annual rate divided by 8,760. This would have resulted in a**  
16 **relatively high hourly rate of about \$17.50/MWh during peak**  
17 **hours. In HQT’s first rate design hearing, I testified that**  
18 **economic efficiency gains would result from HQT offering**  
19 **discounts from this high rate during hours with low trading**  
20 **margin.**

21 **However, the Regie rejected this rate design, and HQT’s hourly**  
22 **rate for both peak and off-peak hours is now equal to the**  
23 **annual rate divided by 8,760. This lower rate of \$8.33/MWh**  
24 **blocks trades during only a very few hours, as demonstrated**  
25 **by both HQT and my own analysis. Hence, the economic**  
26 **gains to be realized from discounting from HQT’s current**  
27 **hourly rate are considerably less than they would have been**  
28 **under HQT’s previous proposed rate design.**

1 7.2 Please confirm that a discretionary discount policy could be expected  
2 to have a greater benefit in terms of improving HQT's capacity  
3 utilization, with less revenue loss.

4 **R7.2 Réponse du Dr Ren Orans :**

5 **Yes, I continue to believe that an entirely discretionary**  
6 **discount policy consistent with the FERC pro forma tariff**  
7 **would provide the greatest economic benefit with the least**  
8 **revenue loss, because the economic circumstances that can**  
9 **affect the value of HQT's short-term service are too complex to**  
10 **be accurately captured in a simple formula. However, absent**  
11 **having this broad discretion, HQT's proposed index should**  
12 **provide incremental improvements during times when**  
13 **discounting is necessary to facilitate use.**

14 7.3 Please provide examples of discretionary discount policies utilized  
15 successfully in other jurisdictions.

16 **R7.3 Réponse du Dr Ren Orans :**

17 **Discretionary discount policies as a rule are not based on a**  
18 **transparent methodology that is fully reflected in a posted**  
19 **tariff or business practice. A successful discretionary**  
20 **discount relies on the judgement and experience of the senior**  
21 **staff responsible for determining the discount.**

22 7.4 Please confirm that a "flexible" discount policy that is similar to a  
23 discretionary discount policy but is fully transparent and is  
24 constrained by well-defined rules as to the circumstances in which a  
25 discount is available and the quantum of the discount under various  
26 circumstances could be expected to have benefits similar to those  
27 that are achievable with a discretionary discount policy.

28 **R7.4 Réponse du Dr Ren Orans :**

29 **I continue to believe that a truly discretionary discounting**  
30 **policy, that is, one that is unencumbered by rules and**

1           **formulae that restrict the timing and magnitude of the**  
2           **discount, will provide the most benefits with the least revenue**  
3           **loss. However I also agree that a policy that offered flexibility**  
4           **within a defined set of boundaries would yield more benefit**  
5           **with less revenue loss than a fixed or formula-based discount.**

6   **8. Competitive generation market in Québec**

7   Reference: R-3549-2004 – Phase 2, HQT-4, Document 3, page 11, lines 1-2  
8   Preamble: Dr. Orans states that “Pool designs are used in association with  
9   ISOs and RTO’s in Alberta, Ontario, California, Texas, Midwest, PJM, New  
10   York, and New England. Without exception, these jurisdictions have  
11   competitive generation markets, which do not exist in Québec and other open  
12   access jurisdictions.”

13   8.1 Please confirm that a generation market can be competitive, even if it  
14       has an open access design, rather than a pool design.

15   **R8.1 Réponse du Dr Ren Orans :**

16           **It is possible to have a competitive generation market under an**  
17           **open access design. However, a jurisdiction with open access**  
18           **tariffs is typically served by one or more integrated utilities**  
19           **whose primary goal is to reliably serve the native loads. Even**  
20           **though wholesale trading occurs in an Open Access**  
21           **jurisdiction, it is at a much smaller scale than in a power pool,**  
22           **where load serving entities, which now own little or no**  
23           **generation, must transact and procure extensively in the**  
24           **wholesale market to meet their load obligations.**

25   8.2 Please identify any jurisdictions in North America that do not have  
26       pool designs but have at least some degree of competition in the  
27       generation market.

