

Wesley Hawe

From: Fred Martin
Sent: Tuesday, November 29, 2011 9:37 AM
To: 'Paul Wilson'
Cc: Maureen Greene; Sam Banfield
Subject: Comments on Interim Draft Report
Attachments: MHI draft report - Comments - MG - Nov 2011.docx

Good Morning Paul:

I have consolidated our collective comments, suggestions and questions on the front end (first 94 pages) of the subject report and will have it scanned and forwarded to you today. Most of what you will receive is a "marked-up" version of the report although the first part of the Executive Summary has been retyped because of the extent of our suggested changes. Section 5 has not been included, as we feel it requires significant changes. Also, as noted previously some of the Appendices are well written while others are not. We need to confirm how to address these issues.

Attached is a copy of Maureen's 5-page, 56 item summary of issues on the report. In most cases I have attempted to incorporate suggested wording changes, comments and/or questions related to her issues on the marked-up copy.

I will call you later this morning to discuss the Interim report, the draft status report #8 and other matters.

Regards

Fred

**Comments on
MHI Draft Report**

| <u>Item</u> | | <u>Reference</u> | <u>Comments</u> |
|--------------------|------------------------|----------------------------------|---|
| 1. | Third Party Disclaimer | Pg. 2 | Needs to be modified, this report is to be used by third parties in a public hearing. |
| 2. | Executive Summary | Pg. 3 | <ul style="list-style-type: none"> - Put Reference Questions quote at beginning – 2nd paragraph. - Add any comments here (see pg. 5) re scope of review – e.g. other alternatives not to be considered. |
| 3. | Executive Summary | Pg. 3 – current second paragraph | Purpose of review – must refer to review against standard of good utility practice or best practices or appropriate engineering standard. |
| 4. | Executive Summary | Pg. 3 – current third paragraph | DO NOT refer to reasonableness of exclusion of monetization of excess power. |
| 5. | Executive Summary | Pg. 5 | <ul style="list-style-type: none"> - DO NOT refer to other options which could have been considered (unless there is a real substantive one?) - Nalcor Submission does outline options eliminated and need to consider how this will be addressed from a policy perspective as is outside Terms of Reference. |
| 6. | Executive Summary | Pg. 5 – Finding # 3 | The paragraph on limitations is <u>not</u> a finding. Can go in section on the Terms of Reference. |
| 7. | Executive Summary | Pg. 5 – Finding # 4 | Not really a key finding. Needs to be reviewed in light of the Nalcor Submission. |
| 8. | Executive Summary | Pg. 6 – Finding # 6 | State it positively – e.g. done according to best practices – standard utility practices. |
| 9. | Executive Summary | Pg. 6 – Finding # 7 | Needs to be strengthened re: uncertainty and variability re key assumptions over study period adding to the risk. |

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| 10. | Executive Summary | Pg. 6 – Key Finding # 8 | State that the differential of \$98 million is insignificant in the context of the CPW. |
| 11. | Executive Summary | Pg. 6 – Key Finding # 9 | Add specifics from RFI answer on the 50% increase in capital cost. |
| 12. | Executive Summary | Pg. 6 – Key Findings in CPW | What about impact of load variability on CPW? |
| 13. | Executive Summary | Pg. 6 – Key Findings – Load Forecast | <ul style="list-style-type: none"> - Add implications of different load forecasts on CPW. - Possibly move to a Recommendation section. |
| 14. | Executive Summary | Pg/ 6 – Key Finding – Load Forecast | Refer to Load Forecast being completed according to standard or best practices. No need to refer to NP. |
| 15. | Executive Summary | Pg. 7 – Key Finding – Load Forecast | <ul style="list-style-type: none"> - Basis for identifying CBPP? - Basis for identifying IOC (Refer to RFIs) |
| 16. | Executive Summary | Pg. 7 – Key Finding – Load Forecast | Must add access to CBPP’s hydro plant! |
| 17. | Executive Summary | Pg. 7 – Key Finding – Load System, # 14 & 15 | Must be reviewed in light of Nalcor Submission and Exhibit 106. |
| 18. | Executive Summary | Pg. 8 – Key Finding # 16 – Power System Reliability | Needs to be more clearly stated. |
| 19. | Executive Summary | Pg. 8 – Key Finding # 17 | Remove “professionally” and state best practices or standard utility practices. |
| 20. | Executive Summary | Pg. 8 – Key Finding # 18 | This is <u>not</u> a finding. |
| 21. | Executive Summary | Pg. 9 – Key Finding # 19 | <ul style="list-style-type: none"> - Implications of this finding – Is it significant? - Is the study work referred to not available or not done by Nalcor? Explain what it is. |
| 22. | Executive Summary | Pg. 9 – Key Finding # 20 | <u>Can’t</u> say this. NERC standards not applicable because of <i>EPCA</i> ! |
| 23. | Executive Summary | Pg. 9 – Key Finding # 21 | Needs to be reviewed in light of recent RFI responses and Nalcor Submission. |

