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**IN THE MATTER OF THE YUKON ENERGY CORPORATION
2008 – 2009 GENERAL RATE APPLICATION**

Heard before the

YUKON UTILITIES BOARD

May 5-6, 2009

**FINAL ARGUMENT OF JOHN MAISSAN
LEADING EDGE PROJECTS**

General Issues

1. Cost of Service study and Phase II Application

In its opening statement Yukon Energy Corporation (Yukon Energy) committed to working with The Yukon Electrical Company Limited (YECL) to complete a Cost of Service study and to submit a Phase II Application to the Yukon Utilities Board (the Board). This change of position is a very positive development and Leading Edge is very pleased that Yukon Energy has agreed to a Phase II Application and Hearing as this will enable various intervenor concerns and suggestions to be discussed in an appropriate forum.

2. Major projects affected by contributions

Leading Edge is quite concerned that significant contributions by the Yukon Development Corporation (YDC) and the Yukon government (YTG) towards major projects are having a negative effect on various aspects of our electrical system choices. These aspects include the lack of thorough review of costs for major projects (Carmacks – Stewart Transmission Project or CSTP Phase I), the non-optimum choice of new generation supply to meet growing demands (Mayo B), the lack of consideration of demand side management and other supply alternatives, and significant constraints in ability to send appropriate and meaningful price signals in power rate structures to retail customers to encourage efficiency in electricity use.

3. Hydro is Yukon Energy's only area of real interest

Yukon Energy has said that the Yukon's power systems are rapidly running out of surplus hydro and that baseload diesel generation might soon be required [Transcript (Tr) Page (P) 37-38 and P 516 – 518;]. This is the reason given for pursuing the Aishihik third turbine, Mayo B, CSTP Phase II, Gladstone diversion, Atlin Lake storage, and Marsh Lake storage. Yet despite this apparent urgency Yukon Energy has done nothing on DSM, nothing on soliciting potential IPP projects, and almost nothing on pursuing the possibility of wind energy in a credible manner (in fact all Yukon Energy's messages are focused on discrediting wind energy). While Yukon Energy continually talks about renewable energy and likes to mention wind energy where they can [Application P 2-11 etc.; Tr P 56 Line (L) 9 etc.], in reality their only serious interest appears to be hydro projects on the basis that YTG government funding is available (some of this flow through from the federal government). Let me be very clear, some of the hydro projects are, in the author's view, very good projects that should be pursued, but others, in particular Mayo B, are very questionable indeed.

Specific issues

5. Residential rate block rebalancing

The following are relevant facts and issues:

1. Yukon Energy's GRA requests an increase of \$0.0561 per kWh in the second block or run-out rate;
2. The reduction in the cost of fuel since the filing of the GRA [UCG-YEC-1-62(a)] has reduced the cost of diesel generation by twice the above amount per kWh and has thus, at least temporarily, discouraged electric heating more effectively than Yukon Energy's proposal;
3. Yukon Energy has committed to a joint COS study and Phase II Application with YECL;
4. There is a need for rate design that encourages efficiency and conservation in the use of electricity, in particular discouragement of electric heating;
5. The present lower oil prices and the upcoming joint Phase II Application will permit an orderly and timely review of all aspects of residential and General Service rate design;
6. Yukon Energy's proposal will send a higher cost signal to only about 16% of all residential bills [Tr P 393 L 13-21], about 70% of residential bills will get a full lower cost signal (opposite the intended signal), and the other 14% will get a small lower cost signal;
7. The significant subsidization of Yukon Energy's CSTP by YDC and YTG and the resultant overall reduction in residential consumer costs (vs. an increase without these subsidies) makes it very difficult to send the appropriate marginal diesel cost signals to customers without undervaluing the first block of monthly energy consumption (up to 1000 kWh) and sending the opposite message to the vast majority of retail residential customers. Without this subsidization it would have been far easier to send Yukon Energy's desired signals; and
8. Yukon Energy's plans for proceeding with CSTP Phase II and Mayo B both include very significant levels of government subsidization.

