Package #: CH0009

Package Title: Construction of North and South Dams

Bid Normalisation

Bidder: 02

	Manhours	Labour	Materials	Equipment	Other	OH&P	Balance	Total	
Base Proposal As Bid	885,881	102,173,408	113,993,325	81,294,932	18,335,191	-	-	315,796,855	315,796,855
									check
Bidder Commercial Exceptions									
Craft Travel					7,691,689			7,691,689	

Bidder Commercial Exceptions

			Comment
1	Labour Risk	18,536,986	-
2	1 Year Warranty	600,000	-
3	100 year storm to 20 year storm	200,000	-
4	Negotiate Unit Prices & Schedule for Quantity Increases	769,133	-
5	Claim(s) acknowledgement at Substantial Completion	-	Negotiate for unknown Indemnity Claims - NFA
6	Liquidated Damages	-	Delta All Bidders
7	Holdback release	-	Delta All Bidders

Bidder Technical Exceptions

1	Zone Materials payment by Tonne	-	Delta All Bidders
2	Payment for Major Components at LNTP	900,000	Finance Costs
3	Removal of upstream Crane Pads	-	Delta all Bidders
4	Zones 2 & 3 crushed from Area A	-	Risk due to limited availability of Rock in stockpile.
5	No Royalties	-	Company Provided Item
6	Waste to Area A	-	Waste from Rock Removal & Demolition of existing CDs only
7	No underwater excavation pre-splitting	-	NFA Delta all Bidders
8	RCC levelling concrete	-	No net Fincial Impact
9	GERCC on upstream face. Bid Item 136.1	-	Method revision results in delta impact.
10	Precast Concrete as Lump Sum	-	No net Fincial Impact
11	No HST on fuel	-	Expected & required (ITC).
12	Box culvert on North Dam eliminated	-	NFA Delta all Bidders
13	Schedule Time for Jet Grouting	2,450,000	Based on 5 weeks extention.
14	Fuel Supply - Exhibit 12 article 3.1.9	980,000	14 days Risk at LD Rate
15	Interrupted Company Power - fuel for generators	-	Company Provided Item
16	No allowance for Company Offices - Exhibit 7 article 4.0e	72,000	Add for fully found office
17	Intake Cofferdam as ramp for Temp. bridge	-	No Issue
18	All QA/QC testing by Company	-	Delta all Bidders
19	Revise uplift % on significant changes in scope.	841,070	See also Bidder Commercial 4
20	Engineer approval turn-around 10 day in lieu of 21 day.	156,000	Extra Engineer for 6 months.
21	Tailrace Channel during plug exc. In dry - no dewatering.	-	Not required
22	No source B for flyash & cement identified.	-	No Financial Adjustment
23	4 weather days/per month scheduled.	-	In Labour Risk

Company Identified Technical Exceptions

1	Laydown Areas B, A, G & F assumed available for Contractor.	-	Delta All Bidders
2	Dewatering Capacity not specified.	-	Delta All Bidders
3	Removal of crane pad on North Dam Downstream excluded	-	Delta All Bidders
4	Electronic Detonators for u/w blasting not mentioned.	-	Delta All Bidders
5	Bubble curtain not mentioned.	-	Delta All Bidders
6	South Dam start 2015 - possible conflict to C1	-	Not an issue
7	Use of Transmission ROW as crushing equipment set-up	-	Delta All Bidders
8	Sedimentation Pond for River Work after headpond at 25m	-	Delta All Bidders
9	RCC - Sloped Installation	-	-
	Normalised Price	**348,993,734**	

