

IN THE MATTER OF the Electrical
Power Control Act, 1994 and the Public Utilities Act

AND IN THE MATTER OF a General
Rate Application by Newfoundland and
Labrador Hydro for approvals of, under
Section 70 of the Act, changes in the
rates to be charged for the supply of
power and energy to Newfoundland
Power, Rural Customers and Industrial
Customers; and under Section 71 of
the Act, changes to the Rules and
Regulations applicable to the supply of
electricity to Rural Customers

INFORMATION REQUESTS FROM ISLAND INDUSTRIAL CUSTOMERS TO HYDRO, IC 320- 412 (RE-FORMATTED)

Cost of Service

IC-320 NLH Regarding the testimony of William Wells, Discussion Paper page 5
and 6 indicate the period covered by Hydro's "long-term financial
model"

IC-321 NLH Regarding the testimony of William Wells, Discussion Paper page 5
and 6 provide a copy of the output of Hydro's long-term financial
model.

IC-322 NLH Regarding the testimony of William Wells, Discussion Paper page 5
and 6 indicate all assumptions included in Hydro's long-term
financial model regarding annual increases in the overall level of
rates to regulated customers.

IC-323 NLH Regarding the testimony of William Wells, Discussion Paper page 5
and 6 provide a summary in the form of Roberts Schedule II,
Roberts Schedule VIII, Roberts Schedule IX and Roberts Schedule

X for each of the year 2004-2008 using each of the assumptions in Wells, Discussion Paper page 6.

IC-324 NLH Regarding the testimony of William Wells, Discussion Paper page 5 and 6 indicate whether Hydro's long-term financial model extends to the period 2010-2012, when Haynes page 37 indicates substantial new generation and/or transmission interconnection investment will be required. If yes, please provide the output of the long-term financial model for these years. Please ensure the output includes, at a minimum, forecast capital spending, forecast capital structure, financing and investing activities, return on equity, and forecast dividends

IC-325 NLH It appears that IC-16 removes the costs of Granite Canal, CBPP Co-Gen and Exploits River purchases, but ignores the costs of acquiring that quantity of energy from another source (i.e., Holyrood generation). Please update IC-16 to include all impacts on Holyrood fuel and O&M costs in 2004 had the lost energy from these three sources been made up from increased Holyrood production. Please indicate each revision, along with supporting calculations, from Exhibit RDG-1 to this updated IC-16 (i.e. what was the impact on rate base, cost debt and equity, fuel cost, etc. assumed in the revised COS).

Existing & Historical rates

IC-326 NLH Regarding IC 23NLH Break out the components showing the assets to which they relate, in reference to costs of specifically assigned assets.

Cost of Fuel

IC-327 NLH Regarding NP-112, provide all data and calculations, including the monthly Holyrood fuel prices, the monthly forecast number of barrels, the monthly loads by customer (assumed COS loads and forecast loads), the forecast hydraulic variation (assumed COS and forecast generation), the forecast secondary energy sales, the forecast rural rate alteration, the forecast RSP riders and collections and interest and any other data required to calculate the RSP balance in NP-112

IC-328 NLH Please explain in detail all assumptions used in the 2004 COS to determine the fuel costs for the gas turbine and diesel generators on the Island Interconnected System. Include all assumptions regarding number of kW.h generated, number of hours run for each unit type.

Operating costs

Wheeling

Labrador

Industrial contracts

IC-329 NLH Regarding IC-58 NLH: Had no spill occurred, what amounts would have been paid to CBPPL and/or ACCC in respect of the surplus energy referred to in IC-58 NLH, and how would that amount have been calculated?

Interruptible Capacity

Cost of Service Methodology

- IC-330 NLH Extend the table at page 3 of the answer to IC-65 NLH to include 1992, and complete all information for all systems from 1992 to 2002.
- IC-331 NLH Regarding Exhibit JRH-3 please confirm that the Paradise River GS is connected to TL212.
- IC-332 NLH Regarding Exhibit JRH-3 please confirm that TL212 extends past the Paradise River GS.
- IC-333 NLH Regarding Exhibit JRH-3 please confirm that TL219 is not constructed to service the Paradise River GS.
- IC-334 NLH Regarding Exhibit JRH-3 please provide separately the plant in service, net book value, depreciation and O&M figures (as used in the Cost of Service Exhibit RDG-1) separately for each of the following: 1) TL219, 2) the portion of TL212 between Paradise River and Sunnyside, 3) the portion of TL212 between Paradise River and the southern terminus.
- IC-335 NLH Regarding Exhibit JRH-3 page 22 indicates that NP is “now relocating a portion of their thermal generation (15 MW gas turbine) elsewhere on the system”. Please indicate whether the Tables 2-1, 3-1, 3-2 and 3-3 at pages 5, 9 and 11-13 of this exhibit reflects the Burin Peninsula generation prior to or after the relocation.

