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Taltson Hydro Expansion Project **Supplemental Submission – Adjustments to Transmission Line Route**

During the Public Hearings held on January 14-15, 2010, Lutsel K'e Dene First Nation (LKDFN) stated that the Desnedhe Che area is of significant cultural and spiritual importance and the proposed East Arm routing of the transmission line should not cross the Lockhart River.

As stated at the hearing, Dezé Energy Corporation (Dezé) remains committed to investigating adjustments to transmission line routing to address these concerns. In order to achieve this goal, Dezé has conducted a preliminary analysis into potential re-routing of the transmission line to find a route that would respect LKDFN concerns and avoid a crossing of the Lockhart River and disturbance to the Desnedhe Che area. This analysis determined that two possible route adjustments were possible.

Artillery Lake Adjustment

The first route adjustment consists of the transmission line veering east just past Charlton Bay and just to the south of the proposed National Park Boundary, to cross a narrow bay at the south end of Artillery Lake, then north to Gahcho Kue. This route would totally avoid the Desnedhe Che area and crossing of the Lockhart River.

Reliance Adjustment

The second route adjustment would veer west just below Charlton Bay and would cross the peninsula of land at Reliance. This route would also totally avoid the Desnedhe Che area and crossing of the Lockhart River (see Figure 1, attached).

In recent discussions, LKDFN noted that Artillery Lake is also of significant cultural and spiritual importance and that this route is not a viable option. Although Dezé has included the Artillery Lake route in its scoping of the construction and environmental effects of the Artillery and Reliance routes, Dezé does not intend to proceed with further analysis of the Artillery Lake route based on concern expressed by LKDFN. Dezé is now focusing its efforts to further evaluate the engineering, environmental and economic factors associated with the Reliance route.



In the information presented below, Dezé is providing a conceptual routing map (Figure 1) and a scoping of the construction and environmental effects of the Artillery and Reliance routes. Dezé respectfully submits that the effects assessment in the Developers' Assessment Report is largely applicable to the Reliance route. Some further studies and consultations are required to confirm this conclusion, as outlined in our submission.

Engineering Feasibility

Preliminary investigations of the Artillery Lake and Reliance adjustments, using topographic maps and our previous experience in the region, indicate that the alignments may be feasible. There is abundant exposed bedrock that provides good tower foundations, few geographic features to obstruct the route, and sparse forest. 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.

Construction Methods

The region of the proposed adjustments includes two construction sectors, referred to as the Lake Sector (extending approximately from the Snowdrift River north to the treeline), and the Northern Sector (all components north of the treeline).

The Lake Sector would be constructed during both the winter and snow-free months, using a combination of winter roads and 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. Selective clearing of vegetation would be required within the transmission line right of way.

The Northern Sector begins approximately on the northern boundary of the 1997 land withdrawal area, near the treeline. Construction in the Northern Sector would be during winter, and accessed via the Tibbitt to Contwoyto winter road. The Treeline Staging Area is the nearest staging area, accessible by winter road from the Gahcho Kué Project. Construction crews would be accommodated at existing camps, such as Gahcho Kué. Temporary access trails would follow the transmission line. As the Northern Sector is largely unforested, little clearing of vegetation is anticipated for the winter road, temporary access trails, or transmission line right of way.