LOWER CHURCHILL PROJECT
MUSKRAT FALLS
CH0009 - CONSTRUCTION OF NORTH AND SOUTH DAMS

SCHEDULE OF PRICE BREAKDOWN

ISSUED FOR: BID
DATE: 14 - Oct - 2014

BIDDER'S NAME: Bidder 2

APPENDIX A2.1
Rev. B2

PRICE ITEM No	PRICE ITEM REFERENCE Exhibit 2 - ATT 1	WBS CODE CODE	WBS CODE SUBCODE	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	MAN HOURS (AT SITE)	Extended M/H	MANPOWER COST/UNIT ($ CAN)	Extended Labour Cost	MATERIALS COST/UNIT ($ CAN)	Extended Material Cost	EQUIPMENT COST/UNIT ($ CAN)	Extended Equipment Cost	S/C Cost/Unit F	Extended S/C	PROFIT COST/UNIT ($ CAN)	Extended OH&P	UNIT PRICE| ($ CAN) F= (B+C+D+E +F)	Check Total	TOTAL PRICE ($ CAN) G= A x F	
	2	0000		**INDIRECT COSTS**																		
1	2.1		0000.01	Mobilization	LS	1	83,638	83,638	8,100,000	8,100,000	31,390,798	31,390,798	28,250,000	28,250,000	5,500,000	5,500,000		-	73,240,798	73,240,798	73,240,798	
2	2.2		0000.02	Site Installation	LS	1	151,227	151,227	13,000,000	13,000,000	5,000,000	5,000,000	26,500,000	26,500,000	1,500,000	1,500,000		-	46,000,000	46,000,000	46,000,000	
3	2.3		0000.03	Management, Staff, employees and Consultants	LS	1	234,434	234,434	41,500,000	41,500,000	2,500,000	2,500,000	1,000,000	1,000,000	150,000	150,000		-	45,150,000	45,150,000	45,150,000	
4	2.4		0000.04	Health and Safety, Environmental and Quality Requirements	LS	1	14,143	14,143	2,400,000	2,400,000	550,000	550,000	-	-	115,000	115,000		-	3,065,000	3,065,000	3,065,000	
5	2.5		0000.05	Credit, Guarantee and Insurance	LS	1		-		-	991,000	991,000		-		-		-	991,000	991,000	991,000	
6	2.6		0000.06	Warranty, per Article 17 of the Agreement	LS	1		-	100,000	100,000	100,000	100,000	100,000	100,000		-		-	300,000	300,000	300,000	
7	2.7		0000.07	Demobilization	LS	1	1,472	1,472	135,124	135,124	430,000	430,000	350,000	350,000		-		-	915,124	915,124	915,124	
				SUB-TOTAL INDIRECT COSTS				**484,914**		**65,235,124**		**40,961,798**		**56,200,000**		**7,265,000**	**-**	**-**		**169,661,922**	**169,661,922**	
	3	1100		**GENERAL**																		
	3.1		1110	**DEWATERING OF STRUCTURE AREAS**																		
8	3.1.1		1110.01	Dewatering of Structure Areas	LS	1	3,174	3,174	290,000	290,000	400,000	400,000	1,500,000	1,500,000		-		-	2,190,000	2,190,000	2,190,000	
	3.2		1111	**EXCAVATION OF EXISTING COFFERDAMS**																		
9	3.2.1		1111.01	Excavation of Existing Embankment cofferdams 1, 2 and 3, and Existing Ramps	m^3	177,000	0.02	3,343	1.72	304,440	-	-	9.04	1,600,080		-		-	10.76	1,904,520	1,904,520	
10	3.2.2		1111.02	Excavation of Downstream section of RCC riverside cofferdam	m^3	20,000	0.05	933	4.30	86,000	4.89	97,800	12.50	250,000		-		-	21.69	433,800	433,800	
	3.3		1112	**PERMANENT ROADS AND PARKING AREA**																		
11	3.3.1		1112.01	Overburden Excavation	m^3	8,000	0.03	206	2.38	19,040	-	-	6.50	52,000		-		-	8.88	71,040	71,040	
12	3.3.2		1112.02	Approved Compactable Material	m^3	44,000	0.02	877	1.84	80,960	-	-	1.36	59,840		-		-	3.20	140,800	140,800	
13	3.3.3		1112.03	Granular "B" Material	m^3	5,800	0.07	418	6.72	38,976	44.26	256,708	6.03	34,974		-		-	57.01	330,658	330,658	
14	3.3.4		1112.04	Granular "C" Material	m^3	4,000	0.09	347	8.00	32,000	44.26	177,040	6.00	24,000		-		-	58.26	233,040	233,040	
15	3.3.5		1112.05	Maintenance Grade 3 material	m^3	4,500	0.07	326	6.67	30,015	44.26	199,170	5.56	25,020		-		-	56.49	254,205	254,205	
16	3.3.6		1112.06	CSP culvert, dia. 900 mm	m	48	2.29	110	229.17	11,000		-	312.50	15,000		-		-	541.67	26,000	26,000	
17	3.3.7		1112.07	Guide Rails	m	400	1.15	458	105.00	42,000	50.04	20,016	26.25	10,500		-		-	181.29	72,516	72,516	
18	3.3.8		1112.08	Gate Type 1	unit	2	27.50	55	5,000.00	10,000	850.00	1,700	1,700.00	3,400		-		-	7,550.00	15,100	15,100	
	3.4		1113	**ACCESS ROAD TO LAYDOWN AREA C1**																		
19	3.4.1		1113.01	Approved Compactable Material	m^3	26,000	0.02	426	1.54	40,040	-	-	1.54	40,040		-		-	3.08	80,080	80,080	
20	3.4.2		1113.02	Granular "C" Material	m^3	7,500	0.03	248	3.07	23,025	44.26	331,950	4.67	35,025		-		-	52.00	390,000	390,000	
	3.5		1114	**DITCHES**																		
21	3.5.1		1114.01	Overburden Excavation	m^3	2,000	0.22	442	20.50	41,000	-	-	20.00	40,000		-		-	40.50	81,000	81,000	
22	3.5.2		1114.02	Non-woven Geotextile, min 300 g/m^2	m^2	2,500	0.03	74	2.80	7,000	3.06	7,650	0.88	2,200		-		-	6.74	16,850	16,850	
23	3.5.3		1114.03	Rockfill Protection, 100 - 250 mm	m^3	1,000	0.11	109	11.00	11,000	42.72	42,720	16.00	16,000		-		-	69.72	69,720	69,720	
	3.6		1115	**SLOPE PROTECTION**																		
24	3.6.1		1115.01	Rockfill Protection, Zone 3E Material	m^3	2,500	0.12	307	11.20	28,000	42.72	106,800	32.00	80,000		-		-	85.92	214,800	214,800	
25	3.6.2		1115.02	Non-woven Geotextile, min 530 g/m^2	m^2	4,500	0.04	166	3.56	16,020	3.91	17,595	0.78	3,510		-		-	8.25	37,125	37,125	
	3.7		1116	**CHAIN LINK FENCES AND GATES**																		
26	3.7.1		1116.01	Chain Link Fence and Gates	m	720	2.71	1,954	256.94	184,997	-	-	48.61	34,999		-		-	305.55	219,996	219,996	6,781,250
	3.8		1150	**TEMPORARY UPSTREAM BRIDGE OVER SPILLWAY APPROACH CHANNEL**																		
27	3.8.1		1150.01	Engineering of Temporary Upstream Bridge	LS	1		-		-		-		-	50,000.00	50,000		-	50,000.00	50,000	50,000	
28	3.8.2		1150.02	Supply of Temporary Upstream Bridge	LS	1		-		-	7,650,000	7,650,000		-		-		-	7,650,000.00	7,650,000	7,650,000	
29	3.8.3		1150.03	Installation, removal and handover of Temporary Upstream Bridge	LS	1	########	14,950	1,425,000	1,425,000	750,000	750,000	550,000	550,000		-		-	2,725,000.00	2,725,000	2,725,000	
				SUB-TOTAL GENERAL				**28,923**		**2,720,513**		**10,059,149**		**4,376,588**		**50,000**		**-**		**17,206,250**	**17,206,250**	10,425,000
	4	2300		**DAMS AND COFFERDAMS - GENERAL**																		
	4.1	2340	2341	**UPSTREAM COFFERDAM**																		
				CIVIL WORK																		
				Excavation																		
30	4.1.1		2341.01	Overburden excavation	m^3	2,500	0.03	64	2.40	6,000	-	-	2.20	5,500	-	-		-	4.60	11,500	11,500	
				Foundation Preparation in dry condition																		
31	4.1.2		2341.02	Foundation Cleaning (water/air jets and Vacuum trucks)	m^2	1,200	0.26	313	24.17	29,004	-	-	13.33	15,996		-		-	37.50	45,000	45,000	
32	4.1.3		2341.03	Rock Excavation including dental excavation and Scaling	m^3	500	0.48	238	44.00	22,000	22.22	11,110	96.00	48,000		-		-	162.22	81,110	81,110	
33	4.1.4		2341.04	Dental Concrete	m^3	800	2.11	1,685	195.00	156,000	531.25	425,000	-	-	49.82	39,856		-	776.07	620,856	620,856	
34	4.1.5		2341.05	Slush Grout	m^2	1,200	0.39	462	35.83	42,996	12.50	15,000	2.50	3,000		-		-	50.83	60,996	60,996	
35	4.1.6		2341.06	Dry Pack	m^3	6	217.00	1,302	3,500.00	21,000	1,500.00	9,000	500.00	3,000		-		-	5,500.00	33,000	33,000	
				Embankment Materials																		

