**IN THE MATTER OF** the *Public Utilities Act* R.S.N 1990, Chapter P-47 (the "Act"); and

IN THE MATTER OF a General Rate Application "Application") (the bv Newfoundland and Labrador Hydro for approval 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 in the Rules and Regulations applicable to the supply of electricity to Rural Customers.

## **Requests for Information of the Island Industrial Customers**

- IC-1 NLH Please provide a schedule that shows all DSM operations and maintenance expenses included in the final approved 2004 test year, actual DSM O&M expenses for 2004 and 2005 and forecast DSM costs for 2006 and 2007. Please separately identify salaries and wages from other types of O&M expenses.
- IC-2 NLH Please discuss whether Hydro has any specific peak (MW) or energy (GWh) savings targets for its DSM programming. If so, please describe and provide details of the types of savings and the targets for each customer class. Please also indicate whether Hydro's DSM programs are primarily aimed at capacity or energy savings.
- IC-3 NLH Please indicate where in the Application cost savings related to Hydro's DSM activities are included. Provide all supporting calculations setting out the assumptions and magnitude of these savings.
- IC-4 NLH Please indicate where in the Application cost savings related to NP's DSM activities are included.
- IC-5 NLH Please provide a schedule similar to J.R. Haynes VI that shows the Energy Supply and Fuel Expense information for each month.
- IC-6 NLH Please explain whether the Production values in Schedule J. R. Haynes VI are net of station service. Please provide a revised version of the schedule that shows for each production type, gross generation, station service and net generation and indicate how each of these values are metered or calculated.

- IC-7 NLH With respect to Schedule J.R. Haynes VI, please reconcile the negative Gas Turbine/Diesels Production values with the Gas Turbine/Diesel Production Cost. Please include the relevant gross generation numbers, fuel conversation factors and price per unit of fuel.
- IC-8 NLH Please provide a copy of Schedule J. R. Haynes VIII showing the 2007 fuel forecast by month assuming the fuel purchases reflected 2% Sulphur fuel instead of 1% Sulphur fuel.
- IC-9 NLH Please provide copies of the correspondence Hydro relies upon to support the statement that "It is anticipated that a revised Certificate of Approval, to be issued in the near future, will set out the parameters that Hydro will have to meet in order to operate the fossil-fuel fired plant" at lines 4 through 7 of page 16 of the Regulated Activities evidence. Does Hydro anticipate that these parameters will include only the use of 1% Sulphur fuel, or are there expected to be other cost implications with respect to meeting the requirements of the revised Certificate of Approval? If so please describe and quantify any such costs included in the 2007 test year.
- IC-10 NLH Please reconcile the Revenue Requirement Excluding Return on Ratebase figure of \$330,450,617 on line 20, column 2 of Schedule 1.1 page 1 of 2 of the Cost of Service Study with the \$329,607,000 2007 forecast test year costs before return on rate base cited on Schedule III page 2 of 2 of Mr. Bradbury's evidence. Please separately indicate all adjustments, additions or deletions necessary to reconcile the two sets of figures.
- IC-11 NLH Please provide a schedule that reconciles the Fuel and Purchased power expenses cited in M.G. Bradbury Schedule I page 7 of 10 with the information in Mr. Haynes' evidence, on pages 33 through 36 and Schedules VI, VII and IX as well as the fuel expense information in Schedule 1.1 of the Cost-of-Service Study. Please separately identify No. 6 fuel expense, purchased power costs, diesel and natural gas costs for each system and provide the information for the actual years 2004 and 2005, the 2004 test year forecast, the 2006 forecast and the 2007 test year forecast. Please also separately identify and explain all relevant adjustments between the three sets of schedules.
- IC-12 NLH Please provide a schedule that shows for each actual year from 2002 through 2005, the total salary and benefits spending, the capitalized portion of salary and benefits spending and the total actual capital program spending. Are all amounts listed as "capitalized salaries" on Bradbury Schedule I page 10 of 10 captured as spending in Hydro's capital program?
- IC-13 NLH What is Hydro's policy with respect to capitalization of salaries and benefits or other overheads? Please describe how the salary and benefit amounts to be capitalized are determined on an actual and a forecast basis.