IC-336 NLH Regarding Exhibit JRH-3 please provide a copy of Tables 2-1, 3-1, 3-2 and 3-3 for both the situation had NP left the 15 MW gas turbine on the Burin Peninsula throughout the period, and the situation with the 15 MW gas turbine moved elsewhere.

IC-337 NLH Regarding Exhibit JRH-3 suppose Hydro were to adopt a category of assignments that included the following three new categories: "Specifically assigned to Hydro Rural and NP, but not Industrial", "Specifically assigned to NP and Industrial, but not Hydro Rural", and "Specifically assigned to Industrial and Hydro Rural, but not NP". Which transmission and terminal station assets might be reasonably reclassified from common to each of these three groupings based on providing service to two groups of customers, but not the third? Please provide the plant in service, net book value, depreciation and O&M figures (as used in the Cost of Service Exhibit RDG-1) for all assets that would properly be reclassified from common to each of these three groupings.

IC-338 NLH Regarding Exhibit JRH-3 please provide the COS impacts from assuming that the portion of TL212 between Paradise River and Sunnyside was assigned common and the remainder assigned only to NP and Hydro Rural.

IC-339 NLH Regarding Exhibit JRH-3 please indicate the loads (peak and energy) and revenues arising from service by Hydro on the Burin peninsula, separating sales to NP from sales to Hydro Rural.

IC-340 NLH Regarding Exhibit JRH-3 please indicate the forecast peak and energy to be generated by NP on the Burin peninsula in the 2004 COS.

Subsidy

GNP

- IC-341 NLH Regarding Exhibit JRH-3 please confirm that the two incidents described at pages 15-16 (January 30, 2003 operation and January 31, 2002 testing of GNP generation) prior to the most recent capacity additions.
- IC-342 NLH Regarding Exhibit JRH-3 please quantify the amount of capacity added to the system since January 30, 2003, and all additional amounts expected to be fully operational by 2004.
- IC-343 NLH Regarding Exhibit JRH-3 please confirm that the Hawke's Bay and St. Anthony Diesels total 14.7 MW of capacity.
- IC-344 NLH Regarding Exhibit JRH-3 please confirm that Hydro's 2003 additions to capacity (since the January 30, 2003 operation of Hawke's Bay and St. Anthony diesels) totals 87.3 MW.
- IC-345 NLH Please provide the total costs in the 2004 COS for the GNP transmission line assigned to "Hydro Rural" including return, depreciation and O&M.
- IC-346 NLH Please provide the total revenues received by Hydro from customers served by the GNP transmission line.
- IC-347 NLH Please provide the total kWh in the forecast 2004 COS supplied by non-GNP generation to service GNP customers (total GNP sales plus losses, less forecast GNP generation). Please indicate the

costs of generating this quantity of energy at Holyrood using the 2004 forecast fuel and variable O&M costs.

Capital Structure and Rate of Return

IC-348 NLH Re IC-122 NLH – Assume an individual shareholder with an annual taxable income from other sources of \$100,000 receiving a return of 50% dividends/50% capital gains and provide the answer to IC-122 NLH in each case, assuming that capital gains are crystallized on the last day of the year in which the return is received.

IC-349 NLH Re IC-122 NLH – Assume an individual shareholder with an annual taxable income from other sources of \$100,000 receiving a return of 25% dividends/75% capital gains and provide the answer to IC-122 NLH in each case, assuming that capital gains are crystallized on the last day of the year in which the return is received.

IC-350 NLH Re IC-122 NLH – Assume an individual shareholder with an annual taxable income from other sources of \$100,000 receiving a return of 75% dividends/25% capital gains, and provide the answer to IC-122 NLH in each case, assuming that capital gains are crystallized on the last day of the year in which the return is received.

