

ALTERNATIVE ALTERNATIVES ASSESSMENT

East Arm Route was initial proposal from Deze. It could be argued that the alternatives assessment was designed to support a foregone conclusion.

It is unclear why some potential sub-criteria were eliminated from the alternatives assessment.

For example:

It is likely that some alternatives will have more impact on barren-land caribou than others.

It is also likely that some alternatives will have more impacts on furbearers than others, as predators/ungulates employ cut-lines for travel, longer lines should have more impact.

The tables below present an alternative alternatives assessment that, with little modification from Deze's, favours another of the line routing alternatives. This is but one of many different alternative assessment scenarios that could be devised using Deze's methodology.

NOTE: Sub-criteria in **BLUE** were modified from Deze. **YELLOW** denotes sub-criteria that could arguably be modified, but were not.

ENVIRONMENT		East	West	Submarine	Simpson Is.
Air Quality	Dust	1	2	1	1
	Score	1	2	1	1
	Ranking	3	4	3	3
Wildlife	Habitat	3	4	1	2
	Woodland Caribou	1	2	1	1
	Waterfowl	2	3	1	2
	Moose	2	1	4	3
	Passerines	3	4	1	2
	Score	11	14	8	10
Vegetation		3	4	1	2
	Rare Plants	1	2	1	1
	Forestry	4	6	2	3
	Score	4	6	2	3
	Ranking	3	4	1	2
SUM OF RANKINGS		9	12	5	7
OVERALL RANKING		3	4	1	2

SOCIO-ECONOMIC		East	West	Submarine	Simpson Is.
Traditional Land Use	Trapping	1	4	3	2
	Country Food				
	Consumption Rate	2	1	3	4
Score		3	5	6	6

Ranking		1	2	4	4
Contemporary Land Use	Renewable Resource Uses	2	4	1	3
	Non-Renewable Resource Uses	2	4	3	4
	Score	4	8	4	7
	Ranking	2	4	2	3
Employment and Income	Aboriginal/South Slave Employment ¹	2	3	2	2
	Distribution of Project Income	2	4	1	1
	Score	4	7	3	3
	Ranking	2	4	1	1
Socio-Cultural Well-Being	Traditional Land-use Patterns	2	4	1	1
	Valued Cultural and Spiritual Places	3	3	3	3
	Score	5	7	4	4
	Ranking	3	4	2	2
Nuisances	Vicinity to Receptors	2	4	3	2
	Visibility	2	3	1	4
	Score	4	7	4	6
	Ranking	2	4	2	3
Built Heritage Features and Cultural Landscapes	Vicinity to existing cabins, trails, etc.	2	4	2	3
	Change in the character of areas	3	4	2	4
	Score	5	8	4	7
	Ranking	2	4	1	3
Economic Development	Future Customers ²	1	2	1	1
	Line Frontage ³	2	2	2	2
	Score	3	4	3	3
	Ranking	2	3	2	2
Access	Public Desirability	2	4	2	2
	Change in the character of areas	2	3	1	4
	Score	4	7	3	6
	Ranking	2	4	1	3

SUM OF RANKINGS		16	29	15	21
OVERALL RANKING		2	4	1	3

LAND ACCESS		East	West	Submarine	Simpson Is.
Crown Land Withdrawals	Crown Land Withdrawals ⁴				
Score		0	0	0	0
Ranking					
Areas of Recognized Importance	Areas of Recognized Importance	3	4	1	2
Score		3	4	1	2
Ranking		2	4	1	3
Land Tenure	Land Tenure ⁵	3	4	3	3
Score		3	4	3	3
Ranking		3	4	3	3
SUM OF RANKINGS		5	8	4	6
OVERALL RANKING		2	4	1	3

ENGINEERING/COST		East	West	Submarine	Simpson Is.
Capital Cost	Design Cost	1	4	3	2
	Substation and Equipment	1	4	3	2
	Line and Construction	1	4	3	2
Score		3	12	9	6
Ranking		1	4	3	2
Line Loss Cost	Annual GWh Loss	1	4	3	2
Score		1	4	3	2
Ranking		1	4	3	2
Outage/Maintenance Cost	Annual Outage Cost	1	4	2	3
	Annual Maintenance Cost	3	4	1	2
Score		4	8	3	5
Ranking		2	4	1	3
Schedule Cost	Incremental Duration Cost	1	4	3	2
Score		1	4	3	2
Ranking		1	4	3	2
SUM OF RANKINGS		5	16	10	9

OVERALL RANKING		1	4	3	2
CONSTRUCTION AND OPERATIONS RISK		East	West	Submarine	Simpson Is.
Terrain Risk	Percentage Rock	3	4	1	2
	Percentage Wetland	3	4	1	2
	Percentage Disturbed	1	2	2	2
	Score	7	10	4	6
	Ranking	3	4	1	2
Logistics/Schedule Risk	Water Crossings	1	2	4	3
	Materials Delivery ⁶	4	2	4	3
	Construction Access	4	3	2	1
	Construction Methods	1	2	3	4
	Score	10	9	13	11
	Ranking	2	1	4	3
Outage/Reliability Risk	Length of Line	1	4	3	2
	High Towers	2	3	1	4
	Materials Technology	1	2	4	3
	Lightning Exposure	2	4	1	3
	Fire Exposure (Relative Distance)	3	4	1	2
	Fire Exposure (Ease of Access) ⁷	4	1	3	2
	Score	13	18	13	16
	Ranking	2	4	2	3
SUM OF RANKINGS		7	9	7	8
OVERALL RANKING		2	4	2	3

Transmission Line Route Alternatives Assessment (Modified from Deze Valuation)					
Categories	Weight	East	West	Submarine	Simpson Is.
Environment	20%	3	4	1	2
Socio-Economics	20%	2	4	1	3
Land Access	20%	2	4	1	3
Engineering/Cost	20%	1	4	3	2
Con. And Ops. Risk	20%	2	4	2	3
TOTAL	100%	2	4	1.6	2.6

PREFERRED:

√

1. Aboriginal / South Slave Employment

It is very likely that the aboriginal employment opportunities with the East, Submarine, and Simpson

Is. alternatives would be identical, since the same amount of aboriginal groups are affected.

2. Future Customers

The Submarine and Simpson Is. Routes should be ranked higher, as they can not only potentially supply the diamond mines, but also future mining/milling at both Pine Point and Thor Lake.

3. Line Frontage

The Submarine and Simpson Is. Routes provide line frontage around Pine Point and Thor Lake, while the other alternatives do not. They should have higher ratings.

4. Crown Land Withdrawals

Interaction with Crown Land Withdrawals is irrelevant, as transmission lines do not require a disposition of land. Transmission lines can cross land withdrawals.

5. Land Tenure

While the West Route has tenure issues with the Deh Cho and Tli Cho, the other alternatives have similar tenure issues with unsettled claims and treaty processes and Parks Canada.

6. Materials Delivery

East Arm route has by far the most new winter road construction of all the alternatives, and is the most remote. This alternative should not be rated favourable for this sub-criteria.

7. Fire Exposure (Ease of Access)

The East Arm route has a long, isolated overland portion of line. Should fire damage the line, it will be much more difficult to service than the other three options.

Only modified seven (7) sub-criteria to achieve this - many more sub-criteria could be modified

Basically, based upon subjective value judgements and the different interpretations of evidence, this alternatives assessment methodology could be used to support almost any conclusion.