- IC-14 NLH With respect to the amortization of deferred major extraordinary repairs, please provide a continuity schedule showing the amounts added or expected to be added in each year from 2004 forward, the amount amortized in the year and the deferred amount remaining at the end of each year. Please separately indicate the amounts relating to the estimated \$2.2 million repair of the boiler tubing of the Holyrood Unit #2 boiler from any other amounts that might be proposed to be treated in this way. Please reconcile the amortization amounts with the Amortization of Deferred Major Extraordinary Repairs line of Schedule I from Mr. Haynes' evidence, separately indicating and explaining any adjustments.
- IC-15 NLH With respect to Employee Future Benefits, please provide an explanation of how the amounts included as an operating expense on line 3 of Schedule I page 10 of 10 of Mr. Bradbury's evidence are derived from the Accrued EFB Obligation amounts derived on Schedule I page 9 of 10 of Mr. Bradbury's evidence.
- IC-16 NLH Please provide a reconciliation of the EFB amounts from 2002 actuals to forecast 2007, including all actual and forecast spending and actuarial calculations.
- IC-17 NLH Please provide reconciliation between EFB for 2004 forecast in the 2003 General Rate Application to 2004 actuals.
- IC-18 NLH Please confirm that the amounts listed as "Studies" on Table 3 of Mr. Bradbury's evidence relate only to the NP generation value and Marginal Cost studies. If this cannot be confirmed please indicate what other study costs are included with this item.
- IC-19 NLH Please provide the latest version of Hydro's 5 year "financial projection" as provided in CA-3 from the 2003 General Rate Application.
- IC-20 NLH Please indicate where the \$2.2 million amortization expense related to Foreign exchange losses listed in Table 3 of Mr. Bradbury's evidence is included in the Total Operating Expenses on Schedule I page 10 of 10 and Schedule III page 2 of 2.
- IC-21 NLH With respect to the Property and Assets review, please provide an estimate of the degree (both quantum and percentage) to which ratebase and return on ratebase would have been reduced in the 2004 test year had this analysis been completed prior to the last General Rate Application.
- IC-22 NLH With respect to the Property and Assets review, please provide a schedule showing gains and losses on disposal related to these assets. Please also provide an indication of the year(s) in which any related gains or losses on disposal were recorded in Hydro's financial statements.
- IC-23 NLH With respect to cost recoveries and non-regulated costs, please provide a schedule that breaks out the \$2.899 million in cost recoveries and \$2.897 million in costs allocated to non-regulated customers in Schedule III page 2 of 2 of Mr. Bradbury's evidence into the categories as described under headings 6.5.2 and 6.5.3 on pages 18 and 19 of the evidence of Mr. Bradbury.

- IC-24 NLH With respect to section 4.2.3 on page 16 of Mr. Martin's evidence, please provide more specific detail on Hydro's consideration of opportunities to advance the Island Pond and Portland Creek generating stations. In particular, please provide any capital cost and operating expense estimates related to these facilities as well as their estimated capacity and energy benefits. Please also indicate whether the advancement of these hydroelectric generation projects is being considered in the context of the concerns regarding air emissions from the Holyrood Thermal Generating Station detailed on lines 16 through 25 on page 16 of Mr. Haynes' evidence or the overall level of increase of fuel expense.
- IC-25 NLH With respect to the issues related to recruiting and retaining trades workers, lineworkers and electrical and mechanical maintenance workers outlined on page 12 of Mr. Haynes' evidence, please provide a schedule that shows for the 2004 test year, the 2004 and 2005 actual years, the 2006 forecast and the 2007 test year forecast, the total number of FTEs related to such positions and the total salary and wage expenses related to these positions and the year over year cost increases related to these positions.
- IC-26 NLH Please provide the wage information relied upon to support the statement on page 13 of Mr. Haynes' evidence that "without a wage increase, Hydro's lineworkers will be making up to 13% less per hour than the Atlantic Canadian average and NP's lineworkers". Please also provide the average proposed wage increase included in this Application for these types of positions.
- IC-27 NLH Please provide a continuity schedule showing the expenses related to overhauls undertaken of each thermal unit in the last 20 years and scheduled within the next 10 years.
- IC-28 NLH Does Hydro forecast overhaul expenses individually on an annual basis, or do forecasts include a more "normalized" amount for overhaul spending?
- IC-29 NLH Please update the response to IC-76 NLH from the 2003 General Rate Application showing the assumed COSS generation by source for the 2007 test year.
- IC-30 NLH Please provide an update for the 2007 test year to the response to IC-77 NLH from the 2003 General Rate Application.
- IC-31 NLH Please provide a schedule showing the actual and forecast NP sales and generation (by source) for the 2004 test year, the 2004 and 2005 actual years, the 2006 forecast and the 2007 test year forecast.
- IC-32 NLH For the Island Interconnected System, please provide a summary of any changes to the classification, assignments or allocations used in the 2007 cost-of-service study (relative to the 2004 COSS). Please describe the reason for the change as well as the impact on each customer class.
- IC-33 NLH Please provide an update to IC-23 NLH from the 2003 General Rate Application.

