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March 26<sup>th</sup>, 2010

**Taltson Hydro Expansion Project**  
**Re: Final Position on Crossing the Lockhart River**

In a letter to Parties dated March 15<sup>th</sup>, 2010, the Review Board stated that “Dezé has identified various alternatives around the easternmost tip of Great Slave Lake, and now has information from parties that may help it identify where it proposes to run the transmission line and how it proposes to do so. Parties and the Review Board require clarity on this.” This letter is our response to the Board’s request.

**Preferred and Proposed Option for Crossing the Lockhart River**

Since the submission of the DAR, and throughout the Public Hearings, Dézé has maintained that the routing of the transmission line must use the East Arm Route to ensure a reliable source of electricity to its customers at a price competitive with diesel generation. None of the alternatives to the East Arm investigated, including the Simpson Island Route, offer a viable project.

It was known from the outset of the Taltson Project that crossing the Lockhart River was a sensitive issue, and Dézé’s proposed solution at the time was to “... establish a routing committee comprised of representatives from all Parties who have expressed an interest in the specific crossing option to be chosen, to determine which of the options presented can be implemented and the mitigative measures necessary to reduce or eliminate any adverse effects.” (February 22<sup>nd</sup>, 2010, page 5 of the Closing Remarks). To this point unfortunately we have been unable to establish this committee, but it remains our hope to do so. Dézé has strived to be responsive to concerns raised during the environmental assessment, and has provided the Board with several examples of how the Project has changed in response to such concerns. Proposing such a committee to address the Lockhart River crossing is a further example.

Dézé’s preferred option for the transmission line remains an inland crossing of the Lockhart River between Artillery Lake and Great Slave Lake. This is the most reliable and feasible option, with the least effect to the viewscape of Great Slave Lake or the proposed East Arm Park. One possible inland



crossing, and the method of crossing (overland towers), is described in the DAR, and illustrated in Figure 1 attached to this letter, although the exact crossing point of the Lockhart River could be moved. Consistent with its commitments, Dezé would welcome input from the above-mentioned routing committee to find the most suitable inland alignment.

During the Public Hearings, the Lutsel K'e Dene First Nation (LKDFN) stated that a transmission line crossing the Lockhart River between Artillery Lake and Great Slave Lake (Desnedhe Che) was unacceptable. In response, Dezé proposed mitigation in the form of the Reliance adjustment that would cross the peninsula from Maufelly Point to Fairchild Point (as described in a submission to the public registry on January 26<sup>th</sup> and illustrated in Figure 1) and did not cross Desnedhe Che. As several parties (including Parks Canada and Messrs. Olesen, Catling, Decorby and Griffith) expressed reasonable concerns about the Reliance adjustment, Dezé proposed the further mitigation of a marine cable from Maufelly Point to Fairchild Point (described in a submission to the public registry on February 11<sup>th</sup>, and conceptually illustrated in Figure 2 attached). Information collected for Dezé Energy has since confirmed the feasibility of a marine cable from Maufelly Point to Fairchild Point.

Dezé has held meetings in the past week with various parties identified by the Review Board as having an interest in the Desnedhe Che and Reliance areas. Dezé also held meetings with the LKDFN Chief and Council on March 24<sup>th</sup>, 2010, to discuss the Lockhart River crossing issue. During this meeting, Dezé indicated that an inland alignment across the Lockhart River is preferable to the more costly, less reliable and more visible Reliance adjustment. As Dezé recognizes that the inland crossing of Desnedhe Che is a sacred area to the people of Lutsel K'e, various forms of compensation were discussed to mitigate any cultural effects. However, the LKDFN made it clear during this meeting that neither the Desnedhe Che crossing nor the Reliance adjustments were acceptable, and that both would be opposed. As such, it appears that there is little to be gained by the Reliance adjustment, particularly as it relates to addressing cultural and spiritual concerns.

At the current time, Dezé is ill equipped to objectively evaluate whether one particular route in the East Arm area carries more cultural or spiritual significance than another, as such information is not always shared with developers. Dezé is however able to assess technical reliability, design complexity, capital cost and to a lesser degree, aesthetics of various routing options. Although the evaluation of the Reliance adjustment was a worthwhile exercise to exhaust all possible options, the process has re-affirmed our original analysis. Dezé is therefore returning to the inland crossing of the Lockhart River across the Desnedhe Che area as the proposed and preferred alignment. As stated above, the exact point of the crossing the Lockhart River may be moved, and Dezé continues to propose a routing committee to suggest the most suitable crossing point between Artillery Lake and Great Slave Lake.