The above illustrate that the situation is anything but simple and easy. While it may appear easy simply to increase the retail residential runoff rate to send out a cost efficiency signal, this has the effect of sending the exact opposite message to the vast majority of customers. Given the reality of the OIC environment governing rates, the reality of heavy YDC and YTG project subsidies, and the rapidly dwindling hydro surplus, designing meaningful rates to reflect marginal diesel costs that encourage efficiency and conservation without encouraging wasteful behaviour among the majority of residential customers is going to be very difficult.

The reduced fuel prices being experienced at present compared to prices assumed in the Application provide twice the disincentive to electric heating Yukon Energy was looking for, and provide a window of opportunity to review residential and other rate structures in a rational, orderly and thorough manner.

Recommendation: That the Board deny Yukon Energy's request to increase the residential run-out (or second block) rates until a Phase II Application addresses the matter of rate design for all customer classes.

6. CSTP Phase I

The CSTP Phase I project was completed at a final cost of \$29.684 Million excluding the Minto Spur line compared to the 20 Year Resource Plan hearing estimate of \$22.6 million. The level of scrutiny the project was subjected to in the hearing seemed to be very limited.

From IRs we learned that the CSTP by YESAB to make scope changes which resulted in increased costs and we also learned that Yukon Energy made some scope changes (reductions) to the project substations to reduce costs [YECL-YEC-1-9]. At least one of the scope reductions (the Pelly Crossing substation) deferred costs to Phase II of the project. Due to the increased overall project costs the benefits to ratepayers was not as large as anticipated in the earlier stages of project planning. However, Yukon Energy still credits the project with savings to Yukon's ratepayers [Tr P 25, L 16], and says that absent the CSTP there would have been a rate increase of about 3% [Tr P 31, L 1-7].

Absent from the discussion of project benefits is the effect of YDC and YTG funding on the project's benefits. It is the authors view that the level of scrutiny was limited owing to the fact that the ratepayers (excluding the industrial customer who did pay a fair share of the project costs) were only asked to contribute \$3.744 million towards the project. The reason for this modest contribution is a \$7 million contribution from YDC and \$10.45 million in contributions from YTG [UCG-YEC-1-73]. A calculation shows that the \$17.45 million if not received as contributions would have required an increase in revenue requirement of about \$1.6 million per year as it would have been in ratebase, equivalent to about a 4% increase in rates. Given the approximate 3.5% reduction in rates that were actually realized with the subsidy, we can conclude that there would have been a small increase in rates due to the project absent the project subsidies. Still a very healthy project that the author believes strongly should have been done.

The claimed rate reductions as a benefit of the project [Tr P 25 L 16-21] are in fact a benefit of project subsidies by YDC and YTG. And now Yukon Energy is complaining that these rate reductions are sending the wrong cost efficiency signals to the consumers [Tr P 38 to 39]. Yukon Energy cannot realistically expect to both seek rate reductions through parent company and owner contributions and at the same time expect to increase rates to send meaningful cost efficiency signals to ratepayers. The two are mutually exclusive.

The exact same issues are developing with the Mayo B project, which is discussed separately later.

Recommendation: That the Board orders Yukon Energy to write letters to its parent company, YDC, and to its ultimate owner, YTG, informing them that significant subsidy levels will limit Yukon Energy's ability to send meaningful cost efficiency signals to retail consumers in compliance with OIC 1995/90; and that the Board informs its minister of the same issue.