LOWER CHURCHILL PROJECT MUSKRAT FALLS CH0009 - CONSTRUCTION OF NORTH AND SOUTH DAMS				SCHEDULE OF PRICE BREAKDOWN									APPENDIX A2.1 Rev. B2								
				ISSUED FOR: BID DATE: 14 - Oct - 2014	BIDDER'S NAME: Bidder 2																
PRICE ITEM		WBS CODE																			
No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	MAN HOURS (AT SITE)	Extended M/H	MANPOWER COST/UNIT ($ CAN)	Extended Labour Cost	MATERIALS COST/UNIT ($ CAN)	Extended Material Cost	EQUIPMENT COST/UNIT ($ CAN)	Extended Equipment Cost	S/C Cost/Unit F	Extended S/C	PROFIT COST/UNIT ($ CAN)	Extended OH&P	UNIT PRICE| ($ CAN) F= (B+C+D+E +F)|	Check Total	TOTAL PRICE ($ CAN) G= A x F
36	4.1.7		2341.07	Compacted Till - Zones 1 and 1C Materials	m^3	19,000	0.15	2,877	13.74	261,060	-	-	27.37	520,030		-		-	41.11	781,090	781,090
37	4.1.8		2341.08	Dumped Till - Zone 1A Material	m^3	134,000	0.09	11,788	7.99	1,070,660	-	-	20.81	2,788,540		-		-	28.80	3,859,200	3,859,200
38	4.1.9		2341.09	Compacted Granular - Zone 2A Material	m^3	20,700	0.08	1,607	7.25	150,075	45.89	949,923	16.91	350,037		-		-	70.05	1,450,035	1,450,035
39	4.1.10		2341.10	Compacted Granular - Zone 2C Material	m^3	8,700	0.08	711	7.70	66,990	44.26	385,062	18.97	165,039		-		-	70.93	617,091	617,091
40	4.1.11		2341.11	Dumped Granular - Zone 2E Material	m^3	26,300	0.04	1,037	3.80	99,940	44.26	1,164,038	9.32	245,116		-		-	57.38	1,509,094	1,509,094
41	4.1.12		2341.12	Dumped Rockfill- Zone 3 Material	m^3	143,000	0.02	2,850	1.85	264,550	-	-	10.14	1,450,020		-		-	11.99	1,714,570	1,714,570
42	4.1.13		2341.13	Dumped Large Blocks (300-1000 mm) - Zone 3 Class 1	m^3	37,000	0.02	738	1.84	68,080	-	-	9.92	367,040		-		-	11.76	435,120	435,120
43	4.1.14		2341.14	Dumped Large Blocks (≥1000 mm) - Zone 3 Class 2	m^3	65,000	0.05	3,189	4.51	293,150	-	-	25.49	1,656,850		-		-	30.00	1,950,000	1,950,000
44	4.1.15		2341.15	Dumped Large Blocks (≥1300 mm) - Zone 3 Class 3	m^3	15,000	0.05	675	4.13	61,950	-	-	25.93	388,950		-		-	30.06	450,900	450,900
45	4.1.16		2341.16	Compacted Crushed Stone - Zone 3A Material	m^3	10,950	0.03	297	7.76	84,972	44.70	489,465	12.79	140,051		-		-	65.25	714,488	714,488
46	4.1.17		2341.17	Compacted Rockfill - Zone 3C Material	m^3	33,740	0.10	3,397	9.34	315,132	-	-	37.05	1,250,067		-		-	46.39	1,565,199	1,565,199
47	4.1.18		2341.18	Compacted Rockfill - Zone 3D Material	m^3	33,900	0.04	1,428	3.86	130,854	-	-	12.54	425,106		-		-	16.40	555,960	555,960
48	4.1.19		2341.19	Dumped Crushed Stone- Zone 3F Material	m^3	21,000	0.04	828	3.67	77,070	44.70	938,700	7.62	160,020		-		-	55.99	1,175,790	1,175,790
				Investigation for Jet Grouted Cut-off Wall and Bedrock Grouting																	
49	4.1.20		2341.20	Percussion Drill Holes in embankments, river sediments and bedrock	m	1,000	0.23	230	22.40	22,400	-	-	-	-	104.00	104,000		-	126.40	126,400	126,400
50	4.1.21		2341.21	Verification Core Drilling in jet grouting cut-off wall and bedrock	m	200	0.66	132	61.68	12,336	-	-	-	-	407.00	81,400		-	468.68	93,736	93,736
51	4.1.22		2341.22	Core Diamond Drill Rig in Standby	hour	140		-		-		-	132	18,480		-		-	132.00	18,480	18,480
				Jet Grouting cut off wall																	
52	4.1.23		2341.23	Mobilization and demobilization	LS	1	2,155.00	2,155	239,568	239,568		-		-	873,147.00	873,147		-	1,112,715.00	1,112,715	1,112,715
53	4.1.24		2341.24	Drilling Holes for Jet Grouting in embankment, river sediments and bedrock	m	9,600	0.46	4,416	45.83	439,968	-	-	-	-	114.00	1,094,400		-	159.83	1,534,368	1,534,368
54	4.1.25		2341.25	Jet Grouted Cut-off wall	m^2	2,800	1.56	4,376	147.46	412,888	46.05	128,940	7.86	22,008	852.00	2,385,600		-	1,053.37	2,949,436	2,949,436
				Bedrock Grouting beneath the Jet Grouted Cut-off Wall, if required																	
55	4.1.26		2341.26	Drilling Holes for Grouting in embankment , jet grouting cut-off wall and bedrock, if required	m	1,300	0.05	60	3.96	5,148	-	-	-	-	19.00	24,700		-	22.96	29,848	29,848
56	4.1.27		2341.27	Dry cement incorported in the grout, if required	kg	11,000		-		-		-		-	1.00	11,000		-	1.00	11,000	11,000
57	4.1.28		2341.28	Grouting - Succesful connections, if required	unit	60	2.30	138	199.50	11,970		-		-	642.00	38,520		-	841.50	50,490	50,490
				SUB-TOTAL UPSTREAM COFFERDAM				**46,993**		**4,365,761**		**4,516,238**		**10,022,850**		**4,652,623**		**-**		**23,557,471**	**23,557,471**
	4.2	2340	2342	**DOWNSTREAM COFFERDAM**																	
				CIVIL WORK																	
				Excavation																	
58	4.2.1		2342.01	Overburden excavation	m^3	500	0.07	37	7.00	3,500	-	-	14.40	7,200		-		-	21.40	10,700	10,700
				Foundation Preparation																	
59	4.2.2		2342.02	Foundation cleaning (water/ait jets and Vacuum trucks)	m^2	1,250	0.26	326	24.00	30,000	-	-	13.20	16,500		-		-	37.20	46,500	46,500
60	4.2.3		2342.03	Rock excavation including dental excavation and scaling	m^3	500	0.48	238	44.00	22,000	22.22	11,110	90.00	45,000		-		-	156.22	78,110	78,110
61	4.2.4		2342.04	Dental Concrete	m^3	200	2.11	421	195.00	39,000	507.80	101,560	-	-	49.83	9,966		-	752.63	150,526	150,526
62	4.2.5		2342.05	Slush Grout	m^2	1,250	0.38	481	35.20	44,000	11.25	14,063	2.40	3,000	-	-		-	48.85	61,063	61,063
63	4.2.6		2342.06	Dry Pack	m^3	6	36.17	217	3,500.00	21,000	1,500.00	9,000	500.00	3,000	-	-		-	5,500.00	33,000	33,000
				Embankment Materials																	
64	4.2.7		2342.07	Compacted Till - Zones 1 and 1C	m^3	2,000	0.15	303	14.00	28,000	-	-	22.50	45,000		-		-	36.50	73,000	73,000
65	4.2.8		2342.08	Compacted Granular - Zone 2C	m^3	2,500	0.08	212	8.00	20,000	44.26	110,650	14.00	35,000		-		-	66.26	165,650	165,650
66	4.2.9		2342.09	Compacted Rockfill - Zone 3C	m^3	4,600	0.10	474	9.57	44,022	-	-	32.61	150,006		-		-	42.18	194,028	194,028
67	4.2.10		2342.10	Compacted Rockfill - Zone 3D	m^3	2,000	0.04	84	4.00	8,000	-	-	13.00	26,000		-		-	17.00	34,000	34,000
				SUB-TOTAL DOWNSTREAM COFFERDAM				**2,793**		**259,522**		**246,383**		**330,706**		**9,966**		**-**		**846,577**	**846,577**
	4.3	2340	2343	**INTAKE CHANNEL COFFERDAM**																	
				CIVIL WORK																	
				Excavation																	
68	4.3.1		2343.01	Overburden excavation	m^3	8,800	0.03	235	2.50	22,000	-	-	5.68	49,984		-		-	8.18	71,984	71,984
				Foundation Preparation																	
69	4.3.2		2343.02	Foundation cleaning (water/ait jets and Vacuum trucks)	m^2	1,700	0.26	443	24.12	41,004	-	-	14.71	25,007		-		-	38.83	66,011	66,011
70	4.3.3		2343.03	Rock excavation including dental excavation and scaling	m^3	700	0.48	333	44.29	31,003	22.22	15,554	85.71	59,997		-		-	152.22	106,554	106,554