### **Proposed Lockhart River Crossing Location and Rationale**

The site of the Lockhart River crossing as originally proposed (and illustrated in Figure 1) is approximately one kilometer upstream of Tyrell Falls, and seven kilometers downstream of Parry Falls (also known as the Old Lady or Ts'ankui Theda). Although the transmission line could cross at almost any point along the Lockhart River, this particular site was chosen for several reasons. It offers a relatively short route through the proposed East Arm Park area and is upstream of Tyrell Falls, making it unreachable by boat from Great Slave Lake. It is also a forested area, which reduces aesthetic impacts, and far from Ts'ankui Theda. It was in hope of mitigating some of the anticipated concerns that this crossing location was selected by Dezé.

## Reliance Adjustment Option Status

As noted above, the Reliance adjustment was proposed by Dezé earlier in the environmental assessment process to mitigate effects of the Desnedhe Che crossing and the adverse cultural and spiritual impacts brought forward by the LKDFN. The Reliance adjustment includes a transmission line along the length of Maufelly Point and Fairchild Point, with a submarine crossing between the two (Figure 2). Dezé offered the Reliance adjustment as a viable and feasible measure should the Board be persuaded to recommend approval of the Project under the provisions of Section 128 (1) (b) (ii) of the *Mackenzie Valley Resource Management Act* subject to the alternative routing being implemented as a measure “to prevent ... significant adverse impact”.

We believe that a transmission line crossing the Lockhart River at any point between Artillery Lake and Maufelly Point would not lead to significant environmental concerns (i.e., concerns pertaining to the land, air, water, organic and inorganic matter or living organisms), although surveys and studies will be required to confirm the most suitable mitigation for the crossing point selected. The remaining issues are cultural, spiritual and aesthetic.

Although the proposed Lockhart River Crossing described above is the preferred option, Dezé provides, in the attached report entitled Clarification and New Details regarding the Reliance Adjustment (March 19<sup>th</sup>, 2010), a clarification for the Board and Parties, as per the Board’s March 15<sup>th</sup> request. However, to confirm, since the meeting with the LKDFN on 24 March, 2010, the Reliance adjustment is neither the preferred nor the proposed alignment.

## Closing

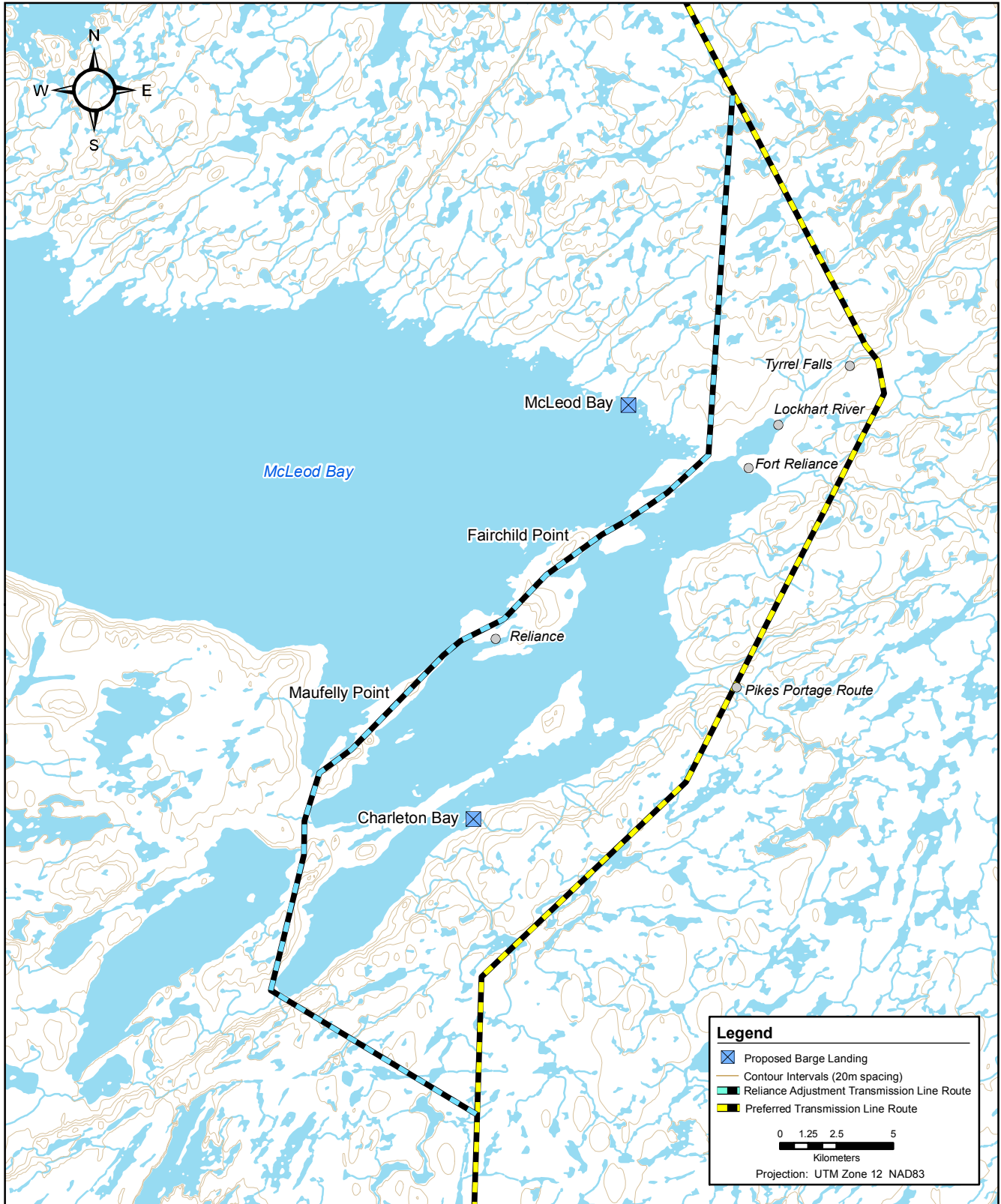
Despite Dezé’s efforts to reach a solution acceptable to all parties, it has become clear that no East Arm alignment can do so. As such, Dezé has returned to our original proposal, which we believe offers the least impacts and is the most reasonable compromise between environmental and cultural concerns, while maintaining the economic viability and reliability of the Project. Dezé recognizes the concerns from the LKDFN regarding the Desnedhe Che area, and during the Public Hearings Dezé suggested means of mitigating any impacts to the culture of the people of Lutsel K’e. These offers remain, regardless of the LKDFN position on the Taltson Project.