7. Mayo B

Yukon Energy is projecting to spend about \$8.2 million on Mayo B in the test years [Application P 5-20]. The present estimate to bring the 5 to 6 MW and 38.4 GWh per year project to fruition is \$120 million [YUB-YEC-1-38(a)]. This excludes the estimated \$40 million to complete CSTP Phase II which is a separate project even though it would be required to make Mayo B useful to the WAF grid [Tr P 204 to 205]. The following is a list of relevant points with respect to this project:

1. Capital cost estimate without transmission is \$120 million;
2. Capital cost estimate of CSTP Phase II is \$40 million;
3. Cost of energy related to capital cost only in the early years of the project can be calculated to be in the order of \$0.30 per kWh, with all O&M costs included this is likely closer to \$0.35 per kWh;
4. Yukon Energy indicates that the levelized cost of energy (LCOE) over the life of the project would be about \$0.14 to \$0.18 per kWh [YECL-YEC-1-5 Revised];
5. If the CSTP capital cost is added to the project, the cost of energy would increase by about \$0.10 per kWh in the early years bringing the total cost of energy to about \$0.40 in the early years;
6. Yukon Energy estimated that at the time of the filing of the GRA the marginal cost of diesel energy was about \$0.37 per kWh [Application P 6 and YUB-YEC-1-38];
7. Yukon Energy indicates that they would not do this project (nor the CSTP Phase II) without significant capital contributions to bring the LCOE down to \$0.08 to \$0.10 per kWh because the retail consumers could not afford this cost.

Yukon Energy is going about this project with a great sense of urgency yet the cost of diesel energy at its peak in 2008 was lower than the projected cost of energy from this project, including the necessary transmission, in its early years absent the hoped for subsidies. So why the sense of urgency, we appear to have nothing to lose with respect to the cost of diesel energy which is at present substantially lower than the cost of energy in the early years of the project?

How does Yukon Energy know or how do the ratepayers know if this is the most cost effective supply option if Yukon Energy has not in any seriousness considered DSM, or issued an RFP for IPP power projects, or in any serious considered wind energy?

If significant government subsidy money is available for power projects why not spend it on the most cost effective projects rather than on the first one that comes to mind? Are government subsidies available only for Mayo B and no other projects? If so, this is significantly distorting good judgment and, in all likelihood, the ratepayer's best interests.

Recommendation: That the Board orders Yukon Energy to seriously examine alongside its present list of projects all other power supply alternatives (including serious DSM, IPP power projects, wind energy, short term modest amounts of diesel energy), and combinations thereof, and to come back before the Board with detailed

cost-benefit analyses of all alternatives and mixes of alternatives prior to any construction commitments on Mayo B.

Recommendation: That the Board orders Yukon Energy to consider the likelihood, timing, and duration of the potential industrial electrical loads at Alexco and Western Copper in the above cost benefit analyses.

Recommendation: That the Board orders Yukon Energy to require the industrial customers to make their fair contributions to these projects in the form of direct capital contributions or within their rate structures.

8. Wind power generation

Wind energy is more abundant in winter than in summer unlike virtually any other form of renewable generation available in Yukon. Wind energy projects can also be built in about 2 years from permitting and can be built at any scale and expanded as desired, yet we see no budget for proceeding with wind energy, and no budget for permitting the wind energy project site. Yukon Energy has had a prefeasibility study on a wind energy project done but has chosen not to put it on the record. The only hint of the results of this study comes from cross examination where it is said that "...the price might be a little bit cheaper ..." [Tr P 471 L 3-4], perhaps the study would embarrass Yukon Energy. Despite spending millions of dollars on various projects we see nothing in the deferred costs budget that looks at keeping the options open. Yet Yukon Energy claims to be looking at wind energy seriously [Tr P 467 L 14-19].

The existing wind demonstration project is low on the maintenance and operating priority list [LE-YEC-1-29], unlike the hydro plants it is not connected to the SCADA system (and Yukon Energy has no plans to do so [LE-YEC-1-28]) to reduce down time, and Yukon Energy has not contacted any of the companies in North America that specialize in operating and maintaining wind power projects [Tr P 466 L 7-12, Undertaking 17 response May 15]. These clearly are not the actions of a company that is taking seriously the possibility of wind power generation; we are simply getting window dressing. Yukon Energy wants it to appear that they are looking at wind energy without really doing so.