LOWER CHURCHILL PROJECT
MUSKRAT FALLS
CH0009 - CONSTRUCTION OF NORTH AND SOUTH DAMS

SCHEDULE OF PRICE BREAKDOWN

ISSUED FOR: BID
DATE: 14 - Oct - 2014

BIDDER'S NAME: Bidder 2

APPENDIX A2.1
Rev. B2

PRICE ITEM No	REFERENCE Exhibit 2 - ATT 1	WBS CODE CODE	WBS CODE SUBCODE	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	MAN HOURS (AT SITE)	Extended M/H	MANPOWER COST/UNIT ($ CAN)	Extended Labour Cost	MATERIALS COST/UNIT ($ CAN)	Extended Material Cost	EQUIPMENT COST/UNIT ($ CAN)	Extended Equipment Cost	S/C Cost/Unit F	Extended S/C	PROFIT COST/UNIT ($ CAN)	Extended OH&P	UNIT PRICE| ($ CAN) F= (B+C+D+E +F)|	Check Total	TOTAL PRICE ($ CAN) G= A x F
71	4.3.4		2343.04	Dental Concrete	m^3	250	2.10	526	196.00	49,000	507.69	126,923	-	-	49.83	12,458		-	753.52	188,380	188,380
72	4.3.5		2343.05	Slush Grout	m^2	1,700	0.39	655	35.29	59,993	11.25	19,125	3.53	6,001		-		-	50.07	85,119	85,119
73	4.3.6		2343.06	Dry Pack	m^3	9	36.11	325	3,444.44	31,000	1,333.33	12,000	333.33	3,000		-		-	5,111.10	46,000	46,000
				Embankment Materials																	
74	4.3.7		2343.07	Compacted Till - Zones 1 and 1C	m^3	6,300	0.15	954	13.81	87,003	-	-	23.81	150,003		-		-	37.62	237,006	237,006
75	4.3.8		2343.08	Compacted Granular - Zone 2C	m^3	4,900	0.08	411	7.96	39,004	44.26	216,874	13.27	65,023		-		-	65.49	320,901	320,901
76	4.3.9		2343.09	Compacted Rockfill - Zone 3C	m^3	5,200	0.10	522	9.42	48,984	-	-	28.85	150,020		-		-	38.27	199,004	199,004
77	4.3.10		2343.10	Compacted Rockfill - Zone 3D	m^3	1,400	0.04	59	3.93	5,502	-	-	14.29	20,006		-		-	18.22	25,508	25,508
				SUB-TOTAL INTAKE CHANNEL COFFERDAM				**4,463**		**414,493**		**390,475**		**529,041**		**12,458**		**-**		**1,346,467**	**1,346,467**
	4.4		2330	**SOUTH DAM**																	
				CIVIL WORK																	
				Excavation																	
78	4.4.1		2330.01	Overburden excavation	m^3	94,000	0	2,514	2.44	229,360	-	-	5.53	519,820		-		-	7.97	749,180	749,180
				Foundation Preparation																	
79	4.4.2		2330.02	Foundation cleaning (water/ait jets and Vacuum trucks)	m^2	3,400	0.26	886	23.82	80,988	-	-	13.53	46,002		-		-	37.35	126,990	126,990
80	4.4.3		2330.03	Rock excavation including dental excavation and scaling	m^3	2,000	0.48	953	44.00	88,000	22.22	44,440	67.50	135,000		-		-	133.72	267,440	267,440
81	4.4.4		2330.04	Dental Concrete	m^3	1,200	2.11	2,527	195.00	234,000	507.69	609,228		-	49.83	59,796		-	752.52	903,024	903,024
82	4.4.5		2330.05	Slush Grout	m^2	3,400	0.39	1,309	35.29	119,986	11.25	38,250	3.53	12,002		-		-	50.07	170,238	170,238
83	4.4.6		2330.06	Dry Pack	m^3	20	36.10	722	3,350.00	67,000	1,000.00	20,000	200.00	4,000		-		-	4,550.00	91,000	91,000
84	4.4.7		2330.07	Drilling Holes for Grouting	m	1,200	0.91	1,094	82.86	99,432	13.31	15,972	5.00	6,000	103.00	123,600		-	204.17	245,004	245,004
85	4.4.8		2330.08	Dry cement incorported in the grout	kg	42,000	0.01	386	1.15	48,300	-	-		-	3.33	139,860		-	4.48	188,160	188,160
86	4.4.9		2330.09	Cored Drill Check Holes	m	30	1.47	44	124.80	3,744	-	-		-	233.33	7,000		-	358.13	10,744	10,744
87	4.4.10		2330.10	Percussion Drilling Check holes	m	60	0.73	44	57.85	3,471	-	-		-	116.67	7,000		-	174.52	10,471	10,471
88	4.4.11		2330.11	Grouting - Successful connections	unit	250	0.48	121	46.00	11,500	-	-		-	110.00	27,500		-	156.00	39,000	39,000
89	4.4.12		2330.12	Water pressure test (Lugeon - 5 Stages)	hour	8	2.75	22	255.00	2,040	-	-		-	600.00	4,800		-	855.00	6,840	6,840
90	4.4.13		2330.13	Water test - Successful connections	unit	18	1.22	22	113.33	2,040	-	-		-	266.67	4,800		-	380.00	6,840	6,840
91	4.4.14		2330.14	Uplift gauges	m	20	2.20	44	187.25	3,745	-	-		-	600.00	12,000		-	787.25	15,745	15,745
92	4.4.15		2330.15	Thermistors (measure rock temperature in grout holes)	unit	1	44.00	44	3,744.00	3,744	-	-		-	9,000.00	9,000		-	12,744.00	12,744	12,744
				Embankment Materials																	
93	4.4.16		2330.16	Compacted Till - Zones 1 and 1C	m^3	26,000	0.14	3,678	12.81	333,060	-	-	22.12	575,120		-		-	34.93	908,180	908,180
94	4.4.17		2330.17	Compacted Granular - Zone 2A	m^3	28,000	0.09	2,527	8.39	234,920	44.70	1,251,600	13.93	390,040		-		-	67.02	1,876,560	1,876,560
95	4.4.18		2330.18	Compacted Crushed Stone - Zone 3A	m^3	12,000	0.09	1,083	8.42	101,040	44.70	536,400	14.17	170,040		-		-	67.29	807,480	807,480
96	4.4.19		2330.19	Compacted Crushed Stone - Zone 3B	m^3	16,000	0.09	1,444	8.44	135,040	44.26	708,160	14.06	224,960		-		-	66.76	1,068,160	1,068,160
97	4.4.20		2330.20	Compacted Rockfill - Zone 3C	m^3	21,000	0.09	1,977	8.71	182,910	-	-	33.33	699,930		-		-	42.04	882,840	882,840
98	4.4.21		2330.21	Compacted Rockfill - Zone 3D	m^3	46,000	0.04	1,646	3.28	150,880	-	-	16.30	749,800		-		-	19.58	900,680	900,680
99	4.4.22		2330.22	Riprap - Zone 4	m^3	6,000	0.10	626	9.67	58,020	42.72	256,320	17.50	105,000		-		-	69.89	419,340	419,340
100	4.4.23		2330.23	Compacted Crushed Stone - Zone 5	m^3	310	0.22	69	20.97	6,501	44.24	13,714	19.35	5,999		-		-	84.56	26,214	26,214
101	4.4.24		2330.24	Jersey Barrier	m	600	0.08	46	7.50	4,500	-	-	7.50	4,500		-		-	15.00	9,000	9,000
				Geotechnical Instrumentation																	
102	4.4.25		2330.25	V-Notch Weirs, excluding Shelters	unit	2	123.50	247	11,500.00	23,000	12,068.00	24,136	11,000.00	22,000		-		-	34,568.00	69,136	69,136
103	4.4.26		2330.26	Shelters for V-Notch Weirs	unit	2	18.50	37	2,000.00	4,000	15,000.00	30,000		-		-		-	17,000.00	34,000	34,000
104	4.4.27		2330.27	Survey Monuments at South Dam Crest	unit	3		-		-	-	-		-	2,000.00	6,000		-	2,000.00	6,000	6,000
				SUB-TOTAL SOUTH DAM				**24,112**		**2,231,221**		**3,548,220**		**3,670,213**		**401,356**		**-**		**9,851,010**	**9,851,010**
	4.5		**2320**	**NORTH DAM**																	
				CIVIL WORK																	
				Clearing																	
105	4.5.1		2320.01	Clearing of the North Abutment	Ha	3	245.33	736	22,666.67	68,000	-	-	46,666.67	140,000		-		-	69,333.34	208,000	208,000
				Excavation																	
106	4.5.2		2320.02	Overburden Excavation	m^3	72,000	0.03	2,208	2.79	200,880	-	-	6.94	499,680		-		-	9.73	700,560	700,560
				Foundation Preparation																	
107	4.5.3		2320.03	Foundation Cleaning (water/air jets and vacuum)	m^2	13,500	0.26	3,519	23.85	321,975	-	-	13.33	179,955		-		-	37.18	501,930	501,930
108	4.5.4		2320.04	Rock Excavation including Dental Excavation and Scaling	m^3	6,000	0.48	2,858	43.83	262,980	22.22	133,320	52.50	315,000		-		-	118.55	711,300	711,300
109	4.5.5		2320.05	Dental Concrete	m^3	4,000	2.11	8,424	195.00	780,000	507.73	2,030,920		-	49.83	199,320		-	752.56	3,010,240	3,010,240
110	4.5.6		2320.06	Slush Grout	m^2	13,500	0.39	5,199	35.19	475,065	11.25	151,875	2.22	29,970		-		-	48.66	656,910	656,910
111	4.5.7		2320.07	Dry Pack	m^3	70	36.10	2,527	3,357.14	235,000	882.40	61,768	171.43	12,000		-		-	4,410.97	308,768	308,768
112	4.5.8		2320.08	Drilling Holes in RCC and Bedrock for Grouting	m	4,200	1.57	6,578	155.84	654,528	5.49	23,058	9.05	38,010	130.95	549,990		-	301.33	1,265,586	1,265,586
113	4.5.9		2320.09	Grouting - Successful Connections	unit	720	0.28	198	26.25	18,900	-	-		-	100.00	72,000		-	126.25	90,900	90,900
114	4.5.10		2320.10	Dry Cement incorported in the grout	kg	126,000	0.01	695	0.60	75,600	-	-		-	2.10	264,600		-	2.70	340,200	340,200
115	4.5.11		2320.11	Cored Drill Check Holes	m	60	99.00	5,940	154.20	9,252	-	-		-	296.00	17,760		-	450.20	27,012	27,012
116	4.5.12		2320.12	Percussion Drilling Check Holes	m	120	1.28	153	120.46	14,455	-	-		-	216.00	25,920		-	336.46	40,375	40,375