- IC-34 NLH Please provide an update for the 2007 test year to the response to IC-24 NLH from the 2003 General Rate Application.
- IC-35 NLH Please explain in detail the basis for each of the estimated Specifically Assigned amounts set out in the 2007 cost-of-service, as well as the basis for each of the allocations to NP and each Industrial Customer.
- IC-36 NLH Please provide the detailed calculations supporting the figures in Table 4 of Mr. Mitchell's evidence including all billing determinants and rates. For RSP rates, please provide all calculations or pro-forma RSP reports in support of the rates.
- IC-37 NLH Please update the response to IC-190 NLH from the 2003 General Rate Application.
- IC-38 NLH Please provide a revised cost of service study assuming that NP's peak is not reduced for the generation credit.
- IC-39 NLH Please provide a comparison of the cost of debt from the Final 2004 figures to the 2007 test year forecast, indicating the impact of any new debt issued, any debt redeemed, sinking fund balances or other changes similar to IC-238 NLH from the 2003 General Rate Application. Please provide actual 2004 figures and explain any differences between the "final" 2004 and actual 2004 values.
- IC-40 NLH Please provide an electronic version of the 2007 cost of service study in MS Excel format.
- IC-41 NLH Please provide an updated version of the information from IC-266 NLH from the 2003 General Rate Application.
- IC-42 NLH Please provide a comparison of the long-term load forecast used in the 2003 General Application with the version used in the current Application. Please indicate all variances and provide an explanation of the reasons for any differences.
- IC-43 NLH Please indicate any occasions since January 2003 when NP's generation has been dispatched by Hydro to cover system capacity peaks, including the date and time, duration, MW and MWh dispatched and any amounts paid by Hydro to NP.
- IC-44 NLH Please provide a schedule that compares the functionalization, classification and allocation of costs related to Granite Canal between the 2004 cost-of-service and the 2007 cost-of-service study. Please provide an explanation for any differences that arise either as a result of changes in the overall costs related to Granite Canal or cost-of-service methodology changes.
- IC-45 NLH Please provide a detailed summary of all changes to generation configurations on the Island Interconnected System since the 2003 General Rate Application and planned for 2007 or subsequent years for Hydro's or NP's generation. This includes retirements, unit relocations, de-ratings or re-ratings of units, or additions. Please indicate the location, date and basic rationale for the changes.

- IC-46 NLH Granite Canal: Please provide a reconciliation of the NBV for Granite Canal in Schedule 2.3A of the COS (\$110,740,995)compared to the 2004 final COS (filed in response to PU14(2004)) of \$119,564,170. Please provide a summary of all amounts spent or forecast to be spent in the intervening years as well as the depreciation expense that has been applied to this group of assets.
- IC-47 NLH Please provide a reconciliation of the NBV for "other small hydraulic" in Schedule 2.3A of the COS (\$2,917,398) compared to the 2004 final COS (filed in response to PU14(2004)) of \$772,769. Please provide a summary of all amounts spent or forecast to be spent in the intervening years as well as the depreciation expense that has been applied to this group of assets.
- IC-48 NLH Please provide a reconciliation of the NBV for "feasibility studies" in Schedule 2.3A of the COS (\$3,575,735) compared to the 2004 final COS (filed in response to PU14(2004)) of \$172,884. Please provide a summary of all amounts spent or forecast to be spent in the intervening years as well as the depreciation applied to this group of assets.
- IC-49 NLH Please provide a "one page" summary of the functionalized COS information from the 2007 COS (similar to IC-13(Rev)NLH from the 2003 General Rate Application)
- IC-50 NLH Please provide a copy of the RSP monthly reports since January 2004.
- IC-51 NLH Please provide a copy of Hydro's Annual Financial Reports to the PUB from 2004 onwards.
- IC-52 NLH Regulated Activities Evidence, Table 4: Please indicate all new supply-side resources and demand side resources assumed to be in service in this table (if any), indicating for each both the peak capacity and the energy contribution.
- IC-53 NLH Regulated Activities Evidence, Table 4: Please provide Hydro's current long-term expansion plan consistent with the format of the Base Case of Exhibit 6 (page 30) from Exhibit RDG-2.
- IC-54 NLH Regulated Activities Evidence, Table 4: Please provide a copy of Table 4 consistent with the Energy Balance and LOLH values from Table 2 of the May 2006 NERA Report.
- IC-55 NLH Please provide a table comparable to Exhibit 6 in the February 3, 2006 Stone and Webster Report (exhibit RDG-2) that compares the most current "Base Case" expansion sequence with the expansion sequence that arises under a scenario where Hydro has access to a renewed Interruptible B under the same terms and magnitude (46 MW of contracted capacity) for the full duration of the planning sequence.