A SCADA connection at \$250,000 [Tr P 466 L 17-23 Undertaking 18 and response dated May 15] would be economic (under \$0.20 per kWh LCOE for a 10 year amortization) if only 200,000 kWh per year more were produced.

Yukon Energy now has (or is about to get) an expensive tracked vehicle capable of operating in the coldest weather [Tr P 491 to 493] that could also be used for wind turbine maintenance personnel in winter.

Yukon Energy claims to spend \$54,000 to 55,000 per year on labour [Tr P 355 L 1 Undertaking 10 and response dated May 15], that is about 0.5 FTE. This must consist largely of fixed allocations to the wind project because the turbines are not operating for weeks or months at a time in winter, there is simply no way 0.5 FTE is being spent on the turbines.

Contrary to Yukon Energy's claim that they are taking wind energy seriously [LE-YECL-1-61; Tr P 467 L 14-19] the information that Yukon Energy is disseminating in public is designed to discredit and discount wind energy generation. They promulgate numbers in the media that compare 25 to 50 year old depreciated (and subsidized) hydro facilities with the alleged cost of a demonstration project that is being neglected and as though \$2.3 of the original \$2.8 million was not gifted to Yukon Energy in the first place [Tr P 468 to 472 and undertakings 18 and 19 and responses dated May 15]. And they use this "apples to firewood" comparison to try to show that wind energy is not a realistic option.

With all the mixed messages from Yukon Energy (an interpretation charitable to Yukon Energy) it is difficult to know what they really think or believe about wind power. We do know that in 2005 the Board approved energy production from the wind turbines was 1,125 MWh, and actual production from 2005 to 2008 was 890, 600, 362, and 437 MWh respectively [Application page 2-19, Table 2.5, and updated information]. This is a dismal record and trend. The only way to get past this poor performance is to require Yukon Energy to operate their existing wind plant seriously, but without micro managing, is to require a certain level of production, say 1,000 MWh from the existing turbines (which is well below the approved 2005 generation of 1,125 MWh) and to provide them with an incentive to achieve it. They can figure out how to get there.

Canadian based costs inflated substantially for increased Yukon costs suggests that a wind project producing the same annual energy as Mayo B could be built at about half the capital cost of Mayo B. A conservative estimate of wind power generation from a reasonable size wind farm (operated with the same diligence as a hydro project) at a suitable site near Whitehorse would produce energy at about 2/3 the cost of Mayo B based on the Mayo B numbers provided by Yukon Energy (even ignoring the Mayo B transmission cost). Yukon Energy should be instructed to proceed with seriously advancing a possible wind project in parallel with Mayo B.

Recommendation: That the Board orders Yukon Energy to use a forecast wind generation of 1,000 MWh per year and in any year when they do not achieve this the difference in peaking diesel generation costs is to be disallowed.

Recommendation: That the Board orders Yukon Energy to proceed immediately with a YESAB permit application for the wind power site on which the prefeasibility was prepared and to specifically include a wind project capable of producing the same annual of energy as Mayo B in the RFP for IPP projects (see separate recommendation).

9. Independent Power Producers (IPP) policy

Yukon Energy confirmed that it does not have an IPP policy in place [YUB-YEC-1-27(c)] and in cross examination indicated that this was in some respects a good thing because this enables them to consider all options brought to them [Tr P 569 to 572]. The reality is that despite the sense of urgency in identifying new power supply projects Yukon Energy has done nothing to look for or encourage IPP projects that might be competitive with their own identified projects. Why they have not done so is a mystery, one would think that if they were urgently looking for new power supplies they would

have issued an Request for Proposals or a Request for Expressions of Interest a year or more ago.

Recommendation: That the Board orders Yukon Energy to issue an RFP for IPP power supplies within two months of the order being issued, to proceed with any cost effective projects, and to report back to the Board on the results of the RFP and Yukon Energy's actions with respect thereto at the next GRA.