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| 24. | Executive Summary | Pg. 9 – Key Finding # 22 | <ul style="list-style-type: none"> - Explain what contingences were ignored. Refer to standard or good utility practice re review of contingencies in light of specific contingencies. - This appears to be a significant finding. Needs more explanation. |
| 25. | Executive Summary | Pg. 9 – Muskrat Falls GS Findings | <ul style="list-style-type: none"> - Put this after Load Forecast section. - Review the order of all the sections. |
| 26. | Executive Summary | Pg. 9 – Key Finding # 25 | This is not strictly a finding but a combination of commentary and a conclusion. Needs to be revised. |
| 27. | Executive Summary | Pg. 9 – Key Finding # 26 | Needs to be put in some context. |
| 28. | Executive Summary | Pg. 10 – Key Finding # 29 | This is not a key finding – minor at best. |
| 29. | Executive Summary | Pg. 10 – Key Findings # 30 & 31 | <ul style="list-style-type: none"> - Probably not a key finding and needs more information on implications for CPW and operations. - These 2 findings can be combined. |
| 30. | Executive Summary | Pg. 10 – Key Findings # 32 & 34 | Probably should be recommendations or commentary not key findings. |
| 31. | Executive Summary | Pg. 11 – Key Finding # 35 | Needs to be reviewed in light of Exhibits 105 & 106 and Submission. |
| 32. | Executive Summary | Pg. 11 – Key Finding # 36 | <ul style="list-style-type: none"> - Why wasn't the information on transmission line and structure design provided? Did we ask? Is it completed or not? - Is this a key finding? |
| 33. | Executive Summary | Pg. 11 – Key Finding # 39 | Reference to independent engineering firm? Was this MHI's consultant. Clarify. |
| 34. | Executive Summary | Pg. 12 – Key Finding # 42 | Not a finding but a recommendation. |
| 35. | Executive Summary | Pg. 12 – Key Finding # 44 | Can they say estimate was reasonable? |

| Item | | Reference | Comments |
|-------------|--|---------------------------|---|
| 36. | Executive Summary | Pg. 12 – Key Finding # 45 | <ul style="list-style-type: none"> - The reference to 2041 is out of context. - Needs a paragraph about role of Holyrood in both options and its expected reasonable life. |
| 37. | Executive Summary | Pg. 13 | <ul style="list-style-type: none"> - Need a separate heading for the Conclusion. - Need a different word than “professional”. |
| 38. | Introduction | Pg. 21 | Not correct to say independent review of generation expansion plan. Best to quote the reference question. |
| 39. | Portfolio of Energy Sources | Pg. 26 | This should be existing sources of supply which is what the map should illustrate. Don’t refer to Energy Plan and future resources here. |
| 40. | Generation Resource Planning Process | Pg. 27 | Make this section general for any utility. Don’t describe the Manitoba Hydro process. |
| 41. | Section 2.1 Review Methodology | Pg. 31 | <ul style="list-style-type: none"> - Come up with a better phrase than “track”. - The first wasn’t just a review of engineering reports, eg. load forecast. Make this section broader to include things like risk analysis, energy prices, etc. - Add section about testing results for changes in assumptions in key variables (sensitivities). |
| 42. | Section 2.8 | Pg. 37 | Don’t refer to RFI. Log. |
| 43. | Section 3.3 – Wind Farms | Pg. 41 | Section on methodology doesn’t need to be in each section. Just up front at the beginning of report on methodology in the general section. This section on wind should be shorter. |
| 44. | Section 4.1 – Muskrat Falls Generating Station | Pg. 46 | What does “should not be interpreted as a detailed peer review of the work” mean? Scope of review should be stated more objectively. |
| 45. | Section 4.1 – Muskrat Falls Generating Station | Pg. 48 | The clay plug comment re potential problems needs to be clarified. |
| 46. | HVdc Converter Station | Pg. 50 | Is the recommendation on a detailed document necessary? |

| <u>Item</u> | | <u>Reference</u> | <u>Comments</u> |
|--------------------|---------------------------------|-------------------------|---|
| 47. | HVdc Transmission Line | Pg. 51 | <ul style="list-style-type: none"> - Needs to be reviewed in light of Nalcor Submission and Exhibits 105 and 106. - - Needs “work”. |
| 48. | SOBI | Pgs 53 and 54 | This section is very light, needs more information. |
| 49. | Section 5 - Holyrood Plant | Pgs. 55-60 | Amount of 211 million for life extensions. Is this correct? Isn't this just sustaining capital not life extension? |
| 50. | Section 5 – Holyrood Plant | Pg. 60 | Statement re unreliable before 2041 needs more support (seems to come “out of the blue”). |
| 51. | Section 6 – Load Forecast | Pg. 61 | State basis for performance measure for accuracy. |
| 52. | Section 6 – Load Forecast | Pg. 64 | Do we need to refer here to the sensitivity analysis or the load reduction = to CBPP + Deer Lake Power? |
| 53. | Section 6 – Reliability Studies | Pgs. 65 and 66 | <ul style="list-style-type: none"> - Needs to be reviewed in light of Submission and Exhibit 106. - Needs more explanation (support why there is a “major gap”). - Not very clear overall. |
| 54. | Section 6.3 – AC Integration | Pgs 74 – 79 | <ul style="list-style-type: none"> - Needs to be reviewed in light of Submission and new information. - Reference to NERC and EPCA is legal argument and needs to be re-worded. - Need to discuss/review the 3 phase fault at Bay d’Espoir . - This section needs work! |
| 55. | Section 7 - CPW | Pg. 83 | Reference to CBPP load needs to be revised to reflect that the 8890 GWh is reduction in load plus access to their hydro plant. |
| 56. | Section 8 –Key Findings | Pgs 85-93 | This is a simple repeat from Executive Summary. See my comments on the Summary. Do we need in both places. |