- IC-56 NLH Re: NERA July, 2006 report, Table 3: Please provide the rate schedules for basic firm service to industrial customers for each of the major Canadian crown-owned vertically integrated utilities. Please indicate the level of demand and energy charges in the respective industrial rates. Please indicate any of these utilities that use demand charges of \$1.67 or less per kVA per month.
- IC-57 NLH Please provide the scope of assignment provided to NERA by Hydro for their two Marginal Cost studies.
- IC-58 NLH Please provide a copy of all written material or notes of conversations with NP indicated in the NERA Implications of Marginal Cost report (July, 2006) footnote 11.
- IC-59 NLH Please indicate and provides copies of all materials made available to NERA (reports, analyses, etc.) and provide any other information made available to or used by NERA in respect of the long-term development sequence and scenarios for the Island Interconnected System as set out at Table 2 of the May 2006 NERA report.
- IC-60 NLH Please provide a detailed explanation of the differences between the "base case" expansion analysis in the NERA May 2006 report (Table 2) and the Stone and Webster February 2006 report on the NP Generation Credit (Exhibit 6). Please explain all differences in assumptions between the two scenarios, including load forecasts (by customer class), reserve percentages, asset costing of each supply option and all other reasons driving the two different development sequences.
- IC-61 NLH Given NERA's conclusion that "NP may well be over-investing in demandreducing measures" in respect of loads used for the Hydro Cost of Service and Two-part rate design, what measures does NERA view as available to Hydro to address any "over-investment" that occurred to date. Would NERA recommend any adjustments be made to the Cost of Service methodology for allocating demand-related costs to NP to ensure they do not capture "savings" from these peak reductions that in NERA's opinion do not reflect any underlying reductions in Hydro's costs? If not, why not?
- IC-62 NLH NERA indicates in the July, 2006 report that "Because marginal capacity costs are so low, an obvious choice for the NP rate is a structure consisting entirely of energy charges" at page 11. Is NERA recommending NP's rate design be set as an "energy-only" rate?
- IC-63 NLH Was NERA made aware of Hydro's previous "Interruptible B" rate offering? If so, does this rate offering fit NERA's description of a rate that may have "important benefits on an operational basis, which are not captured in a long-term marginal cost analysis".
- IC-64 NLH Please confirm that NERA's June 28, 2006 memo (attached to the July 26, 2006 filing) indicates a 50% change in fuel price would result in a nearly 2500% change in NERA's estimated marginal value of capacity (\$158.89/kW compared to \$6.41/kW).

- IC-65 NLH Please confirm that at a basic level, NERA comes to the conclusion that (on top of all other rate changes requested in this Application) the Industrial Customers should receive a further 13.5 % increase and NP a 2.1% reduction due to capacity being overvalued in the Cost of Service study compared to the value of capacity in NERA's report based on marginal costs.
- IC-66 NLH Please confirm that NERA's May 2006 report at Table 5A indicates that Island Pond hydraulic generating station can be brought into service at a cost less than the benefits of Holyrood fuel it will displace, so the capacity that this plant brings to the system is, in effect, free. If so, please indicate whether NERA recommends bringing this plant into service as quickly as possible rather than waiting until 2015. If not, why not.
- IC-67 NLH Please confirm that NERA's May 2006 report at Table 5A indicates that Portland Creek hydraulic generating station can be brought into service at a cost less than the benefits of Holyrood fuel it will displace, so in effect the capacity that this plant bring to the system is, in effect, free. If so, please indicate whether NERA recommends bringing this plant into service as quickly as possible rather than waiting until 2019. If not, why not.
- IC-68 NLH Provide detailed calculations showing derivation of each ¢/kwh rate shown in Chart 7 on page 18 of the Corporate Overview Evidence.
- IC-69 NLH Identify any improvements in the SAIDI and/or SAIFI in 2005 and explain what, if any, impact the loss of the load at Abitibi Stephenville had on these improvements.
- IC-70 NLH Identify the delivery points included in the SAIFI calculation shown in the KPI Report included as JRH-1 at page 8.
- IC-71 NLH Reproduce Schedule I to the Regulated Operations Evidence to show, for each year after 2002, the percentage change year over year for each department.
- IC-72 NLH Produce the study of Demand Side Management Potential in Canada referenced at line 8 of the Regulated Activities Evidence at page 18.
- IC-73 NLH Provide the average age of diesel engines on the system as of 1990, 1995, 2000, 2005 and forecast 2007.
- IC-74 NLH Explain the 23.8% over-estimate of transmission losses from test year 2004 to actual 2004 as appears on Schedule III from the evidence of J.R. Haynes.
- IC-75 NLH Provide details of the capacity values for NP generating units by unit as used for the purposes of the 2004 Test Year Cost of Service and Load Forecast, the same details used for the purpose of the 2007 Test Year Cost of Service and Load Forecast and a complete explanation for any change in capacity assigned to any unit.