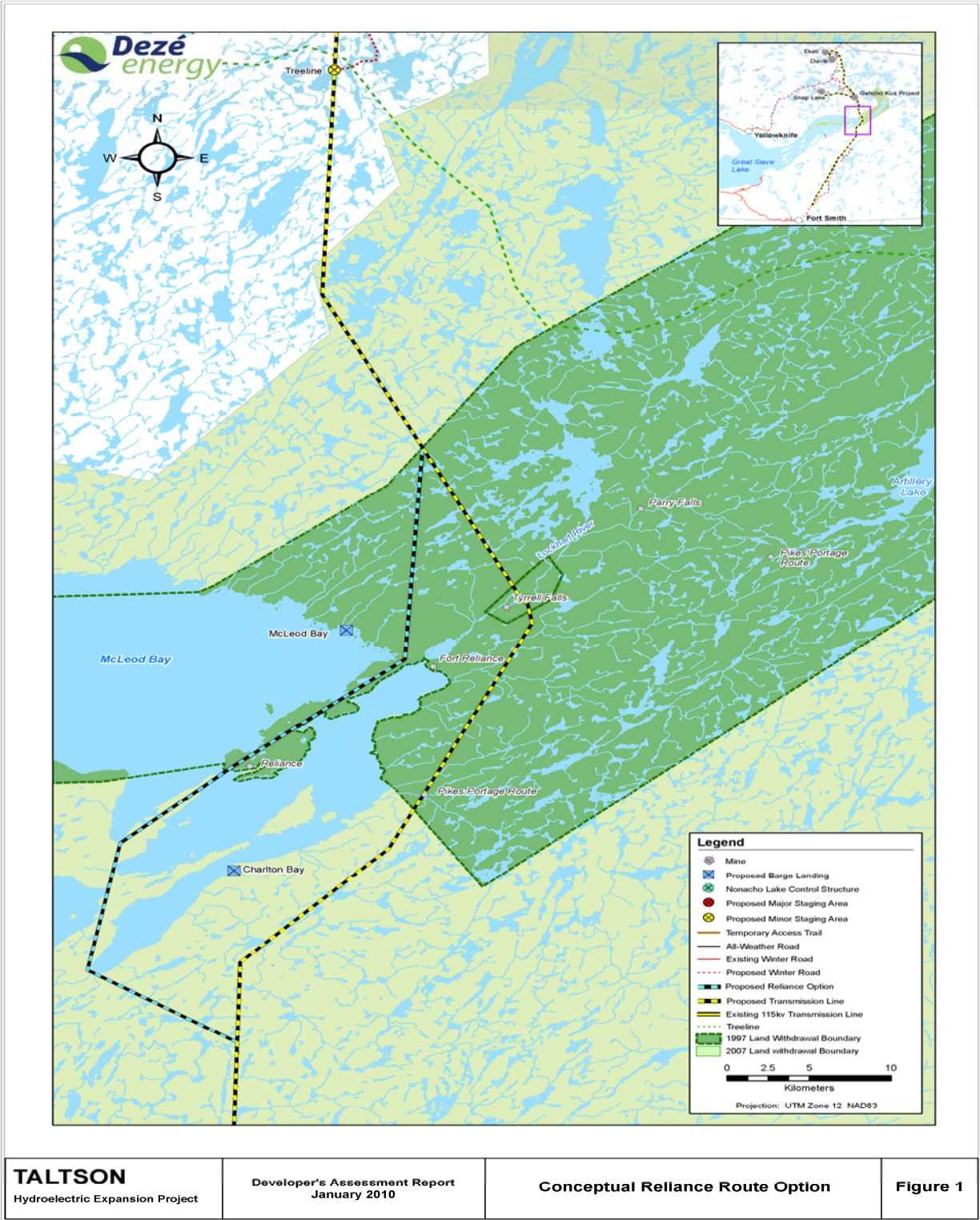
Artillery Lake Adjustment

Difficult terrain and the sensitivity of the East Arm Park and the Desnedhe Che area dictate that helicopter construction methods be predominantly used within the 1997 land withdrawal boundary (avoiding the use of temporary access trails). This will require vegetation clearing by hand and transportation of all equipment and ground crews by helicopter within this area. As such, site preparation and construction would occur primarily within the snow-free months.

Reliance Adjustment

For the proposed Reliance adjustment, difficult terrain and Dezé's commitment to minimize disturbance in the 1997 land withdrawal area dictate that vegetation clearing would be done by hand and helicopter construction would also be used for most of the Reliance adjustment. A temporary access trail would be required to link the Charlton Bay barge landing to the transmission line right of way. The Reliance adjustment is displayed in Figure 1.

Figure 1 - Conceptual Route Map for Reliance Adjustment



Environmental and Social Components

Key environmental and cultural components that may be affected by the Artillery Lake and Reliance route adjustment are discussed below.

Raptors

The East Arm of Great Slave Lake and Lockhart River areas have high potential for raptor nests. Spring or summer aerial surveys will identify raptor nests and cliffs that have raptor nesting potential. The GNWT recommends that construction activity be limited within 1.5 km of active raptor nests, so minor changes to the alignment or construction schedule may be required to avoid nesting activity. The DAR (Sections 15.4.5 and 15.4.8) and Draft Monitoring Program identify mitigation and monitoring to reduce effects to nesting raptors during construction, and these would remain applicable for the new alignment.

Caribou

To limit effects of the Project to caribou, the transmission line should:

- be as short as possible,
- avoid areas where caribou are funneled during migration due to geographic features (such as large lakes or rivers),
- limit new access, and
- avoid conflicts between construction activities and caribou.

As identified by both satellite collar information and traditional knowledge from Lutsel K'e, the Artillery Lake area is most frequently used by caribou in the fall and winter. As the Artillery Lake adjustment straddles the Lake and Northern Sectors, construction activities would occur during winter and in the snow-free seasons.

Approaches to mitigate effects to caribou during construction are outlined in the DAR (Section 12.2 and Appendix 7A) and Draft Monitoring Program. Briefly, construction schedules will be reviewed to avoid seasons and areas with a high probability of caribou presence. Monitoring will identify caribou in the vicinity of construction activity, potentially leading to immediate adjustments to the construction schedule (i.e., mobile caribou protection measures). Environmental monitors would be responsible for identifying conflicts with caribou during construction, and suggesting avoidance options.