Dezé hopes that this submission demonstrates Dezé’s commitment to working with the Parties to arrive at a viable solution to this issue. Please contact me at (867) 766-5078 or email [DGrabke@nwtec.ca](mailto:DGrabke@nwtec.ca) if you have any questions or require any clarification on the information presented in this submission.

Yours Sincerely,



Dan Grabke  
Managing Director

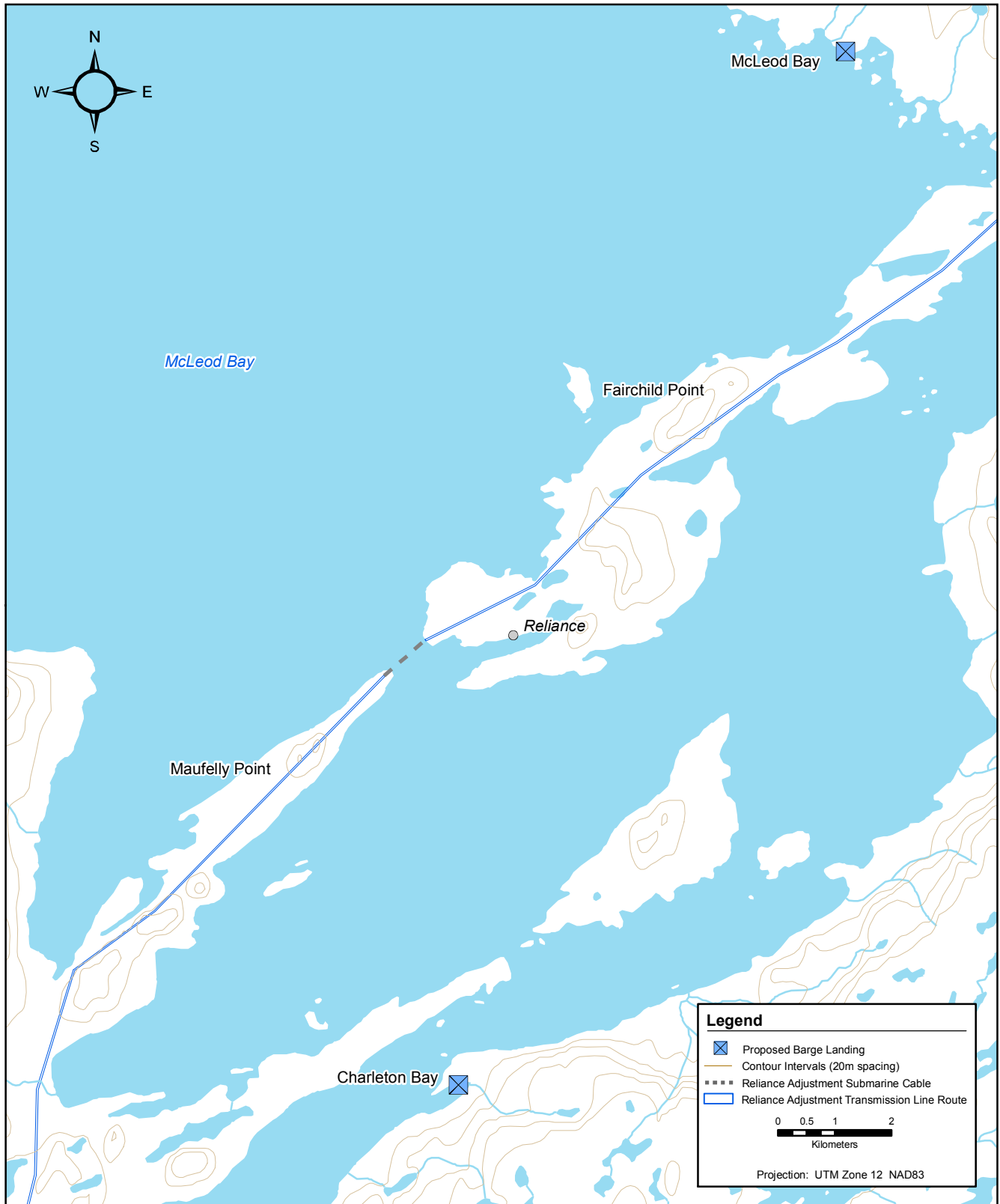


**TALTSON**

Hydroelectric Expansion Project

**Preferred Transmission Line Route with Conceptual Reliance Adjustment**

**Figure 1**



**TALTSON**

Hydroelectric Expansion Project