LOWER CHURCHILL PROJECT MUSKRAT FALLS CH0009 - CONSTRUCTION OF NORTH AND SOUTH DAMS				SCHEDULE OF PRICE BREAKDOWN									APPENDIX A2.1 Rev. B2								
				ISSUED FOR: BID DATE: 14 - Oct - 2014	BIDDER'S NAME: Bidder 2																
PRICE ITEM		WBS CODE																			
No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	MAN HOURS (AT SITE)	Extended M/H	MANPOWER COST/UNIT ($ CAN)	Extended Labour Cost	MATERIALS COST/UNIT ($ CAN)	Extended Material Cost	EQUIPMENT COST/UNIT ($ CAN)	Extended Equipment Cost	S/C Cost/Unit F	Extended S/C	PROFIT COST/UNIT ($ CAN)	Extended OH&P	UNIT PRICE| ($ CAN) F= (B+C+D+E +F)	Check Total	TOTAL PRICE ($ CAN) G= A x F
117	4.5.13		2320.13	Water pressure test (lugeon - 5 Stages)	hour	15	2.93	44	272.00	4,080	-	-		-	506.00	7,590		-	778.00	11,670	11,670
118	4.5.14		2320.14	Water Pressure Test - Successful connections	unit	36	1.22	44	113.33	4,080	-	-		-	211.00	7,596		-	324.33	11,676	11,676
119	4.5.15		2320.15	Uplift gauges	m	60	1.65	99	154.20	9,252	-	-		-	510.00	30,600		-	664.20	39,852	39,852
120	4.5.16		2320.16	Thermistor (measure temperature in grout holes)	unit	1	44.00	44	3,750.00	3,750	-	-		-	8,046.00	8,046		-	11,796.00	11,796	11,796
				Drainage Holes																	
121	4.5.17		2320.17	Drilling Holes for Drainage in Foundation from Drainage Gallery, Φ76 mm	m	3,200	1.32	4,239	133.36	426,752	-	-		-	134.38	430,016		-	267.74	856,768	856,768
122	4.5.18		2320.18	PVC Caps for Drainage Holes	unit	125		-		-	-	-		-	28.00	3,500		-	28.00	3,500	3,500
123	4.5.19		2320.19	Drilling Holes Upward for Drainage from Drainage Gallery into RCC, Φ76 mm	m	3,200	1.60	5,122	149.38	478,016	-	-		-	134.38	430,016		-	283.76	908,032	908,032
				Instrumentation																	
124	4.5.20		2320.20	Drilling Holes for piezometers	m	100		-		-	-	-		-	296.00	29,600		-	296.00	29,600	29,600
125	4.5.21		2320.21	Vibrating Wire and Standpipe Piezometers TYPE - 1, excluding Cables	unit	8		-		-	-	-		-	13,600.00	108,800		-	13,600.00	108,800	108,800
126	4.5.22		2320.22	Vibrating Wire and Standpipe Piezometers TYPE - 2, excluding Cables	unit	2		-		-	-	-		-	3,000.00	6,000		-	3,000.00	6,000	6,000
127	4.5.23		2320.23	Instrument Cable including PVC Conduits and Pull Boxes	m	2,700		-		-	-	-		-	28.00	75,600		-	28.00	75,600	75,600
128	4.5.24		2320.24	Thermistors Cable in RCC	unit	8		-		-	-	-		-	5,000.00	40,000		-	5,000.00	40,000	40,000
129	4.5.25		2320.25	V-notch Weirs	unit	4		-		-	8,243.00	32,972		-	6,000.00	24,000		-	14,243.00	56,972	56,972
130	4.5.26		2320.26	Vibrating Wire Weir Monitors.	unit	4		-		-	-	-		-	16,000.00	64,000		-	16,000.00	64,000	64,000
131	4.5.27		2320.27	Data logger, Terminal Box, Barometer Box including Grounding	LS	1		-		-	-	-		-	150,000.00	150,000		-	150,000.00	150,000	150,000
132	4.5.28		2320.28	Crest Survey Monuments	unit	4		-		-	-	-		-	2,000.00	8,000		-	2,000.00	8,000	8,000
				Concrete and RCC operations																	
133	4.5.29		2320.29	Roller Compacted Concrete (RCC)	m^3	200,738	0.79	158,485	73.65	14,784,354	159.41	31,999,645	3.36	674,480	1.96	393,446			238.38	47,851,924	47,851,924
				RCC - Trial Sections	m3	4,612	0.07	300	37.94	174,979	325.24	1,500,007	75.89	350,005				-	439.07	2,024,991	2,024,991
134	4.5.30		2320.30	Conventional Vibrated Concrete (CVC) (Crest and Flip Bucket)	m^3	11,100	3.59	39,834	331.98	3,684,978	585.59	6,500,049	42.79	474,969	16.35	181,485		-	976.71	10,841,481	10,841,481
135	4.5.31		2320.31	Facing Concrete	m^3	8,600	1.48	12,719	134.88	1,159,968	494.19	4,250,034	22.09	189,974	31.02	266,772		-	682.18	5,866,748	5,866,748
136	4.5.32		2320.32	GERCC or GEVR - Formed Faces	m^3	4,650	1.54	7,139	140.43	653,000	483.87	2,249,996		-	61.29	284,999		-	685.59	3,187,994	3,187,994
137	4.5.33		2320.33	Conventional Vibrated Concrete (North Abutment Crest Surface and Training Wall)	m^3	270	5.94	1,603	555.56	150,001	925.93	250,001		-	53.62	14,477		-	1,535.11	414,480	414,480
138	4.5.34		2320.34	Increase or decrease in quantity of cement - Bid Mix (rate only)	Kg	N/A					0.41								0.41	-	
139	4.5.35		2320.35	Increase or decrease in quantity of flyash - Bid Mix (rate only)	Kg	N/A					0.41								0.41	-	
140	4.5.36		2320.36	Increase or decrease in quantity of cement - Source B (rate only)	Kg	N/A					0.37								0.37	-	
141	4.5.37		2320.37	Increase or decrease in quantity of flyash - Source B (rate only)	Kg	N/A					0.37								0.37	-	
142	4.5.38		2320.38	Air-entraining Admixture	litre	315,000		-		-	1.38	434,700		-		-		-	1.38	434,700	434,700
143	4.5.39		2320.39	Retarder Admixture	litre	336,000		-		-	1.53	514,080		-		-		-	1.53	514,080	514,080
144	4.5.40		2320.40	Precast Concrete	LS	1	478.00	478	43,500.00	43,500	1,750,000	1,750,000		-		-		-	1,793,500.00	1,793,500	1,793,500
145	4.5.41		2320.41	Gallery Floor CVC Concrete	m^3	275	12.50	3,437	1,163.64	320,001	800.00	220,000	60.00	16,500	129.09	35,500		-	2,152.73	592,001	592,001
146	4.5.42		2320.42	Steel Reinforcement	kg	500,000	0.003	1,711	0.31	155,000	0.08	40,000	0.23	115,000	4.11	2,055,000		-	4.73	2,365,000	2,365,000
147	4.5.43		2320.43	Steel Guardrails	kg	5,200	0.03	161	2.82	14,664	15.00	78,000		-		-		-	17.82	92,664	92,664
148	4.5.44		2320.44	Waterstop	m	1,350	0.60	815	56.67	76,505	21.48	28,998		-		-		-	78.15	105,503	105,503
	4.6		2370	**NORTH DAM - Auxiliary Services**																	
				ELECTRICAL WORK																	
149	4.6.1		2370.01	Exothermic Connections.	unit	20		-		-	-	-		-	1,710.00	34,200		-	1,710.00	34,200	34,200
150	4.6.2		2370.02	Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 500 kcmil	m	815		-		-	-	-		-	137.00	111,655		-	137.00	111,655	111,655
151	4.6.3		2370.03	Bare, Stranded, Medium Hard-Drawn Copper Conductor, size 4/0 AWG	m	16		-		-	-	-		-	81.25	1,300		-	81.25	1,300	1,300
152	4.6.4		2370.04	Embedded Copper Grounding Plates	unit	7		-		-	-	-		-	1,714.29	12,000		-	1,714.29	12,000	12,000
				SUB-TOTAL NORTH DAM				**275,309**		**25,259,514**		**52,249,422**		**3,035,542**		**5,943,788**		**-**		**86,488,267**	**86,488,267**
																			Variance is in Unit Rate only in Bidder Total		
	5	**3100**		**Powerhouse Channels**																	
	5.1		**3120.00**	**Tailrace**																	
				CIVIL WORK																	
				Tailrace Rock Plug - Overburden Excavation																	
153	5.1.1		3120.01	Overburden Excavation, excluding excavation of Cofferdam 3 - Dry Conditions	m^3	12,000	0.02	203	1.58	18,960	-	-	6.50	78,000		-		-	8.08	96,960	96,960
				Tailrace Rock Plug - Rock Excavation																	