- IC-76 NLH How do the non-regulated activities of Hydro benefit from the regulated activities?
- IC-77 NLH Provide details of all the provisions associated with the Series V, X and Y Bonds which provide for or may be used to prepay or redeem such bonds prior to their maturity dates.
- IC-78 NLH Provide detailed calculations to show derivation of borrowing risk premium for Hydro at 0.55%.
- IC-79 NLH Explain why page 8 of 10 of Schedule I of M.G. Bradbury's evidence shows an apparent over-collection from Industrial Customers on historical RSP balances in 2007.
- IC-80 NLH Explain derivation of the numbers for Retained Earnings under the heading "Existing 2007" on Schedule II of the Evidence of M.G. Bradbury at pages 21-23.
- IC-81 NLH Expand Schedule III of the evidence of M.G. Bradbury to show actual 2005 and projected 2006 results with variance from each to proposed 2007.
- IC-82 NLH What specific activities is Hydro implementing or planning to deal with a possible 27% loss of employees over the next 5 years?
- IC-83 NLH Provide data in graphical and tabular form showing the actual operating efficiencies of each unit at Holyrood for the last 5 years.
- IC-84 NLH What specific activities are planned to maintain and improve these efficiencies for each unit at Holyrood over the next 5 years?
- IC-85 NLH Provide planning and scheduling statistics for each geographical and/or operational area for the last 5 years.
- IC-86 NLH What are the planning and scheduling targets?
- IC-87 NLH How does Hydro's cost/kWh and cost/KW rank with other utility providers in Canada/North America and the world?
- IC-88 NLH What benchmarking initiatives are planned to allow Hydro to know where its policies, procedures, practices and results rank against others?
- IC-89 NLH What specific implementation measures are anticipated for Kyoto compliance that result in the operating cost estimate being between \$1.0 million and \$10.0 million annually for the period 2008 to 2012?
- IC-90 NLH How does Hydro intend to account for the operational costs of Wind Power and assign same for Cost of Service purposes, particularly in light of the fact that its capacity is not being factored into future planning scenarios?
- IC-91 NLH What conservation targets have been set for the DSM initiatives for each of the next five years?

- IC-93 NLH Please provide details of the activities that are being implemented to contain or reduce each of the line item costs from IC-92 NLH above.
- IC-94 NLH Please provide operating data for each of the thermal units at Holyrood and each gas turbine, including the NP turbines for 2002 to 2005. The data should give operating hours and levels by month for each unit.
- IC-95 NLH How are services provided by Hydro to non-regulated activities tracked during the year, so as to be able to adjust the beginning of year estimate?
- IC-96 NLH With reference to pages 2 and 3 of the evidence of Mr. Sturge, specifically identify (a) all of the activities of the Regulated Operations division which are non-regulated, (b) whether all currently planned non-regulated activities of the Regulated Operations division have been removed from the 2007 revenue requirement, and (c) the dollar costs excluded from Hydro's regulated revenue requirement for all currently planned non-regulated activities, broken down by activity, to the extent not already stated at pages 18 and 19 of the evidence of Mr. Bradbury.
- IC-97 NLH With reference to page 18, lines 1-10 of the evidence of Mr. Bradbury, provide the respective detailed calculations of Hydro's cost of debt, capital structure and weighted average cost of capital for both prior to and following the removal of the impacts associated with non-regulated activities.
- IC-98 NLH With reference to pages 14-17 of the evidence of Mr. Greneman, has Hydro commissioned a report from Stone & Webster Consultants, or from any other source, regarding the NERA Marginal Cost Study or any aspects of marginal cost and rate design reviewed by NERA? If so, please provide a copy of same.
- IC-99 NLH Please provide a full active electronic copy (in MS Excel) of the COS model for the final 2004 COS including all impacts of P.U.14 (2004).
- IC-100 NLH Please provide a 2004 cost of service study reflecting actuals for the year.
- IC-101 NLH Re: evidence of J. R. Haynes, Page 32: Please provide detailed calculations in support of the change from a system reserve requirement of 16% to 15%. If Hydro plans its system capacity based on an LOLH target of 2.8 hours/year, please explain the need for or derivation of this "reserve" requirement. Is this just an estimate of the nameplate generation capacity over and above the peak load carrying capability of the system at a 2.8 hours/year LOLH?

- IC-102 NLH Re: evidence of J. R. Haynes, Page 32, change of system reserve percentage from 16% to 15%: Is this change a result of continued application of the same LOLH target of 2.8 hours/year to the system loads and configuration consistent with 2007 forecasts? If so, please indicate the system reserve percentage applicable to each year of the forecasts in Table 4 (page 30) of Haynes' evidence in the event that load characteristics forecast in future years are not consistent with the 15% reserve margin.
- IC-103 NLH Please describe the software used for calculating LOLH. Is it commercially available software or one developed in-house? Does it use analytical methods, Monte Carlo simulation, or other methods? Please provide a description of the analytical or Monte Carlo methods and parameters, to the extent relevant to the model. How were planned maintenance outages accounted for in the software?
- IC-104 NLH With respect to generation data used in the calculation of LOLH, provide a complete list of generating units including unit name, Maximum Continuous Rating (MCR), forced outage rate (assuming a two-state model for generators), seasonal derates, if any, and planned outage rates. If the software uses a multi-state model for generator outages, provide the state probabilities of outage and explain how the model treats multi-state generating units. Does the software account for seasonal minimum and maximum outputs or energy limitations on hydro generation? If so, please provide the parameters for each relevant generating unit and the rationale for the seasonal limitations.
- IC-105 NLH For each generator, please provide Hydro's number of forced outage hours per year for the past 10 years (as available) to support the probabilities of outage used in the model.
- IC-106 NLH Does Hydro incorporate any transmission or transformation reliability considerations in its LOLH calculations? If so, please provide the system topology used in the LOLH modelling, and all variables and outage data used by the model. Explain how the model accounts for transmission outages. (For example, does the model produce equivalent multi-state units at certain buses combining transmission outage probabilities with the outage probabilities of the generators that would be affected by transmission outages?)
- IC-107 NLH Automatic Adjustment Formula for Return on Equity: Given Hydro's proposed approach, please confirm that the effect (given the 2007 proposed rate base and capital structure) is that if the "new" rate of return on equity falls within a range of 3.92% to 6.41% in any year, there would be no change to rates.
- IC-108 NLH Please provide a full sample calculation, showing all steps, of the calculation of the forecast monthly NP bill for each month of 2007.
- IC-109 NLH Please provide an explanation of the "weather adjustment true-up" component of NP's rate. What is this variable intending to capture? What is the basis for the "one-ninth" adjustment of the calculation? Please provide the monthly weather adjustment true-up forecast including all calculations for 2007.