28   **R8.2 Réponse du Dr Ren Orans :**

29           **The Pacific Northwest, including British Columbia, is perhaps**  
30           **the best example of a relatively competitive generation market**

1           **based predominantly on bilateral trading under Open Access**  
2           **transmission rate designs. Other examples include the desert**  
3           **Southwest and portions of the MAPP, MAIN and SPP regions.**

4   8.3 Please confirm that the Québec generation market already has some  
5   degree of competition and could be more competitive in the future,  
6   given that HQ Distribution utilizes a Request for Proposal process in  
7   contracting for new supply, and has recently been authorized by the  
8   Regie to contract for short term power either bilaterally without prior  
9   approval or by purchasing power on an energy exchange.

10 **R8.3       Réponse du Dr Ren Orans :**

11           **The Quebec generation market has a degree of competition**  
12           **now and has the potential to become more competitive in the**  
13           **future.**

14   8.4 Please confirm that the development of a competitive generation  
15   market in Québec is consistent with the policy of the Québec  
16   Government.

17 **R8.4       Le Transporteur ne peut présumer des intentions du**  
18           **gouvernement québécois à cet égard.**

19 **9. Facilitate trading**

20 Reference: R-3549-2004 – Phase 2, HQT-4, Document 3, page 12

21 Preamble: Dr. Orans states that HQT's OATT open access design "promotes  
22 energy trading by minimizing differences in tariff rules, access terms and  
23 conditions, and scheduling systems between a local jurisdiction and its  
24 neighbors".

25 9.1 Please list all neighbouring jurisdictions that have (i) open access  
26 designs and (ii) pool designs, as defined in the evidence.

27 **R9.1       Réponse du Dr Ren Orans :**

28           **Québec's immediate neighbours include Ontario (pool design),**  
29           **New York (pool design), New England (pool design) and New**  
30           **Brunswick (open access design). However, exports, imports**  
31           **and through transactions continue to be scheduled using**

1                   **open-access-type, short-term PTP service, even among the**  
2                   **pool designs.**

3    9.2   For each neighbouring jurisdiction, please provide a comparison of (i)  
4           LT PTP rate design and rates, (ii) ST PTP rate design and rates, (iii)  
5           the rate design applicable to wheeling out and through, and (iv) the  
6           discount policy used.

7    **R9.2        Réponse à venir.**

8    **10. Discount Policy rate comparison**

9    Reference:   R-3549-2004 – Phase 2, HQT-4, Document 3, pages 26 - 30,  
10   Section 4

11   Preamble: Dr. Orans refers to HQT's "Discounting Final Report", noting at  
12   page 26, lines 9-11 that "HQT's full non-discounted short-term point-to-point  
13   rates were reasonably low already and were not inhibiting substantial levels of  
14   trading and transmission use during the majority of the hours during the year."

15   10.1 Does the assertion that the rates are "reasonably low already" rely  
16       only on the comparison to the market price differentials that are  
17       contained in the HQT Report and in section 4.3 of Dr. Orans  
18       evidence. Please provide any comparisons with rates for similar  
19       services in other jurisdictions that were also relied on in making this  
20       statement.

21   **R10.1       Réponse à venir.**

22   10.2 Are HQT's non-discounted ST PTP rates "reasonably low already" in  
23       comparison to the rates for similar services in neighbouring  
24       jurisdictions that serve as competitive alternatives for some  
25       customers for the transmission of power from Ontario to New  
26       England and to New York? Please provide rate comparisons to  
27       support the response.

28   **R10.2       Réponse à venir.**

29   **11. Percent of days blocked by short term transmission service rates**

30   Reference:   R-3549-2004 – Phase 2, HQT-4, Document 3, page 28 - 30

31   Preamble: Figure 2 in the evidence of Dr. Orans shows the percent of days in  
32   which trading is fully blocked by the short term hourly transmission service  
33   rates by comparing the highest on-peak hour price to the lowest off-peak hour  
34   price within a day.

1 11.1 Please confirm that Dr. Orans' analysis is only relevant for an entity  
2 such as HQ Production that has storage capabilities so that it can  
3 purchase power in one market during off-peak hours and sell it in  
4 another market during on-peak hours.

5 **R11.1 Réponse du Dr Ren Orans :**

6 **Yes, my analysis is primarily relevant to HQ Production, which**  
7 **accounts for approximately 80% of total short-term**  
8 **transmission use on the HQT system; although Ontario's**  
9 **relatively low export fee means the analysis could also apply**  
10 **to entities in that jurisdiction that also have storage capability.**  
11 **My analysis supplements HQT's earlier analysis that valued**  
12 **HQT transmission based on the difference between the price**  
13 **of energy purchased in Ontario and delivered in either New**  
14 **York or New England (HQT-2, Document 3).**

15 11.2 Please confirm that when trading is not blocked based on this  
16 analysis, the HQT system will be utilized for wheeling only if HQT  
17 offers the lowest cost alternative for wheeling power between the  
18 neighbouring jurisdictions and the discount is sufficient to allow  
19 transmission customers to manage any other risks associated with  
20 the wheeling transaction.