10. Secondary sales

Based on the evidence it is apparent that there is significantly more potential for secondary sales in the summer time, and probably in the shoulder months, than has been stated by Yukon Energy. Repeatedly when asked about the potential secondary sales they provide numbers of potential sales to existing customers and not what they could be selling if they had the load [UCG-YEC-1-29(b), YECL-YEC-1-23(b), Tr P 460 to 462], but they do not appear to be soliciting additional summer secondary sales load.

As load grows we must ensure that Yukon Energy does not use water from Aishihik storage to serve secondary sales loads, water that would otherwise provide useful energy for servicing primary sales at a future time. This is particularly important while water license restrictions remain in place.

Recommendation: That the Board orders Yukon Energy to continue to solicit summer secondary sales loads.

Recommendation: That the Board orders Yukon Energy not to use water from storage in Aishihik Lake to generate power for secondary sales unless there is a less than 30% probability that this water could not be used for generating power for primary sales either at the time consideration is being given to the generation or at some future time.

11. Demand Side Management (DSM)

As illustrated earlier, Yukon Energy believes that we are in urgent need of more power supply. However, Yukon Energy has not spent anything on DSM initiatives [Tr P 472 L 4-9] but has passed the buck to government [LE-YEC-1-20; UCG-YEC-1-20]. One of Yukon Energy's witnesses indicated that Manitoba Hydro claims to have had success with good advertising campaigns [Tr P 275 L 9-15]. The Yukon Energy witnesses also said that there is a lead time to getting results and these are achieved over time [Tr P 282 L 7-24]. Yukon Energy has said that they would work with YECL on a DSM proposal for the next GRA as ordered by the Board [UCG-YEC-1-20]. There is no credible reason why Yukon Energy has not proceeded sooner on its own. Waiting for the next GRA, which may yet be years away, before starting is not acceptable.

Recommendation: That the Board Orders Yukon Energy to provide a contribution of \$100,000 to the Energy Solutions Centre for winter focused electrical energy conservation programming for the 2009-2010 winter.

Recommendation: That the Board orders Yukon Energy to immediately start a program of internal electrical energy conservation focused on winter savings.

Recommendation: That the Board orders Yukon Energy to prepare (with YECL) programs to increase summer primary sales (air conditioning etc.).

Recommendation: That the Board orders Yukon Energy to prepare a program to increase summer secondary sales.

12. Yukon Energy internal DSM

In response to different IRs Yukon Energy variously says that they are doing internal DSM [LE-YEC-1-61] and are not looking at reducing losses (which includes internal electricity consumption) [YECL-YEC-1-24(b)]. It also seems questionable whether senior Yukon Energy officials are aware that significant amounts of electricity are used in their own facilities such as in trash racks and spill gates [LE-YEC-1-25, and Tr P 477 to 478].

Recommendation: That the Board orders Yukon Energy to formalize and institute an internal DSM program.

13. Transformers

Yukon Energy described their transformer specification and purchasing standards in response to LE-YEC-1-53. In cross examination Yukon Energy is requested to provide an example for a large transformer and agreed to do so [Tr P 502 L 3-4, Undertaking 22]. The response to the undertaking provided the specifications for small distribution transformers. Notable on the specification is that energy is valued at \$0.105 per kWh, about the same as the present retail runoff rate. Yukon Energy wants to raise the runoff retail rates towards \$0.37 per kWh, the marginal diesel cost at the time of the GRA filing, to promote economy and efficiency. Yet Yukon Energy is buying transformers with a life of about 30 years based on energy rates well below the marginal cost of diesel? Why would Yukon Energy not use the same figure as they desire in runoff rates in specifying their own transformers, something entirely within their control? This is a very simple internal DSM opportunity that is being lost.

Recommendation: That the Board orders Yukon Energy (and YECL if possible) to use the marginal cost of diesel as the value of energy when specifying transformers and any other large piece of electrical equipment.