- IC-110 NLH Automatic Adjustment Formula for Return on Equity, page 11: Please provide a description of the mechanism used by NP to determine the required change to rates when the ROE calculation in any given year is outside the allowed range. Does NP re-run their cost of service or is some other mechanism used.
- IC-111 NLH Cost of Service Evidence, page 17: Please provide further explanation as to what is meant by the second bullet under section 4.2 "Due to their high-load factor and the relative inability to shift load between costing periods, the Industrial Customers may not be able to easily respond to marginal cost-based price signals". In the event that Industrial Customers indicate they are able to shift loads or curtail loads in response to price signals (in order to capture DSM or load management savings) would Mr. Greneman recommend Hydro consider more flexible rate structures, including perhaps curtailable rates or other time-of-use considerations?
- IC-112 NLH Please provide a copy of Bradbury Schedule IV for each of the 2004 final test year amounts, 2004 actuals, 2005 actuals, and 2006 forecast.
- IC-113 NLH Please provide Hydro's schedule for sinking fund contributions in 2007 and for the subsequent 5 years. Please indicate how Hydro determines the sinking fund contributions in each year. Are the sinking fund contributions required by the debt instrument, by legislation, or justified by Hydro on some other basis? If sinking fund contributions are required by the debt instrument or legislation, does Hydro limit its sinking fund contributions each year to the minimum required? If Hydro's sinking fund contributions are not required but justified by Hydro on some other basis, please provide all analysis, detail and reports prepared by Hydro in support of this justification.
- IC-114 NLH Please provide a detailed summary of the sinking fund investments held by Hydro, and the forecast earnings on these respective investments. Please provide any policies or regulations that govern the scope of investments Hydro is allowed to make in respect of its sinking funds.
- IC-115 NLH Please provide all calculations and detail in support of Hydro's calculation of the "non-regulated debt pool", "CF(L)Co Share purchase debt", "Non-regulated Debt pool interest" and "CF(L)Co share purchase interest" in Bradbury Schedule IV. Please indicate whether these amounts include assignment of the relevant portions of debt issuance expense and guarantee fee associated with these instruments.
- IC-116 NLH Re: Bradbury Schedule IV. Please provide the calculation of gross interest, debt issuance expense, guarantee fee and sinking fund by series. Indicate all relevant cost rates (interest and guarantee fee) and forecast earnings (sinking funds).
- IC-117 NLH Please reconcile the sinking fund interest earned at Bradbury Schedule IV of \$11.6 million with the \$14.1 million of interest earned at Bradbury Schedule 1 Page 6.

- IC-118 NLH Please reconcile the \$11.108 million return on regulated equity in Bradbury Schedule I page 6, with the \$9.362 million in return on regulated equity from the Cost of Service study Schedule 1.1 page 2 line 22.
- IC-119 NLH Finance and Accounting Evidence, Table 3: Please confirm all amortization amounts indicated in this table are reflected in Operating and Maintenance expenses in Bradbury Schedule 1, with the exception of foreign exchange losses. Please confirm amortization of foreign exchange losses are included in the calculation of average cost of debt at Bradbury Schedule IV.
- IC-120 NLH Bradbury Schedule 1, page 5: Please provide all calculations in support of the cash working capital allowance for each year shown in the table. Please provide similar data and calculations in respect of 2004 final test year amounts.
- IC-121 NLH Regulated Activities, page 30: Please confirm Hydro expects to purchase wind energy at a price "comparable with the marginal costs of electricity at Hydro's Holyrood thermal plant". Does this apply to marginal costs at Holyrood today, or would the rates for purchase of wind ensure the wind developed remained at risk for price variances in Holyrood production in future. If prices reflect the marginal cost of fuel at Holyrood, please indicate what benefits exist for ratepayers under such a scenario (if costs would not be lower than simply burning oil).
- IC-122 NLH Regulated Activities, page 30: Please indicate the firm capacity Hydro considers would be provided by a 25 MW wind development, if any. In the event the exact value for firm capacity has not been determined but Hydro expects it to be greater than zero, please provide an indication of the range Hydro expects for firm capacity from the 25 MW wind development. Provide any calculation, analysis or reports in support of this level of firm capacity.
- IC-123 NLH Please provide all analysis, reports or evaluations that serve to update CA-36 from the 2003 GRA. Given the conclusions in that report to proceed with Island Pond for a 2003 in-service, please provide all analysis or reports prepared by Hydro to calculate the costs and benefits of deferring this project for more than a decade.
- IC-124 NLH Given that Hydro's base case planning scenario as shown in Exhibit 6 of Exhibit RDG-2 indicates new hydro resources of 48 MW at 2011 and 18 MW at 2012, please provide Hydro's planning schedules for these projects, including planning activities and all related spending forecasts for 2007 through 2011.
- IC-125 NLH With respect to Mr. Wells's comments at the October 9, 2003 transcript, page 160, lines 14-23, please indicate the timing assumed by Hydro with respect to the PUB jurisdiction and role in planning the supply options shown in Exhibit 6 of Exhibit RDG-2. Does Hydro's 2007 revenue requirement include any forecast costs associated with potential PUB review in 2007 of Hydro's integrated resource plan prior to the required commitments to wind generation (in 2007, 2009 and 2010) or new hydro (for in-service as of 2011 and 2012).