LOWER CHURCHILL PROJECT MUSKRAT FALLS CH0009 - CONSTRUCTION OF NORTH AND SOUTH DAMS				SCHEDULE OF PRICE BREAKDOWN																APPENDIX A2.1 Rev. B2	
				ISSUED FOR: BID DATE: 14 - Oct - 2014	BIDDER'S NAME: Bidder 2																
PRICE ITEM		WBS CODE		PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	MAN HOURS (AT SITE)	Extended M/H	MANPOWER COST/UNIT ($ CAN)	Extended Labour Cost	MATERIALS COST/UNIT ($ CAN)	Extended Material Cost	EQUIPMENT COST/UNIT ($ CAN)	Extended Equipment Cost	S/C Cost/Unit F	Extended S/C	PROFIT COST/UNIT ($ CAN)	Extended OH&P	UNIT PRICE| ($ CAN) F= (B+C+D+E +F)|	Check Total	TOTAL PRICE ($ CAN) G= A x F
No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE																		
154	5.1.2		3120.02	Tailrace Rock Plug Excavation including access ramp to powerhouse -Dry Conditions	m^3	170,000	0.06	10,964	5.91	1,004,700	7.06	1,200,200	12.35	2,099,500		-		-	25.32	4,304,400	4,304,400
155	5.1.3		3120.03	Tailrace Rock Plug - Underwater Excavation	m^3	34,000	0.15	5,232	14.12	480,080	22.06	750,040	26.18	890,120		-		-	62.36	2,120,240	2,120,240
				Tailrace Rock Plug - Stabilization and Rock Surface Protection																	
156	5.1.4		3120.04	Grouted Rock Bolts Type A	unit	70	2.30	161	214.29	15,000	71.43	5,000	214.29	15,000		-		-	500.01	35,001	35,001
157	5.1.5		3120.05	Grouted Rock Bolts Type C	unit	20	4.60	92	425.00	8,500	70.00	1,400	400.00	8,000		-		-	895.00	17,900	17,900
158	5.1.6		3120.06	Chain Link Wire Mesh - Installation	m^2	2,500	0.33	828	30.40	76,000	26.00	65,000	12.00	30,000		-		-	68.40	171,000	171,000
159	5.1.7		3120.07	Chain Link Wire Mesh - Removal	m^2	20,300	0.04	747	3.40	69,020	-	-	0.24	4,872		-		-	3.64	73,892	73,892
160	5.1.8		3120.08	Existing Temporary Safety Fence - Removal	m	1,200	0.12	147	12.50	15,000	-	-	3.75	4,500		-		-	16.25	19,500	19,500
				SUB-TOTAL TAILRACE				**18,374**		**1,687,260**		**2,021,640**		**3,129,992**		**-**		**-**		**6,838,893**	**6,838,893**
	6	**1100**		**Borrow Areas**																	
	6.1		**1117.00**	**Borrowed Construction Material**																	
161	6.1.1		3120.01	Overhaul of Borrowed Construction Material (rate only)	m3/km	N/A															2.00
			3120.01	RCC Coarse Aggregate - Crush & stockpile	tonne	N/A															20.00
			3120.01	RCC Fine Aggregate - Crush & stockpile	m3/km	N/A															25.00
ROW A	**CALCULATED TOTAL OF LUMP SUM AND UNIT PRICE ITEMS (BASED ON APPROXIMATE QUANTITIES)**			**Total Price**				885,881		102,173,408		113,993,325		81,294,932		18,335,191		-		**315,796,855**	**315,796,855**
								400,967		**36,938,284**										**315,796,855**	
				Add Craft Travel																	**$ 7,691,689.00**
				Revised Total Priice																	**323,488,544**