14. CSTP Phase II

This transmission project would be required if the Mayo B hydro project was to proceed, and if the Alexco industrial load does not proceed it could bring some surplus hydro from the Mayo – Dawson City system to the WAF system. However at an estimated \$40 million it is not likely to be cost effective to ratepayers under any of these circumstances. Yukon Energy has indicated that they would not proceed with this project without contributions of about \$35 million [Tr P 219 L 14-20].

In the author's view this is a good piece of infrastructure that will have long term long term benefits. It is also the author's view that the ratepayers, including industrial customers, should pay a reasonable portion of such a project and that government contributions are more appropriate here than in energy supply projects, and should only cover the portion that would not be economically justifiable under normal regulated utility principles. High levels of YTG or YDC subsidies should not be used as a means to lower power rates generally as was clearly the case with CSTP Phase I. Very high levels of subsidies create problems with respect to the efficient use of power as discussed elsewhere in this document.

Recommendation: That the Board orders Yukon Energy to proceed with this project if the industrial electrical loads and power supply projects warrant it, with any costs over and above those that the retail ratepayers should justifiably cover under normal utility regulation principles is covered by others (such as Government and industrial customers).

15. Aishihik third turbine

Yukon Energy is proceeding with the design and installation of the third turbine at the Aishihik power plant. This turbine will have a capacity of about 7 MW and provide about 5 GWh per year of long term average energy to the grid [Tr P465 L 8-10]. The estimated installed cost is \$9 million. This is less than one tenth the cost of capacity of Mayo B is and the energy is almost half the cost of energy from Mayo B even though its purpose is primarily capacity (the reduction of winter peaking diesel). It will improve the utilization of hydro energy on the WAF grid substantially. It is the author's view that this is a very cost effective project for ratepayers and should be completed as planned.

YTG has chosen to redirect \$5 million of federal money into this project and YTG's recent budget indicates that they may put an additional \$4.25 million into the project. In the author's view funding of an already economic project is simply a way of further subsidizing (lowering) power rates for ratepayers. This will further undermine the efforts of Yukon Energy and OIC 1995/90 with aims to improve the efficiency of power use by making it even more difficult to send appropriate and meaningful price signals to consumers. See earlier discussion on the subject.

Recommendation: That the Board orders Yukon Energy to proceed with this project.

16. Gladstone diversion, Atlin Lake winter storage, and Marsh Lake fall-winter storage

These three projects have the potential to add cost effective hydro energy to the WAF system through the existing hydro plants. The Atlin winter storage and Marsh Lake fall-winter storage projects would predominantly supply energy in the winter when it is needed most and also have the potential to add a small amount of useful winter capacity. These projects should continue to be pursued.

Recommendation: That the Board orders Yukon Energy to continue to advance these projects.

17. Aishihik Hydro plant water license

In 2007 a fisheries assessment study was done on Aishihik Lake [LE-YEC-1-64] as a requirement of the water license. To date no decision has been reached as to whether the Lake Whitefish stock is healthy enough to lift the storage restrictions presently in place. These restrictions limit the long term average hydro energy available from the plant by about 6 GWh per year [LE-YEC-1-64]. Yukon Energy's advisors believe that the Lake Whitefish population is healthy and that there is no further need for the storage range restriction.

Recommendation: That the Board orders Yukon Energy to continue to pursue the lifting of the water storage range restriction presently imposed by the water license.

18. Return on Equity (ROE)

Leading Edge believes that Yukon Energy is less risky than it makes itself out to be because of the high level of major project subsidization that they seem to be enjoying. For this reason the ROE should probably be less than the 52 basis point upward adjustment from the BCUC low risk utility, however by OIC Yukon Energy's return is already reduced by 50 basis points. From our perspective Yukon Energy must remain a healthy utility, in particular because the dividends it pays to YDC are generally available to Yukon Energy as very cost effective loans, thus we recommend accepting the ROE proposed by Yukon Energy.

Recommendation: That the Board accepts Yukon Energy's proposed ROE.