During operation, effects to caribou are anticipated to be similar to that of the original alignment as described in the DAR (Section 12.4 and 12.5), and similar to that of the existing Snare Hydro to Yellowknife transmission line.

Archeology

The East Arm and Lockhart River are areas of relatively high archaeological potential for the Taltson Project. Archaeological surveys are required. A query of the NWT Archaeological Sites Database indicated that the Artillery Lake and Reliance adjustments are not in direct conflict with any catalogued sites. Should the archaeological survey identify a site within the right of way, minor adjustments may be required. Territorial and federal law prohibits development activities within 30 metres of a known or suspected archaeological site, and Dezé would consider this a minimum setback distance.

Aesthetics

During the Taltson Project scoping sessions, concerns were raised about the effect of the transmission line on wilderness character the aesthetics of otherwise pristine areas. The effects of the original alignment are discussed in the DAR (Section 15.10.5 and 15.10.6). Viewscape analysis could be conducted to investigate aesthetic effects from specific viewpoints.

Artillery Lake Adjustment

The Artillery Lake adjustment crosses two narrow bays at the southern extent of Artillery Lake, one of which is the outflow; the other is the end of Pike's Portage. As the Artillery Lake adjustment tends to parallel Pike's Portage, it may be visible from some points along the portage. As it is removed from the main body of Artillery Lake by approximately 4 kilometres in an area of some relief, it is not anticipated to be easily visible from the main body of Artillery Lake. Beneficially, it is not anticipated to be visible from Great Slave Lake (as the original alignment may have been from some viewpoints).

Reliance Adjustment

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. A crossing of approximately 800 m would be required on the approach to Reliance and two significant structures would be required to cross the channel between the two points of land. Dezé will also investigate the feasibility of using lower profile wood poles or weathering steel structures.

Harvesting Activities

As the vegetation clearing required for the Project is limited to narrow corridors or perforations, noticeable effects to wildlife valued components was not anticipated. As such, the DAR predicted that changes to the presence of wildlife for hunting and trapping would not be significant (Section 15.7.9). This remains a valid conclusion for the Artillery Lake and Reliance adjustments.

Access

Some vegetation clearing would be required for the transmission line right of way, and temporary access trails would be constructed for both the original alignment and proposed Artillery Lake and Reliance adjustments. In all cases, snowmobile access would be improved during construction, and after construction in some areas. Overall, effects from improved access in this area are limited because of the remoteness of the Charlton Bay camp, where access would begin. Dezé has offered to block such trails with slash and windrows, following construction, among other mitigation (see Section 15.5.4 of the DAR).

Artillery Lake Adjustment

Overall improvements to access are anticipated to be minor, as access is already available from existing trails and in treeless areas. Pike's Portage provides access from Great Slave Lake to Artillery Lake in both summer and winter. The area south of Artillery Lake and beginning approximately half way along Pike's Portage is largely treeless and navigable by snow machine. Because of the unrestricted access, it is a commonly used caribou and muskox hunting area (Pete Enzo, personal communication). Once on Artillery Lake, snow machine travel is unrestricted and shoreline of Artillery Lake is largely very open forest or treeless (including the entire southeast shoreline and the northern half of Pike's Portage). The conclusions in the DAR (Section 15.5) regarding access in this area are valid for the Artillery Lake adjustment.

Reliance Adjustment

The Reliance adjustment would place the transmission line across narrow peninsulas with significant topography, and vegetation clearing would be by hand with little use of temporary access trails. As such, the Reliance adjustment would not improve access. The conclusions in the DAR (Section 15.5) regarding access in this area are valid for the Reliance adjustment.

Other Environmental, Social and Cultural Components

Other environmental, social and cultural valued components assessed in the DAR could also be affected by the adjustment. As the Artillery Lake adjustment is longer than the original alignment, more land disturbance through clearing and construction would be required. However, the mitigation outlined in the DAR would apply and the assessment of effects presented in the DAR and confirmed during the Review Board's process remains valid.

Design Development

Based on a preliminary environmental components review associated with the conceptual adjustments, specific information that would be gathered to develop design mitigation measures, would include:

- archaeological assessment of the transmission line corridor and any trails or 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.

Dezé understands that parties can provide comments to the Board in response to this supplemental submission and that Dézé will have the opportunity to provide a response to these comments before the public registry is closed. Dézé hopes that this submission demonstrates Dézé's commitment to working with the LKDFN and other parties to arrive at a viable solution to this issue. Please contact me at (867) 766-5078 or email 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

cc. Parties to the Environmental Assessment
Dézé Energy Corporation