NOTES

Note 1 : If there has been an error in the calculation to establish the total of Column G (Total Price) or Column F (UNIT PRICE), then the figures of column A (Estimated Quantity of Units), column B (Man Hours), column C (Manpower), column D (Equipment) and column E (Profits) will prevail.

Note 2 : This Document is provided to the bidders in Native Excel File format. It is the bidders responsibility to verify cell formats and formulas.

Note 3 : Bidders shall not include any HST/GST from any source (whether from Bidder, subcontractor, vendors or suppliers) in the unit and lump sum prices in this Schedule of Price Breakdown. Bidders shall claim input tax credits on taxable supplies received from vendors, suppliers and subcontractors and thereof Bidders shall exclude HST/GST payable to the vendors,

FOR THE LOWER CHURCHILL PROJECT - MUSKRAT FALLS
This Appendix forms part of the Proposal submitted by:
Name of Bidder:
Request For Proposal, Package No: CH0009
Signature:
Date of Proposal: DD-MMM-YYYY

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Normalisation Summary

Item	Description	Estimated Quantity	Estimated Unit	Unit cost	Labour	Materials Consum	Materials Perm	Sub Trades	Services	Equipment Outside	Equipment Company	Total	Comments
	A. Bidder Commercial Exceptions												
1	Labour Risk				17,364,064	-	-	-	1,172,922	-	-	18,536,986	
2	1 Year Warranty				-	-	-	-	600,000	-	-	600,000	
3	100 year storm to 20 year storm				-	-	-	-	200,000	-	-	200,000	
4	Negotiate Unit Prices & Schedule for Quantity Increases				-	-	-	-	769,133	-	-	769,133	
5	Claim(s) acknowledgement at Substantial Completion				-	-	-	-	-	-	-	-	**Negotiate for unknown Indemnity Claims - NFA**
6	Liquidated Damages				-	-	-	-	-	-	-	-	**Delta All Bidders**
7	Holdback release				-	-	-	-	-	-	-	-	**Delta All Bidders**
	Sub Total A				17,364,064	-	-	-	2,742,055	-	-	20,106,119	
	B. Bidder Technical Exceptions												
1	Zone Materials payment by Tonne				-	-	-	-	-	-	-	-	**Delta All Bidders**
2	Payment for Major Components at LNTP				-	-	-	-	900,000	-	-	900,000	**Finance Costs**
3	Removal of upstream Crane Pads				-	-	-	-	-	-	-	-	**Delta all Bidders**
4	Zones 2 & 3 crushed from Area A				-	-	-	-	-	-	-	-	**Risk due to limited availability of Rock in stockpile.**
5	No Royalties				-	-	-	-	-	-	-	-	**Company Provided Item**
6	Waste to Area A				-	-	-	-	-	-	-	-	**Waste from Rock Removal & Demolition of existing CDs only**
7	No underwater excavation pre-splitting				-	-	-	-	-	-	-	-	**NFA Delta all Bidders**
8	RCC levelling concrete				-	-	-	-	-	-	-	-	**No net Fincial Impact**
9	GERCC on upstream face. Bid Item 136.1				-	-	-	-	-	-	-	-	**Method revision results in delta impact.**
10	Precast Concrete as Lump Sum				-	-	-	-	-	-	-	-	**No net Fincial Impact**
11	No HST on fuel				-	-	-	-	-	-	-	-	**Expected & required (ITC).**
12	Box culvert on North Dam eliminated				-	-	-	-	-	-	-	-	**NFA Delta all Bidders**
13	Schedule Time for Jet Grouting				-	-	-	-	2,450,000	-	-	2,450,000	**Based on 5 weeks extention.**
14	Fuel Supply - Exhibit 12 article 3.1.9				-	-	-	-	980,000	-	-	980,000	**14 days Risk at LD Rate**
15	Interrupted Company Power - fuel for generators				-	-	-	-	-	-	-	-	**Company Provided Item**
16	No allowance for Company Offices - Exhibit 7 article 4.0e				-	-	-	-	72,000	-	-	72,000	**Add for fully found office**
17	Intake Cofferdam as ramp for Temp. bridge				-	-	-	-	-	-	-	-	**No Issue**
18	All QA/QC testing by Company				-	-	-	-	-	-	-	-	**Delta all Bidders**
19	Revise uplift % on significant changes in scope.				-	-	-	-	841,070	-	-	841,070	**See also Bidder Commercial 4**
20	Engineer approval turn-around 10 day in lieu of 21 day.				-	-	-	-	156,000	-	-	156,000	**Extra Engineer for 6 months.**
21	Tailrace Channel during plug exc. In dry - no dewatering.				-	-	-	-	-	-	-	-	**Not required**
22	No source B for flyash & cement identified.				-	-	-	-	-	-	-	-	**No Financial Adjustment**
23	4 weather days/per month scheduled.				-	-	-	-	-	-	-	-	**In Labour Risk**
	Sub Total B				-	-	-	-	5,399,070	-	-	5,399,070	
	C. Company Technical Exceptions												
1	Laydown Areas B, A, G & F assumed available for Contractor.				-	-	-	-	-	-	-	-	**Delta All Bidders**
2	Dewatering Capacity not specified.				-	-	-	-	-	-	-	-	**Delta All Bidders**
3	Removal of crane pad on North Dam Downstream excluded				-	-	-	-	-	-	-	-	**Delta All Bidders**
4	Electronic Detonators for u/w blasting not mentioned.				-	-	-	-	-	-	-	-	**Delta All Bidders**
5	Bubble curtain not mentioned.				-	-	-	-	-	-	-	-	**Delta All Bidders**
6	South Dam start 2015 - possible conflict to C1				-	-	-	-	-	-	-	-	**Not an issue**
7	Use of Transmission ROW as crushing equipment set-up				-	-	-	-	-	-	-	-	**Delta All Bidders**
8	Sedimentation Pond for River Work after headpond at 25m				-	-	-	-	-	-	-	-	**Delta All Bidders**
9	RCC - Sloped Installation				-	-	-	-	-	-	-	-	
	Sub Total C				-	-	-	-	-	-	-	-	
	Total				**17,364,064**	**-**	**-**	**-**	**8,141,126**	**-**	**-**	**25,505,190**	