- IC-126 NLH Please provide details or reports of any programs Hydro has undertaken to assess the potential for future Supply Side Enhancements related to its hydraulic generating stations, including re-runnering, rewinds, existing plant refurbishments or water management projects. If this has not been examined, is this type of review expected to be a component of Hydro's consideration of supply side resources to meet supply constraints in the next 5 years?
- IC-127 NLH Please provide copies, or if not completed an update and preliminary conclusions, with respect to the 2006 feasibility studies in respect of Island Pond and Portland Creek generating stations.
- IC-128 NLH Please provide a copy of all reports or analyses prepared by SGE Acres for Hydro since the 2003 GRA in relation to the long-term average energy production capability of the Island Interconnected System.
- IC-129 NLH Please provide a description of the SYSSIM hydrologic model used by Hydro in determining the new long-term average hydraulic generation capability. Please indicate the time-step used in the model (monthly, hourly, etc.). Please provide the loads and load duration curve assumed in the model and indicate if the loads reflect system conditions prior to the closure of Abitibi-Stephenville or post-closure. If the system capability in the GRA reflects loads prior to the closure of Abitibi-Stephenville, please indicate if Hydro has done any assessment of the model to reflect load characteristics on the system post-closure.
- IC-130 NLH Per the 2003 GRA Application, Haynes Table 7, the long-term average hydraulic generation calculated at that time was 4458 GW.h per year. The current long-term average hydraulic forecast per Regulated Activities evidence page 39 is 4472 GW.h per year. Please reconcile the differences with specific reference to: 1) the impact of corrections to the data series, 2) the incorporation of the 2003-2005 actual inflows, and 3) the change to the use of a simulation model compared to the previous approach.
- IC-131 NLH Please indicate the definition assumed with respect to "average annual energy production". Is it the mean output of the current system given the 56 actual flow sequences recorded (1950-2005), or is some other approach applied (such as median flows, Monte Carlo simulation, etc.). If the mean of 56 scenarios, please indicate the mean "surplus" generation or spillage calculated.
- IC-132 NLH Please confirm Hydro has not to date recorded an Asset Retirement Obligation under CICA Handbook 3110.
- IC-133 NLH Bradbury Schedule I page 2: Please provide the accumulated depreciation values in this table broken out by depreciation on assets proper, versus any Reserves for Future Removal and Site Restoration or other similar salvage components.
- IC-134 NLH Please update NP-5, IC-405 and IC-406 from the 2003 GRA for the 2007 test year.

- IC-135 NLH Please provide all data in support of the values in Table 5 of the Rates Evidence, including a forecast December 2006 RSP report.
- IC-136 NLH Please provide a schedule showing costs associated with all capital projects undertaken at the Holyrood Thermal Generating Station from 2003 through 2005 and forecast to be undertaken in 2006 and 2007. For each such project, please describe whether there were anticipated to be any operations and maintenance savings related to improved fuel efficiency or station service as a result of the project; the amount of such savings; and where these savings are reflected in the operations and maintenance forecasts for the 2007 test year.
- IC-137 NLH With respect to overhauls, is it Hydro's practice to expense overhauls in the year they occur, or does Hydro have in place a method to normalize overhaul costs through amortization of a deferral account?
- IC-138 NLH Is Hydro familiar with any methods used by other utilities to normalize overhaul costs? Does Hydro believe there could be benefits to developing methods to normalize or smooth the impact of overhaul costs?
- IC-139 NLH For the years 2002 through 2005, please provide Hydro's forecast capital spending by function (as detailed in the relevant capital budget approved by the Board) and actual capital spending by function for the same years. Please provide detailed discussion outlining the reasons for any variances.
- IC-140 NLH With respect to the calculation of rate base for 2007, please provide schedule similar to Schedule III page 1 of 2 from Mr. Bradbury's evidence that shows the same information for the actual years 2004 and 2005 and the forecast for 2006.
- IC-141 NLH With respect to the fuel amounts included in the calculation of rate base on Schedule III of Mr. Bradbury's evidence (page 1 of 2) please indicate how these amounts are determined on a forecast basis and provide a schedule detailing the forecasts by fuel type and location.
- IC-142 NLH Please provide all calculations in support of the weighted purchase price of fuel in Schedule VIII of Mr. Haynes' evidence.
- IC-143 NLH With respect to Demand Side Management costs, how are these costs treated in the Cost of Service Study? Please provide a schedule that shows the total DSM related costs allocated to each customer.
- IC-144 NLH Has Hydro reviewed how DSM costs are treated by other regulated utilities for Cost-of-Service purposes? If so, please provide a summary of Hydro's understanding of how other utilities treat these costs for COSS purposes and indicate whether Hydro's proposed treatment is consistent with the treatment in other jurisdictions.