19. Staffing Levels

Yukon Energy staffing growth has been increasing more rapidly than necessary with a growth of about 18.9% from 2005 to 2009 [LE-YEC-1-32] compared to about the same load growth, however the load growth was virtually entirely to two customers – YECL and the Minto mine. Are there no economies of scale? In addition annual labour rate increases are in excess of general inflation rates [UCG-YEC-1-35(b) Revised]. It seems that we have the reverse of economies of scale at work, a trend which should not be allowed to continue. However, we do not have any specific things to point at to say this or that must be denied based on this or that justification.

Recommendation: That the Board orders Yukon Energy to expand the employee and cost performance indicator information presented in the annual KPI report, and to provide comparative CEA information and a 5 year running average of each indicator.

20. TD Canada Trust Note

Yukon Energy has made it clear that the penalties for terminating this note would make it imprudent to do so [Tr P 257 L15 Undertaking 6 and response dated May 15]. However, the interest rate charged is high and when the note comes due in 2011 it should be paid out and refinanced at the lowest available interest rate – preferably with YDC.

Recommendation: That the Board orders Yukon Energy to refinance this note at the lowest available interest rate should it become due before Yukon Energy is next before the Board with a GRA.

21. Minto diesels

The Minto diesel generators that Yukon Energy is purchasing are high speed (1800 RPM) units [Tr P 530 L 2-4]. Although Yukon Energy has compared them extensively to the cost of refurbishing the Mirrlees diesel generators they are in practice quite different. The high speed generators are more suited to back-up capacity and peaking operations than they are to baseload generators. The low speed (believed to be 900 RPM) Mirrlees generators are not well suited to peaking use (frequent starting and stopping) but are well suited to baseload generation.

Recommendation: That the Board orders Yukon Energy to clearly differentiate between peaking diesels and baseload diesel generators when bringing to the Board issues related to diesel generation.

22. Vehicle purchase costs 2008

The evidence on the record shows that Yukon Energy's vehicle purchases in 2008 were well below the projected costs [Application P 5-15, and UCG-YEC-1-83].

Recommendation: That the Board orders Yukon Energy to prepare a compliance filing that provides all relevant updates to both 2008 and 2009 information as part of their revenue requirement recalculation.

23. Tracked vehicle purchase

Yukon Energy ordered a tracked transmission line maintenance vehicle in 2008 for delivery in 2009 [Application P 5-16]. Such vehicles are suitable for rugged and wet terrain as well as for deep snow conditions. According to Yukon Energy this vehicle is also equipped to allow transmission line maintenance and repair in very cold winter weather [Tr P 492 to 493]. A cost - benefit analysis has shown that purchasing this vehicle is cost effective; however, Yukon Energy is uncertain what percentage of time it will actually be in use. Since this vehicle could, in the author's view be used to service Yukon Energy's wind turbines in the winter by providing access under deep snow and cold weather conditions as well as heated cab space for the workers to warm up as necessary, its purchase should be approved subject to this condition.

Recommendation: That the Board approves the purchase of the tracked vehicle and orders to it being made available for winter servicing of the wind turbines on Haeckel Hill when not needed more urgently elsewhere.

24. Spill regulation and Electronic Document Management

From IR responses [LE-YEC-1-56] and from the hearing [Tr P 502 L 6-25] we have learned that the spill regulation project is behind schedule but that Yukon Energy still expects to complete it in 2009.

From IR responses [LE-YEC-1-58] and the hearing [Tr P 503 L2-14] we have learned that the Electronic Document Management project also appears to be behind schedule.

Recommendation: That the Board orders Yukon Energy to prepare a Compliance filing which provides realistic updates of all projects and anticipated costs.

25. Deferred costs

The projected 2009 deferred study cost of \$6.8 million has been reduced to an estimated \$4.3 million [YUB-YEC-1-38(b)(iii), and Tr. P 506 L 6-16].

Recommendation: That the Board orders Yukon Energy to prepare a Compliance filing which provides realistic updates of all projects and anticipated costs.

Respectfully submitted,

John Maissan
Leading Edge Projects
May 22, 2009