25,505,190

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Labour Risk 102,173,408

Item	Description			Estimated Quantity	Estimated Unit	Unit cost	Labour	Materials Consum	Materials Perm	Sub Trades	Services	Equipment Outside	Equipment Company	Total	Unit Rate
1	Labour Total from Proposal													-	
	Indirect	By Bidder		25%			-							-	
	Direct	36,938,284		25%			9,234,571							9,234,571	
	Travel	4,691,689		25%							1,172,922			1,172,922	
	Equipment	81,294,932		10%			8,129,493							8,129,493	
	Total						**17,364,064**	**-**	**-**	**-**	**1,172,922**	**-**	**-**	**18,536,986**	

18,536,986

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: 1 Year Warranty

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Unit Price from attachment A2.1			2	Year	300,000					600,000			600,000	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	**600,000**	-	-	**600,000**	

600,000

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: 100 year storm to 20 year storm

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Risk is Insurance Deductible of $2 million			10%		2,000,000					200,000			200,000	
	Occurrence risk 1 year in 10.						-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	**200,000**	-	-	**200,000**	

200,000

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Negotiate Unit Prices & Schedule for Quantity Increases

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Allow 5% growth			10%		7,691,331					769,133			769,133	
							-							-	
	Total Bid	323,488,544					-							-	
	Indirects	169,661,922												-	
	Net	153,826,623												-	
		7,691,331	5%											-	
	Total						**-**	**-**	**-**	**-**	**769,133**	**-**	**-**	**769,133**	

769,133

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Claim(s) acknowledgement at Substantial Completion

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Negotiate for unknown Indemnity Claims only.	NFA				-					-			-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Liquidated Damages

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Delta All Bidders					-					-			-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Holdback release

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Delta All Bidders					-					-			-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Zone Materials payment by Tonne

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Delta All Bidders													-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Payment for Major Components at LNTP

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Month 1 Progress in Payment Schedule	30,000,000			30,000,000	3%					900,000			900,000	
							-							-	
	Allow Financing 1 year						-							-	
														-	
														-	
														-	
	Total						**-**	**-**	**-**	**-**	**900,000**	**-**	**-**	**900,000**	

900,000

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Removal of upstream Crane Pads

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Delta all Bidders				NFA		-						-	-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Zones 2 & 3 crushed from Area A

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Risk is availability of rock in stockpile													-	
							-							-	
							-							-	
														-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: No Royalties

Item	Description			Estimated Quantity	Estimated Unit	Unit cost	Labour	Materials Consum	Materials Perm	Sub Trades	Services	Equipment Outside	Equipment Company	Total	Unit Rate
1	Company Provided Item													-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Waste to Area A

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: No underwater excavation pre-splitting

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: RCC levelling concrete

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: GERCC on upstream face. Bid Item 136.1

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	The initiative to replace the stepped face with a sloped face represents no real difference in cost between the Bidders.			1	NFA									-	
	The saving in stepped formwork (1.5m lifts) is offset by the increase in the CVC wedge required to create the smooth sloped face.						-							-	
							-							- - - -	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Precast Concrete as Lump Sum

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: No HST on fuel

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
Total							-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Box culvert on North Dam eliminated

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Schedule Time for Jet Grouting

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Risk is extension of time cost for jet-grouting work													-	
	Allow 5 weeks (see Bidder 3 schedule)						-							-	
							-							-	
	Allow 35 days delay at LD rate			35	Day	70,000.00					2,450,000			2,450,000	
														-	
														-	
	Total						-	-	-	-	**2,450,000**	-	-	**2,450,000**	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Fuel Supply - Exhibit 12 article 3.1.9

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Risk is supply failiure by Fuel supplier causing delay													-	
							-							-	
							-							-	
	Allow 14 days delay at LD rate			14	Day	70,000.00					980,000			980,000	
														-	
														-	
	Total						**-**	**-**	**-**	**-**	**980,000**	**-**	**-**	**980,000**	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Interrupted Company Power - fuel for generators

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: No allowance for Company Offices - Exhibit 7 article 4.0e

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Allow for small trailer x 1 incl furnishings & services			36	month	2,000					72,000			72,000	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						**-**	**-**	**-**	**-**	**72,000**	**-**	**-**	**72,000**	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Intake Cofferdam as ramp for Temp. bridge

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: All QA/QC testing by Company

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Revise uplift % on significant changes in scope.

			Estimated				Materials		Sub		Equipment			
Item	Description		Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Allowance of Force Account Work		13%		6,469,771					841,070			841,070	
													-	
	Total Bid	323,488,544											-	
	Indirects	-											-	
	Net	323,488,544											-	
		6,469,771	2%										-	
													-	
													-	
	Total					**-**	**-**	**-**	**-**	**841,070**	**-**	**-**	**841,070**	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Engineer approval turn-around 10 day in lieu of 21 day.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Allow for 1 additional Engineer for 6 months													-	
	Engineer	26	5	130		1,200.00	-				156,000			156,000	
														-	
														-	
														-	
														-	
	Total						**-**	**-**	**-**	**-**	**156,000**	**-**	**-**	**156,000**	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Tailrace Channel during plug exc. In dry - no dewatering.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: No source B for flyash & cement identified.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: 4 weather days/per month scheduled.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	In Labour Risk - Bidder Commercial 1													-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

-

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Laydown Areas B, A, G & F assumed available for Contractor.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Dewatering Capacity not specified.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Removal of crane pad on North Dam Downstream excluded

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Delta All Bidders			NFA			-						-	-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Electronic Detonators for u/w blasting not mentioned.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date:	2-Dec-14
Est. by:	RPL

Bidder 2

Item: Bubble curtain not mentioned.

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: South Dam start 2015 - possible conflict to C1

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Use of Transmission ROW as crushing equipment set-up

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: Sedimentation Pond for River Work after headpond at 25m

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1														-	
							-							-	
							-							-	
														-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	

Package # CH0009
Package: Construction of North and South Dams

Date: 2-Dec-14
Est. by: RPL

Bidder 2

Item: RCC - Sloped Installation

				Estimated				Materials		Sub		Equipment			
Item	Description			Quantity	Unit	Unit cost	Labour	Consum	Perm	Trades	Services	Outside	Company	Total	Unit Rate
1	Allow for additional formwork													-	
2	Allow for additional Time						-							-	
							-							-	
	Hold until Malcolm's opinion				10%						-			-	
														-	
														-	
	Total						-	-	-	-	-	-	-	-	