Q. **Volume 1 (1st Revision), Chapter 6: Supplemental Evidence**

Please provide a detailed illustrative example of how the Off-Island Purchases Deferral Account is forecast to operate in conjunction with the operation of the RSP and Hydro's supply cost variance accounts for the 2017 forecast, the 2018 and 2019 test years and 2020 forecast. The example should include Hydro's latest input estimates. (Volume I (1st Revision), Chapter 6: Supplemental Evidence, Page 6.3, Line 4, et. seq.)

A. Please refer to Hydro's response to NP-NLH-115 for a detailed illustration of the operation of the Off-Island Purchases Deferral Account. Activity related to off-island purchases will impact only the balance in the Holyrood Conversion Rate Deferral Account. The operation of the Off-Island Purchases Deferral Account in conjunction with Hydro's existing supply cost deferral accounts is discussed below.

<u>Isolated Systems Supply Cost Variance Deferral</u>

The Isolated Systems Supply Cost Variance Deferral only captures variances in the price of supplying customers on Hydro's isolated systems. All of Hydro's other supply cost deferral accounts deal with variances from supply costs on the Island Interconnected System. As such, there is no risk of duplication between the Isolated Systems Supply Cost Variance Deferral and any other deferral account.

<u>Energy Supply Cost Variance Deferral</u>

The Energy Supply Cost Variance Deferral only applies to the sources specifically listed in the deferral account definition as approved in Order No. P.U. 22(2017).

These sources are:

- Holyrood Combustion Turbine;
- Hardwoods Gas Turbine;
- Stephenville Gas Turbine;
- St. Anthony Diesel Plant;
- Hawkes Bay Diesel Plant;
- Nalcor Exploits;
- Star Lake;
- Rattle Brook;
- CBPP Cogeneration;
- St. Lawrence wind; and
- Fermeuse wind.

Given that the approved deferral account definition does not include off-Island purchases as a supply source, there would be no related costs included in the Energy Supply Cost Variance Deferral Account (ESCVA).

The calculation of the balance in the ESCVA includes an amount to reflect Holyrood No. 6 fuel cost changes that result from supply variations from forecast for the supply sources listed above.[1] No change is required in the calculation of the ESCVA to reflect the use of off-island purchases.

To the extent that off-island purchases are used rather than Holyrood No. 6 fuel to deal with reduced availability of Exploits generation (for example), the cost of the additional Holyrood generation would continue be charged to the ESCVA. However,

[1] The savings are determined based on the approved Test Year No. 6 fuel cost.

the savings from the reduced Holyrood generation (based on the No. 6 fuel Test Year cost) would accumulate in the proposed Off-Island Purchases Deferral Account. In this example, the combination of the debit transfer to the ESCVA for additional fuel costs and the credit transfer to the Off-Island Purchases Deferral Account to reflect No. 6 fuel cost savings as a result of the increased use off-island purchases avoids duplication of costs between the two accounts.

Rate Stabilization Plan

The Rate Stabilization Plan (RSP) stabilizes Hydro's cost of No. 6 fuel as a result of three specific sources of variance: 1) hydraulic production variation; 2) fuel cost variations; and 3) load variations.

The amount of Holyrood generation using No. 6 fuel is directly impacted by the level of hydraulic production. Higher hydrology levels than normal will reduce Holyrood generation with the savings credited in the RSP based on the Test Year No. 6 fuel cost. Higher hydrology levels from normal also reduce the requirement for off-island purchases so no transaction in the Off-Island Purchases Deferral Account occurs unless there are additional off-island purchases.

If hydrology levels are lower than forecast, costs are charged to the RSP for recovery from customers based on the Test Year cost of No. 6 fuel. If off-island purchases are used to provide this energy rather than Holyrood, then the savings based on the cost difference between off-island purchases and Holyrood generation (based on the Test Year No. 6 fuel cost) is credited to the Off-Island Purchases Deferral Account. The combination of the debit transfer to the RSP for additional fuel costs as a result of lower hydraulic production and the credit transfer to the

Off-Island Purchases Deferral Account for fuel savings as a result of increased off-island purchases avoids duplication of costs between the two accounts.

The RSP also permits Hydro to defer variances in the purchase cost of No. 6 fuel when compared to the approved test year No. 6 fuel cost per barrel. For the 2015 Test Year, the Board approved a No. 6 fuel price of $64.41 per barrel. To the extent that the cost per barrel of Hydro's purchases of No. 6 fuel varies from the test year cost per barrel, the cost variance is recorded in the RSP with the impact passed to customers. Hydro has proposed that the Off-Island Purchases Deferral Account determine fuel savings based on the approved test year fuel cost.[2] Therefore, variances in the No. 6 fuel cost per barrel from the approved Test Year cost per barrel will not impact the balance in the Off-Island Purchases Deferral Account. This approach eliminates the possibility of duplications between the deferral account.

Finally, the RSP permits Hydro to defer the fuel cost and revenues associated with customer load variances from the approved test year. For example, if Hydro's customers load increases from Newfoundland Power, Hydro will incur additional No. 6 fuel expense and earn additional revenues. The RSP defers both the additional costs and revenues and passes the net balance on to customers. To the extent that changes in customer load allows the use of additional off-island purchases, the net change in fuel costs and revenues would continue to be charged to the RSP. However, any savings as a result of increased off-island purchases would flow to customers in the proposed Off-Island Purchases Deferral Account. Therefore, for RSP load variation there is also no duplication of cost recovery in the two deferral accounts.

[2] C in the proposed Off-Island Purchases Deferral is defined as "Test Year Cost of No. 6 fuel ($ per barrel).

Holyrood Conversion Rate Deferral Account

The Holyrood Conversion Rate Deferral Account permits Hydro to defer variances in the conversion rate of a barrel of oil consumed at the Holyrood Thermal Generating Station. To the extent that Hydro is successful in reducing generation at the Holyrood Thermal Generating Station through off-Island power purchases, this may have a negative effect on Hydro's No. 6 fuel conversion rate.

A key driver in the No. 6 fuel conversion rate is unit loading. A higher average unit loading at the Holyrood Thermal Generating Station will generally result in a greater efficiency factor and conversely, a lower average unit loading will generally result in a lower efficiency factor. To the extent that Hydro is able to achieve fuel savings by reducing the amount of generation at the Holyrood Thermal Generating Station, and thereby reduce the average unit loading, this will result in a lower fuel efficiency rate; the cost of which will be passed on to customers through the Holyrood Conversion Rate Deferral Account.

If material off-island purchases are achieved then Hydro would anticipate a balance owing from customers in the Holyrood Conversion Rate Deferral Account. Hydro was aware of this relationship when designing the Off-Island Purchases Deferral Account; however, Hydro determined that maintaining all costs associated with the No. 6 fuel conversion rate in a single deferral account would provide greater clarity and transparency with respect to these costs. Based on the off-island purchases presented in Hydro's response to NP-NLH-115, which estimates the balance of the Off-Island Purchases Deferral Account to be $143.3 M for the same period, Hydro

estimates balances owing from customers of $1.8 million for 2018, $2.3 million in 2019 and $3.4 million for 2020.[3]

[3] For each year, it is assumed that Hydro will incur the $500,000 supply cost related to the deadband that exists in the Holyrood Conversion Rate Deferral Account. The fuel conversion rates used in the derivations are 607 in 2018, 603 in 2019 and 583 in 2020.