IC-351 NLH Regarding Roberts Schedule V please confirm that Hydro's requested ROE in this proceeding is 10.75%.

IC-352 NLH Regarding Roberts Schedule V please confirm that Hydro proposed capital structure for the purposes of financing ratebase consists of 12.15% equity.

IC-353 NLH Regarding Roberts Schedule V please confirm that Hydro's 2004 mid-year Ratebase, per Roberts Schedule III and Schedule IV, is \$1,485,468,000. Please also confirm that, per Roberts Schedule IV, this consists of \$213,761,000 of rural assets on which Hydro earns no return on equity. Please also confirm that this leaves \$1,271,707,000 in Ratebase on which Hydro proposes to earn a full 10.75% return on equity.

IC-354 NLH Regarding Roberts Schedule V please confirm that a 12.15% equity ratio applied to the non-rural assets of \$1,271,707,000 reflects an equity investment of \$154,512,000.

IC-355 NLH Regarding Roberts Schedule V please confirm that the return on equity rate of 10.75% applied to an equity investment of \$154,512,000 yields a return on equity (or margin) of \$16,610,000. Please confirm that this is the total return on equity that Hydro proposes to include in its revenue requirement in this proceeding, and is consistent with RDG-1 page 2 of 107.

IC-356 NLH Regarding Roberts Schedule V please reconcile the \$16,610,000 return in RDG-1 page 2 of 107 with the \$21,179,000 margin in Roberts Schedule II.

IC-357 NLH Regarding Roberts Schedule V please confirm that Hydro's revenue requirement does not include a margin that is \$4.5 million in excess of the return that it proposes is fair. If not confirmed, please provide a full explanation for the \$4.5 million variance.

IC-358 NLH Please provide a full COS study (comparable to exhibit RDG-1) assuming a 3% ROE for 2004.

IC-359 NLH Provide detailed calculations to show the derivation of the betas shown in Schedule XIII of the Cost of Capital Evidence. Please include the time period over which the betas were estimated, the frequency of the data relied upon (daily, weekly, monthly, etc.), and the model specification.

IC-360 NLH Please provide the data relied upon from TSE Review in electronic format. Including but not limited to return information for the sample companies and the market index January 1996 to December 2002.

IC-361 NLH Reference: Response to IC-126 NLH. Please confirm that Ms. McShane is not aware of any decisions by Canadian utility regulators after 1993 that have specifically adopted and relied upon the comparable earnings test for the purpose of determining rate of return on equity for a utility.

IC-362 NLH Reference: Schedule XXI. Please provide capital structure ratios for the listed sample companies.

Rate Stabilization Plan

IC-363 NLH Regarding IC-124 please indicate the treatment in the RSP of the loss of an industrial customer.

IC-364 NLH Regarding IC-124 please provide a sample copy of a the May 2003 RSP report assuming one of the industrial customers (for this case, assume Abitibi Stephenville had been lost as a customer (and therefore taken no power).

IC-365 NLH Regarding IC-124 please confirm that in the operation of the RSP prior to 2002, the RSP continued to include in the load variation

component the 1992 forecast loads of Albright and Wilson and Hope Brook.

IC 366 NLH Roberts, Schedule II - please provide all data in support of the \$46,807 million in RSP credits in 2002.

IC 367 NLH Roberts, Schedule II - with respect to the answer to IC-366 does this reflect only the fuel cost-related components of the RSP or all components?

IC 368 NLH Roberts, Schedule II - please provide the number 6 fuel costs that would have arisen in 2002 had the fuel price and hydraulic generation been exactly as forecast in the GRA.

IC 369 NLH Roberts, Schedule II - please provide the RSP credits that would have been included on Schedule II.

IC 370 NLH Roberts, Schedule II - please provide all details and rationales as to why the sum of Number 6 fuel cost and RSP in 2002 was approximately \$15.5 million less than forecast in the 2002 GRA. Include the quantitative impact on 2002 fuel costs for each reason given.

IC 371 NLH Roberts, Schedule II - please quantify the savings in fuel costs arising from achieving a 648 kW.h/bbl efficiency (per Haynes, Schedule VII) compared to a forecast 615 kW.h/bbl in P.U. 7 (2002-2003)

Depreciation

New generation

Holyrood

IC-372 NLH Haynes page 9 indicates Holyrood Units 1 and 2 are approximately 32 years old. Is it expected that Holyrood Units 1 and 2 will survive past 40-45 years? If so, what is the expected cost and timing of rebuilding required in the next 10 years to allow these units to continue to operate past the 40-45 year time frame. If not, how does Hydro plant to address the capacity and energy shortfalls arising from retirement of these units.