21 **R11.2 Réponse du Dr Ren Orans :**

22 **Yes, it is reasonable to assume, for customers other than HQ**  
23 **Production, that the HQT system will be utilized only to the**  
24 **extent that HQT's ST PTP rates are competitive with other**  
25 **options available to potential shippers.**

26 11.3 Please confirm that utilization of the HQT system for trading could  
27 result in improved capacity utilization if ST PTP service rates were  
28 based on competitive considerations rather than maintaining a policy  
29 of either fixed mandatory discounts or no discounts.

1    **R11.3    Réponse du Dr Ren Orans :**

2                    **Yes, I continue to believe that a discounting policy that allows**  
3                    **flexibility to consider competitive conditions in neighbouring**  
4                    **jurisdictions, in addition to a number of other factors, would**  
5                    **improve utilization relative to either no discounts or fixed**  
6                    **mandatory discounts, while reducing revenue loss.**

7    **12. BC Hydro Short-term rate design**

8    Reference: R-3549-2004 – Phase 2, HQT-4, Document 3, page 38 – 40,  
9    section 7.2.3

10   Preamble: The evidence of Dr. Orans discusses BCTC's proposed ST-PTP  
11   rate noting that it "is set at the minimum of a) the full non-discounted hourly  
12   rate; or, b) 1/4 of an estimated value of transmission between Alberta and the  
13   California Oregon border (COB)." (page 39, lines 7 – 9)

14   The evidence also states that: "HQT's Discounting Final Report indicates a  
15   \$15/MW-h transmission value based on the average price difference between  
16   markets outside the province." (page 39, line 23 to page 40, line 1)

17   12.1 Please explain the methodology used by BCTC to determine the  
18   "value of transmission between Alberta and the California Oregon  
19   border (COB)."

20   **R12.1    Réponse du Dr Ren Orans :**

21                    **The ST PTP formula under the WTS calculated a rate equal to**  
22                    **one quarter of the gains from trade, where the gain from trade**  
23                    **was estimated as the difference between the estimated cost of**  
24                    **electricity in Alberta and posted prices at the California-**  
25                    **Oregon Border. The cost of electricity in Alberta was estimated**  
26                    **using the cost of natural gas at Encana's Calgary Hub**  
27                    **converted to electricity (Exhibit B1-1, pp. 60-61)." (BCUC's**  
28                    **June 20, 2005 Decision, p.63).**

29                    **The formula divides the hypothetical gain from trade equally**  
30                    **among a buyer and a seller of a power transaction and the two**

1            **transmission providers whose services are used by the**  
2            **transaction. BCTC’s new formula which has been approved by**  
3            **the BCUC but not yet implemented, substitutes the index price**  
4            **at Mid-Columbia for the index price at COB, and the Alberta**  
5            **Electric System Operator hourly electricity price for the gas-**  
6            **based proxy.**

7    12.2 Please explain the method used to derive the \$15/MW-h average  
8        from data in HQT’s Discounting Final Report. Does it take into  
9        account the price differential in periods when there were no  
10       reservations and is it weighted on the basis of the reservations with  
11       discounts in the relevant hours?

12    **R12.2    La valeur de 15 \$/MW/h est établie à partir des écarts de prix**  
13        **présentés à la pièce HQT-2, Document 3, page 15, Tableau 4 et**  
14        **page 16, Tableau 5. Il en ressort que l'écart est généralement**  
15        **d'au moins 15 \$/MW/h.**

16        **Tel qu'il appert des tableaux précités, l'établissement des**  
17        **écarts de prix porte sur les transactions où il y avait un rabais**  
18        **dans le cadre de la politique transitoire de rabais. Ces écarts**  
19        **de prix ont été pondérés en fonction des réservations avec**  
20        **rabais aux heures correspondantes (pour que les prix des**  
21        **réservations plus élevées prennent plus de poids que les prix**  
22        **des réservations moindres, permettant ainsi une meilleure**  
23        **comparaison). Voir également réponse à la question 3.2.**