



*Demande de modification de la politique
d'ajouts au réseau de transport*

Demande R-3888-2014

**Summary of Expert Testimony
of Seabron Adamson**

Prepared on behalf of NLH



Régie de l'énergie

February 2015

Key Issues raised by the Régie which I will discuss

- Cost allocation of network upgrades between users
- Depreciation/length of term assumptions for Maximum Allowance
- "Transitional" and "pooling" of follow-up of commitments for PTP customers



Régie de l'énergie

DOSSIER R.3888.2014

DÉPOSÉE EN AUDIENCE

Date 09/02/2015

Pièces n° C-0044-0031

Objectives for Network Upgrade Policies

1. Economic efficiency
2. Non-discrimination
3. No undue cost-shifting
4. Transparency

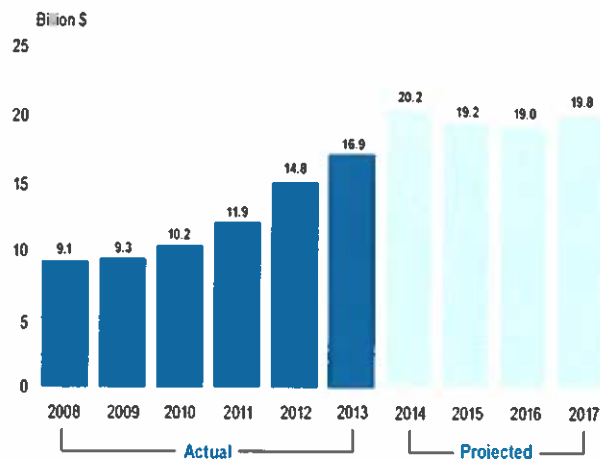
The Evolution of the FERC "Higher of" Principle

- "Higher of" was a starting point in FERC transmission policy – Régie should take into consideration later policy developments regarding critical transmission cost allocation issues
- HQT OATT reflects the "higher of" mechanism from the 1994 FERC Transmission Pricing Policy Statement (later reflected in Order 888/889 and the *pro forma* tariff)
- Order 890 (2007) made additional changes to the *pro forma* OATT to address the potential for undue discrimination
- Order 1000 (2011) – Established new principles on cost allocation and investment for certain transmission projects

What economic lessons can Québec learn from FERC Order 1000?

- Order 890 rules and the *pro forma* OATT are insufficient to achieve goals of non-discrimination, open access and efficiency
- Transmission grids are integrated systems and must be planned to meet the needs of all customers in a coherent and consistent way including neighboring systems
- Traditional cost allocation mechanisms (such as "requester pays") are economically inefficient and should not be applied for all transmission projects
- Sound economics and US regulatory precedent requires major transmission costs to be allocated "roughly commensurate" with benefits

Has Order 1000 impacted the level of transmission investment?



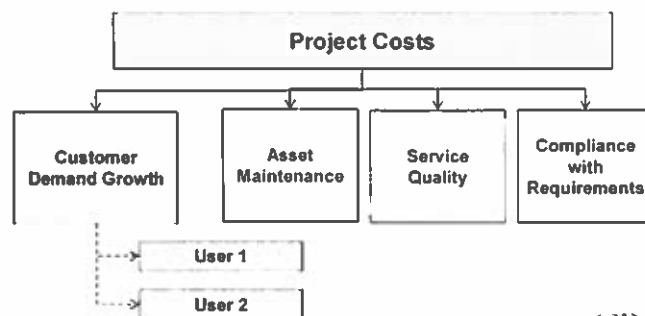
Source: Edison Electric Institute, 2014.

When is economic cost allocation difficult and important?

- Cost allocation is hard when there are:
 - Economies of scale
 - Economies of scope
 - "Lumpy" investments
- The economics of integrated transmission systems typically show all of these effects

Cost Allocation Issues

- HQT has identified four categories for capital expenditure projects
- Network upgrades covered under network upgrades policy are limited to the "customer demand growth" category (*HQT Doc 1 at p. 14*)
- Régie questions about cost sharing among users/beneficiaries concerns the demand growth category – but category interactions are important



Absence of Network Upgrades Cost-Benefit Allocation Can Create Free Rider Problems

- Multiple users of the transmission system may benefit from a network upgrades project
- If costs are allocated to a single party requesting service then it may have insufficient incentives to go forward and if it proceeds, other users gain a benefit without paying: a classic “free rider” problem
- Sharing of costs based on benefits to users helps eliminate this problem
- A cost-benefit allocation methodology should be incorporated into network upgrades policy for major projects
- But no allocation of costs to users who do not benefit – customer protection principle

“Waiting List” / “Requester Pays” Principle Creates Similar Free Rider Problems

- HQT employs a “Requester Pays” method in which the first to request an upgrade requiring a new investment is significantly allocated the costs
- As costs are not separable completely, this creates negative incentives to act
- HQT’s IR responses to the Régie illustrate this effect, where the joint technical solution has a total cost of \$300 million (HQT-4, Doc 1, *Response* 14.6)
- Each customer has the incentive to wait for others to go first

Costs Paid	Customer 1 goes first	Customer 2 goes first
Customer 1 pays	200	150
Customer 2 pays	100	150
Total payment	300	300