**Detail of the Conceptual Reliance Adjustment with Submarine Crossing**

**Figure 2**

## DEZÉ ENERGY

### Clarification and New Details regarding the Reliance Adjustment

March 19<sup>th</sup>, 2010

## Reliance Adjustment

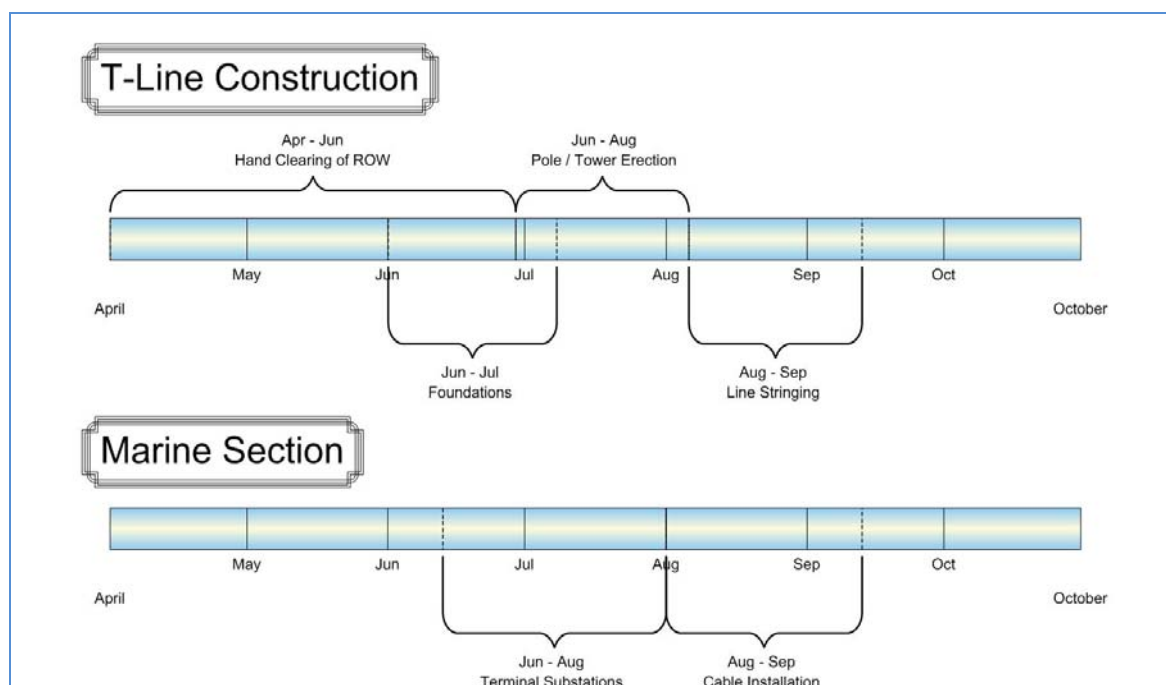
The Reliance adjustment was proposed by Dezé earlier in the environmental assessment process to mitigate effects of the Desnedhe Che crossing and the adverse cultural and spiritual impacts brought forward by the LKDFN. The Reliance adjustment includes an aerial transmission line along the length of Maufelly Point and Fairchild Point, with a submarine crossing between the two.