IC-373 NLH Please indicate whether, in what amounts and in what years Hydro's long-term financial model includes capital expenditure forecasts to 2012 to address generation and transmission plant replacement. Does this 'long-term financial model' forecast include all amounts discussed above to address the concerns noted at Haynes page 9 and Reeves page 7?

IC-374 NLH Regarding NP-130, provide all detail and backup regarding the 0.45 cents/kW.h variable O&M costs of Holyrood. Indicate where these costs arise in the categories in Roberts, Schedule II (i.e., what portion is generally related to additives and indirects, environmental fees, ignition fuels, salaries, maintenance, etc.)

Granite Canal

IC-375 NLH Regarding CA-35 please provide all data and assumptions to calculate the Granite Canal anticipated Annual Cost (\$/MW.h) for each year 2004-2007 including generation, net book value, any additional capital investment, costs of depreciation, return, O&M, etc.

IC-376 NLH Regarding CA-35 please indicate any changes to the Granite Canal costs that arise from the revision to Hydro's ROE proposal (to move the ROE requested down to 9.75%).

IC-377 NLH Exhibit RDG-1 lists the assets in service value for Granite Canal at \$119.503 million. CA-39 lists the Granite Canal project at approximately \$135 million. Please reconcile the two numbers, specifying the amounts related to transmission, terminal stations, etc.

IC-378 NLH Please provide the depreciation cost of Granite Canal (on the \$135 million in assets) separating depreciation by generating station, transmission, terminal stations, etc.

IC-379 NLH Please compare the \$135 million capital costs in CA-39 for a 40 MW plant (\$3,375/kW), with the estimated capital costs of \$2,608/kW at Page 15 of CA-36. Please separate out transmission and terminal stations, inflation, interest during construction, etc.

Other Generation

IC-380 NLH Haynes page 9 indicates Bay D'Espoir units vary between 26 and 36 years old. Please confirm this is well within the expected lifespan for hydraulic generating units. Please indicate whether any major capital projects are expected on these units in the next 10 years as a result of their age, including projected timing and costs.

IC-381 NLH Please comment on any other major generation plant rebuilding or refurbishing projected to be required in the next 10 years, including projected costs and timing.

IC-382 NLH Compare the test year assumptions regarding gas turbine and diesel engine usage against the record of usage for the past 10 years.

IC-383 NLH Please indicate whether any adjustments were made to reflect the new capacity brought into service, and the decreased likelihood of relying on these plants now that the new generation has been brought on-line.

Load

IC-384 NLH Regarding IC-190 please confirm that Coincident Peak used for NP in the attached COS analysis is 1084.0 MW. If not, please indicate what Coincident Peak is used for NP, along with rationales.

IC-385 NLH Regarding IC-190 please show all calculations used in determining the system load factor for the attached COS analysis.

Demand

Capacity Requirements

IC-386 NLH Confirm that Table 8 at Haynes page 37 projects LOLH and Energy Balance assuming all current plant remains in service beyond 2012.

IC-387 NLH Please indicate what options Hydro considers to be available for supplying the forecast capacity/energy deficits in the 2010 to 2012 period. Do the options include new hydro on the island? increased oil generation? coal? interconnection to Labrador? other options?

- IC-388 NLH Regarding Haynes, Page 37, please indicate the considerations that will be weighed in determining whether new sources of supply will be constructed by Hydro versus constructed and owned by others. If the sources of supply will be constructed by Hydro, will they be considered regulated assets?
- IC-389 NLH Regarding Haynes, Page 37 based on the table at page 37, if Hydro were to bring new sources of supply on line for 2010, what is the projected capacity and energy that Hydro would plan for in this addition?
- IC-390 NLH Please confirm that the new generation required at about 2010 would be on the order of 3 times the Granite Canal GS, assuming all Hydro's other plant remained in service.
- IC-391 NLH Please provide Hydro's ten year forecast of any retirements for generation units.
- IC-392 NLH Regarding Haynes Table 8 - please explain the differences in the LOLH relationships illustrated in Budgell Schedule XII from the 2001 application and Haynes Table 8. In particular, please indicate why a 1652 MW peak in Budgell (assumed in 2005 – after Granite Canal and new PPAs are in service) results in a 2.35 hours/year LOLH while a 1654 MW peak in Haynes (now assumed in 2010) results in a much higher 2.8 hours/year LOLH. Likewise 1632 MW peak (Budgell, forecast in 2004) equates to 1.45 hours/year LOLH, while 1634 MW peak (Haynes forecast in 2008) equates to 1.9 hours/year LOLH.
- IC-393 NLH Regarding Haynes Table 8 - please confirm that Budgell Schedule XII from the 2001 application reflected peaks that were 46 MW