- Benefits-based allocation helps eliminate this problem

Depreciation Assumptions in Maximum Allowance

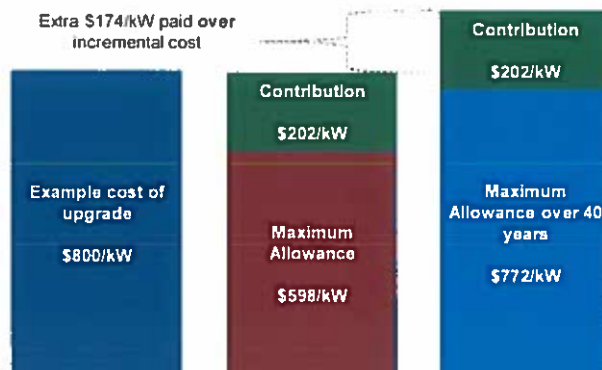
- HQT policy limits the depreciation assumption to 20 years – even for longer-lived assets (common accounting life of 40 years) (HQT 2 Doc 1 at p 19)
- Maximum Allowance calculation recognizes regulated transmission revenues for new Point-to-Point service for only up to 20 years – even if customer will sign a longer-term contract limiting HQT's risk exposure
- Continuing this policy has the following effects
 - Maximum Allowance NPV calculation does not reflect all of the contractually obligated payments of PTP customer
 - Lower the Maximum Allowance for these customers and hence raise required Customer Contributions for new long-term PTP service
 - Create undue discrimination and cost shifting against PTP customers
- The network upgrade policy should allow depreciation over more than 20 years in calculating Maximum Allowance for PTP contracts with terms > 20 years.

Year assumption	Max. Allowance (\$/kW)
20 Years	598
40 Years	772

Source: HQT 2 Doc 1 p 20

CRA

"Conservatism" versus true recognition of revenues and costs



- Instead of the incremental cost of \$800/kW under the "higher of" policy, the customer with a 40 year service agreement pays at least \$974/kW
- How is this related to Transmission Provider costs and revenues?

CRA

Treatment of follow-ups – three different periods to be considered

Existing – 12.A.2.(i) test – This is a one-off test “when the Connection Agreement is executed” under which the **present value of payments** under “applicable Service Agreements **at least equals costs** incurred by the Transmission Provider to ensure connection of the generating station”...
(highlights mine)

HQT transitional proposal – Annual test comparing all Transmission Service Agreements revenues (regardless of number of megawatts or relationship between these TSAs and new generation projections) against levelized costs, with all surpluses being used to offset future commitments – “pay down the mortgage”

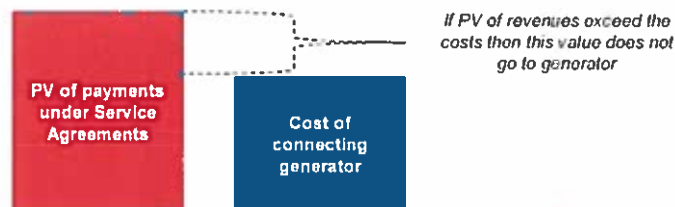
HQT permanent proposal for final treatment of follow-ups– New agreements will explicitly tie total annual revenues from all of a customers' PTP service agreements to annual levelized costs.

12

CRA

The economic mechanism of the existing 12.A.2.(i) test

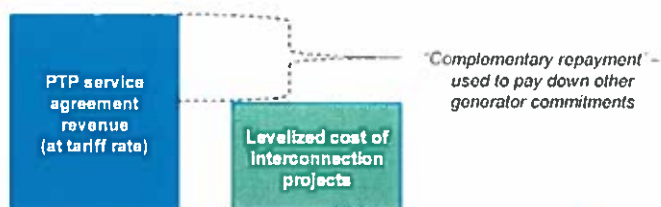
- Done once – meet the test and then you are done
- Test for revenue sufficiency – must have at least enough revenue but no value if generator exceeds the test
- Aggregate revenues from all TSA revenue can be included – regardless of whether it has anything to do with the generator interconnection



CRA

Annual Follow-Up “Transitional” Proposal for HQP

- HQP as the sole major generator benefits from OATT Section 12A.2 (i)
- There were marginal costs for interconnection – but was there any marginal revenues?
- When the incremental cost commitment is less than the PTP rate * capacity, this can be applied to other transmission commitments as a “complementary repayment” – lowering other HQP costs
- “Complementary Repayments “ in Appendix 2 over \$800 million would benefit HQP – and go on for many years?



CRA

Effects of HQT “complementary repayment” transitional proposal

- This is only “administrative” in the sense that the existing projects are there – costs are sunk and the one-off test has been met. But the \$\$\$ are real
- Absent “complementary repayments” – these PTP Transmission Service Agreement revenue “surpluses” would go to meet total revenue requirement – lower costs for native load and other tariff customers
- Pooling of PTP revenues against costs by customer is also problematic
- Hence this is:
 - Discriminatory against other transmission users
 - Unfair to native load customers
 - Creates preferential treatment allowing HQP to secure new transmission at minimum cost and block other users
- Other incentives exist for customers to enter into long-term PTP agreements

CRA

Recommendations

- Adopt a more open transmission planning process using clear specific criteria to identify projects and for allocating project costs
- Eliminate inefficient "requester pays" policy and adopt cost-benefit allocation policy for major transmission projects
- Develop a transparent benefits-based cost allocation methodology
- Eliminate the strict chronological "waiting list" for cost allocation for major transmission projects
- Adopt enhanced information sharing policies to assist customers in proposing and evaluating transmission service requests and related network upgrades
- Permit Maximum Allowance based on full term of transmission service agreement, not limited to 20 years
- Reject/modify the transitional mechanism for annual follow-ups for HQP - "Complementary repayment" amounts should be used to contribute to costs of the total system and reduce costs to all users including native load
- Reject revenue pooling mechanism for annual follow-up policy