## Reliance Adjustment Construction

Preliminary investigations of the Reliance adjustment indicate that the alignment is technically feasible with acceptable capital costs. There is abundant exposed bedrock that provides good tower foundations, few geographic features to obstruct the route, and sparse forest. Further, water depths between Maufelly Point and Fairchild Point are suitable for a submarine cable. If these adjustments enter the detailed design stage, a site visit would be required to navigate any cliffs, steep hills, water bodies, or other obstructions.

The Reliance adjustment is within the larger Lake Sector of the Project. In this sector, the transmission line would be constructed during both the winter and snow-free months, using helicopter construction methods. Materials and camps would be supplied by barges on Great Slave Lake, to the McLeod Bay and Charlton Bay barge landing sites. A temporary access trail would extend from the Charlton Bay barge landing to the transmission line right of way, and then follow the transmission line. Dezé's commitment to minimize disturbance in the 1997 land withdrawal area dictates that vegetation clearing would be done by hand, and helicopter construction would also be used for most of the Reliance adjustment. Selective clearing of vegetation would be required within the transmission line right of way. The anticipated construction schedule (outlined in Figure 1) indicates that construction activity in the Reliance area could be completed in a single year, and would extend at most from April to mid-September.

Figure 1. Estimated timeline of construction activities required for the Reliance adjustment.



## **Construction of Submarine Crossing**

Installation of the submarine cable between Maufelly Point and Fairchild Point would be conducted in the summer months by barge. Two 8 x 15 metre fenced cable termination structures less than 15 metres high would be required near each of Fairchild and Maufelly Points (See Figure 4). The Northern Transportation Company Ltd. (NTCL) has a fleet of tugs and barges, which appear to have the capability to assist with assembling a custom cable laying spread from their base in Hay River. Specialized equipment such as cable tensioners, could be delivered in trucks from Edmonton to Hay River. In shallow areas and on land to the cable terminal stations, the cables may need to be buried to protect against natural hazards, particularly ice abrasion. Selection of landing sites would attempt to locate areas where excavation was easy, however the need for some rock fracturing may be unavoidable. Submarine cable would be supplied from a cable factory in Asia or Europe. Termination structure placements would require a total marine cable span of approximately 1 kilometre

## **Aesthetics**

The Reliance adjustment would be highly exposed, in an area with notable topography. The transmission line would likely be visible from both McLeod Bay and Charlton Bay. Sites of interest that may be within sight of the Reliance adjustment include Reliance, Old Fort Reliance, Trophy Lodge and the Pike's Portage trailhead. The aesthetic effects would be reduced by the use of submarine cable between Maufelly Point and Fairchild Point, although this would also require fenced cable termination structures less than 15 metres high near each of Fairchild and Maufelly Points. Dezé will also investigate the feasibility of using lower profile wood poles or weathering steel structures that may have less of an aesthetic impact than the steel lattice structures proposed for the majority of the transmission line route. The transmission line routing can also curve with topography to find the most innocuous alignment.

## **Fisheries and Aquatic Considerations**

Overland routing of the transmission line would be designed, constructed, and operated using the same mitigation measures described in the DAR. Specific mitigation applications include adherence to the DFO Operational Statement for Overhead Line Construction and adherence to Dezé's Environmental Management Plans specifically Erosion and Sediment Control. Operational Statement mitigation conditions such as designing waterbody crossings to be perpendicular where possible and minimizing vegetation removal, among other conditions, would "...avoid negative impacts to fish habitat" (DFO NWT Operational Statement V.3 2007). Construction would also adhere to DFO's Operational Statement for Underwater Cables. Mitigation such as isolation of water from any trench work would avoid negative impacts to fish and fish habitat.