lower than would otherwise have been expected had there been no Interruptible B program in place.

- IC-394 NLH Regarding Haynes Table 8 - please explain the substantial downward revision in long-term forecast peaks from Budgell Schedule XII from the 2001 application to Haynes Table 8, particularly in regards to the 46 MW increase that should have resulted from the elimination of Interruptible B.
- IC-395 NLH Regarding Exhibit JRH-3, please provide the “Installed Net Capacity MW” by year corresponding to each of the LOLH columns in Table 3-3.
- IC-396 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming the gas turbines were retired during 2004.
- IC-397 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming all diesel engines were retired during 2004.
- IC-398 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming all GNP generation was disconnected from the Island Interconnected System.
- IC-399 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming 1) all GNP loads were disconnected from the Island Interconnected System, 2) all GNP generation was disconnected from the Island Interconnected System.

IC-400 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming 1) all GNP loads were disconnected from the Island Interconnected System, 2) all GNP generation was disconnected from the Island Interconnected System, and 3) all gas turbines were retired from service in 2004.

IC-401 NLH Regarding IC-276 NLH: Please show the effect on Haynes Table 8 for the Island Interconnected system assuming Hydro maintained the 46 MW of Interruptible B power through the entire 10 year forecast.

Losses

Preferential rates

Rate Structure

NP generation credit

IC-402 NLH Regarding IC-306 NLH, provide all test year COS assumptions regarding payments to NP for operation of their thermal generation, including the number of kW.h generated and number of hours run for each unit type. Indicate the total costs assumed and where these amounts show up in the COS study.

General questions

IC-403 NLH Regarding IC-315 NLH, at Reeves, page 7 Hydro indicates that a portion of the transmission plant is nearly the end of its normal service life. Please comment on any major transmission plant

rebuilding or refurbishing projected to be required in the next 10 years, including projected costs and timing.

IC-404 NLH Regarding Roberts Schedule VIII: Please explain the negative values in the unamortized debt premium and financing expenses asset.

IC-405 NLH Regarding Roberts Schedule VIII: Please update NP-217 and NP-142 from the 2001 hearing.

IC-406 NLH Regarding Roberts Schedule VIII: For the updated NP-217 and NP-142 values, please explain, in detail, the calculation of any “excess of assets over capital structure” including all figures necessary to illustrate the differences arising from mid-year balances and 13 month averages.

IC-407 NLH Regarding NP-90: For all months that the “post-purchase inventory price” does not equal the following month “pre-purchase inventory price”, please provide an explanation of the changes.

IC-408 NLH Regarding NP-90: Please explain why the 2002 January pre-purchase inventory price at page 1 does not equal the 2002 January pre-purchase inventory price at page 2.

IC-409 NLH Regarding NP-90: Please explain how a pre-purchase inventory price of \$34.9303/bbl in December 2002 (actuals) is adjusted by addition of \$37.31/bbl fuel to get a post-purchase inventory price of \$37.43/bbl (higher than the original inventory price or the price of fuel added).

IC-410 NLH Regarding NP-90: Please detail which months in 2003 are actuals versus forecasts.

IC-411 NLH Regarding NP-90: Please reconcile the \$25.88/bbl 2002 COS test year fuel cost with Board Decision P.U. 7 (2002-03) of \$25.91/bbl (per page 52) and CA-3 page 3 at \$25.91.

IC-412 NLH Regarding NP-90: Please reconcile the 2002 Actual fuel prices with the respective Sept 2002 to December 2002 RSP reports.

Dated at St. John's, this 18th day of August, 2003.

STEWART MCKELVEY STIRLING SCALES

POOLE ALTHOUSE

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