- IC-145 NLH Has Hydro reviewed other jurisdictions where DSM costs are capitalized and amortized rather than expensed in the year they arise? Over what period does Hydro expect that its investments in DSM programs will continue to provide value to the utility and ratepayers?
- IC-146 NLH With respect to the 2005 Key Performance Indicators report, please provide the hydraulic generation and million cubic meters of water information used to calculate the Hydraulic Conversion Factor metric for 2001 through 2005 on page 13 of the report. Please describe all operational measures Hydro can take to improve its hydraulic conversion factor, regardless of hydraulic conditions. Please also indicate the volumes spilled in each of 2001-2005.
- IC-147 NLH With respect to the 2005 Key Performance Indicators report, please provide the net thermal generation and fuel information used to calculate the Thermal Conversion Factor metric for 2001 through 2005 on page 14 of the report. Please describe all operational measures Hydro can take to improve its thermal conversion factor.
- IC-148 NLH With respect to the 2005 Key Performance Indicators report, please provide the total controllable costs and MWh of generation used to calculate the Controllable Unit Cost on page 15 of the report. Please indicate which costs are included in "Controllable Costs". Please describe any operational measures Hydro can take to improve its Controllable Costs per MWh, with particular reference to such measures undertaken in 2005. Please indicate what, if any, O&M costs Hydro does not consider "controllable costs" and indicate why.
- IC-149 NLH With respect to the increase in Controllable Unit Cost/ MWh in 2005 relative to 2004, please describe and quantify (as closely as possible) the degree to which this increase was influenced by higher than average hydraulic production, loss of industrial sales, increased system equipment maintenance and other factors.
- IC-150 NLH Please describe in detail any analysis Hydro has undertaken to identify relevant utility or industry specific standards with respect to each of its Key Performance Indicators. Please discuss how Hydro's performance with respect to each of these indicators compares to these other utility or industry standards.
- IC-151 NLH Please provide a schedule that shows the salary costs and vacancy information from 1995 through 2004 used to calculate the 1.9% average vacancy rate.
- IC-152 NLH Please reconcile the statements on lines 12 through 15 on page 22 of Mr. Bradbury's evidence that Hydro's actual achieved vacancy rates have been falling, indicating tightness in complement levels with the statements on pages 12 and 13 of Mr. Haynes' evidence which indicate that Hydro is experiencing difficulty recruiting and retaining workers for many job categories. Does Hydro anticipate the recruiting difficulties will lead to increased vacancies in the future? If so, please discuss the operational and cost risks that arise due to these vacancies.

- IC-153 NLH Please provide all studies, documents, data, calculations and workpapers for the 2007 load forecast used in Hydro's COS study similar to the response to PUB-3 NLH from the 2003 GRA.
- IC-154 NLH Please reconcile schedule 4.2 of the Cost of Service study to J. R. Haynes Schedule III (similar to the response to IC-265 NLH from the 2003 GRA).
- IC-155 NLH Please provide an update to IC-326 NLH from the 2003 GRA with respect to the breakout of specifically assigned charges.
- DATED at St. John's, Newfoundland and Labrador this 18th day of September, 2006.

**POOLE ALTHOUSE** Per: Joseph S. Hutchings, O.C. STEWART MCKELVEY Per: The Board of Commissioners of Public Utilities Suite E210, Prince Charles Building 120 Torbay Road St. John's NL A1A 5B2 Board Secretary Newfoundland & Labrador Hydro 500 Columbus Drive St. John's NL A1B 4K7 Gillian D. Butler, Q.C. and Geoffrey P. Young,

Attention: Legal Counsel

Thomas Johnson, Consumer Advocate TO: O'Dea, Earle Law Offices 323 Duckworth Street St. John's NL A1C 5X4

P.O. Box 21040

P.O. Box 12400

Attention:

TO:

TO:

Newfoundland Power Inc. TO: P.O. Box 8910 55 Kenmount Road St. John's NL A1B 3P6

> Ian Kelly, Q.C. and Peter Alteen, Attention: Legal Counsel