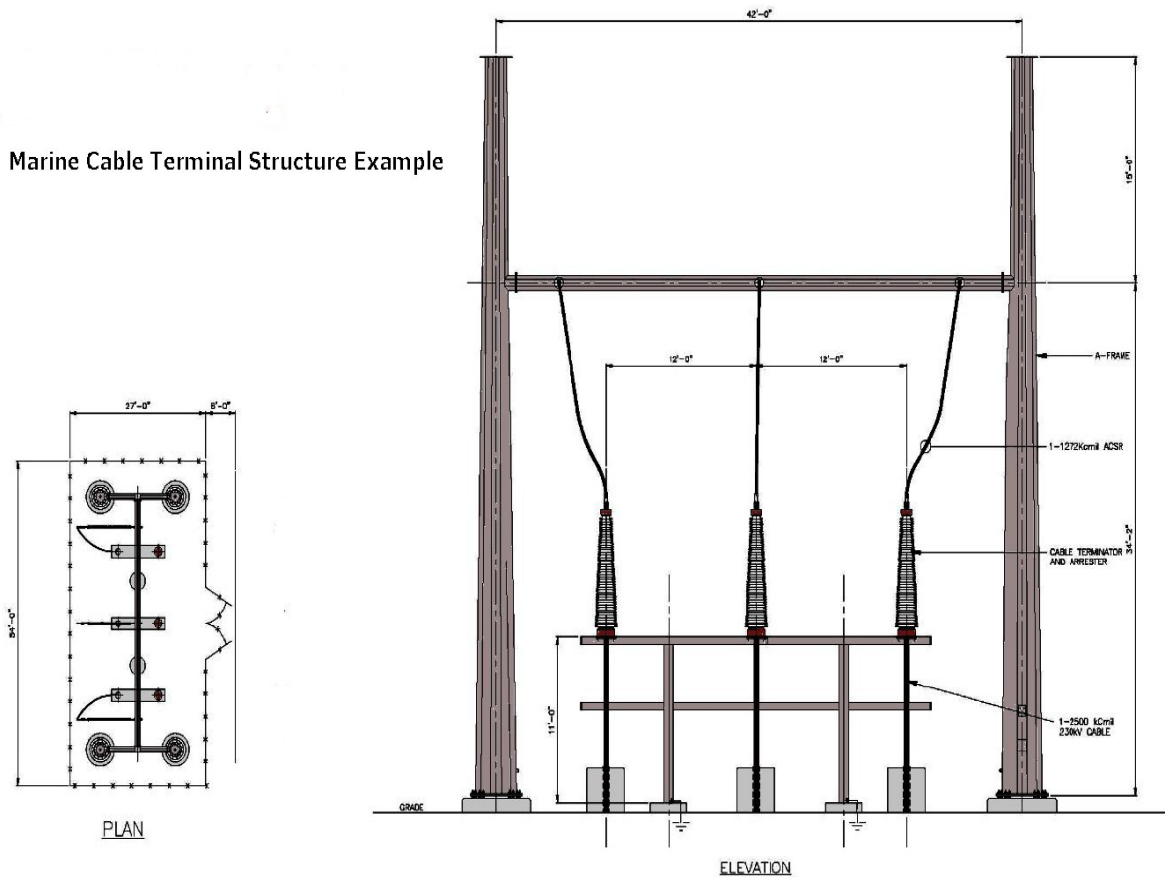
## **Advancing the Design**

Based on a preliminary environmental components review associated with the Reliance adjustment, specific information that would be gathered to proceed to detailed design include:

- archaeological assessment of the transmission line and construction access routes,
- raptor nest surveys along the route,
- engineering studies for detailed design,
- traditional knowledge gathering,
- consultation with existing users of the area, including Trophy Lodge, and
- discussions with parties, including but not limited to LKDFN and Parks Canada.

Other environmental considerations, such as effects of the Reliance adjustment to access, raptors, caribou and heritage resources are outlined in the “Supplemental Submission Adjustments to Transmission Line Route” document submitted by Dezé to the Public Registry on January 26th, 2010.

**Figure 2. Marine Cable Terminal Structure Example**



## Summary

Dezé believes that a transmission line crossing the Lockhart River at any point between Artillery Lake and Maufelly Point would not lead to significant environmental concerns (i.e., concerns pertaining to the land, air, water, organic and inorganic matter or living organisms), although surveys and studies will be required to confirm the most suitable mitigation for the crossing point selected.