Exhibit 4 Supplier Document Requirements List Agreement Number: CD0502-001

#### **EXHIBIT 4**

SUPPLIER DOCUMENT REQUIREMENTS LIST



Lower	Supplier Document Requirements List (SDRL) ac SUBSTATIONS		Revision	Page
Churchill Project	Nalcor Doc. No.: LCP-SN-CD-4000-EL-LS-0004-01	B4	Date	
<b>₽</b>	SLI Doc. No.: 505573-4000-40EL-0010	03	07-Oct-2013	2

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- 1. Revision List
- 2. Supplier Document Requirements List
- 3. Supplier Documentation Requirements Descriptions
- 4. Legend / Instructions
- 5. Supplier Document Register

To be completed by the Supplier or Contractor

Lower	Supplier Document Requirements List (SDRL) ac SUBSTATIONS		Revision	Page
Churchill Project	Nalcor Doc. No.: LCP-SN-CD-4000-EL-LS-0004-01	B4	Date	
	SLI Doc. No.: 505573-4000-40EL-0010	03	07-Oct-2013	3

#### **REVISION LIST**

		R	evision			Remarks
Nº	Ву	Chec	Appr.	Appr.	Date	
03	MH	SS/LC	KM	MM	07-Oct-2013	Re-issued for Acceptance
02	MH	SS/LC	KM	MM	19-Sep-2013	Re-issued for Acceptance
01	MH	SS/LC	KM	MM	27-Jun-2013	Re-issued for Acceptance
00	MH	SS/LC	KM	MM	19-June-2013	Issued for Acceptance

#### Note:

This SDRL shall be read in conjunction with the Appendices A1 to A7 of the document LCP-SN-CD-4000-EL-DC-0001-01, "Substation Engineering and Design Requirements".



	wer	Supplier Document Re- ac SUBS			DRL)					1	Revision			Page
	ırchill L oject	Nalcor Doc. No.: LCP-SN	-CD-400	0-EL-LS-	0004-0	01			B4			Date	Y	
0.00	Jeer	SLI Doc. No.: 5055	73-4000-	40EL-00	10				03		0	7-Oct-20	113	
				SUPPLI	ER DC	CUMEN	TREQUIR	EMENT	S TABLE					
SDRL Code		Type of Document	Provide with Proposal	Submit Prior to Start of Fabrication / Construction	After Shipment	With Shipment	Minimum Documents approved Coded 1 prior to Inspection Release	As Built	Final Documentation Location (R01 / R02 / R05/ R99)	Final File Format	Submission Requirements Date Required - Weeks After Receipt of Order (ARO)	Submission Requirements Monthly		Notes
A.	GENERAL										8.00			
A01	Supplier Do	cument Register (SDR)		1E+1P		ì	1E+1P			PE/NE	2		Update and submit as	requested. Exhibit 4
A02	Control Sch	edule	1E+1P	1E+1P						PE/NE			Exhibit 3	
A03	Monthly Ris	k Reports		1E+1P						PE		Note	Monthly progress repo Exhibit 3	t to be submitted in 1E+1
A04	Risk Manag	ement Plan	1E+1P	1E+1P						PE	2		Exhibit 3, Section 9	
A06	Monthly Pro	gress Reports		1E+1P						PE		Note		t to be submitted in 1E+1
A07	Project Exe	AND ADMINISTRAÇÃO POR PORTO DE PROPERTO DE	1E+1P	1E+1P						PE	2	Leanette.	Exhibit 3	
A08	Permits	S100 S10 S10 S10 S10 S10 S10 S10 S10 S10	meter M	1E+1P		1E+1P	1E+1P			PE	2		Exhibit 6	
A11	g: //www.cs.2	d Transportation Strategy	1E+1P	1E+1P	1	1 100	1E+1P		-	PE	2		18	
A13	(1992)	Release Authorization				1E+2P	1E+1P			PE	Note		2 weeks prior to shipm	ent
A28	Health and	Anne de recitat de manero attrater de la companya del companya de la companya de la companya del companya de la companya del la companya del la companya de	1E+1P	1E+1P			1E+1P			PE	2		Exhibit 5	
A35	Descriptions of the second	ecific Environmental Protection Plan (C-	1E+1P	1E+1P	2:		1E+1P			7050	2		, 158.007130+2*	
LVICTORY N	SEPP)	#I	JE+IP	Name Call			Secret Part			PE	2		Exhibit 6 & 11	
A39	Survey Rep			1E+1P		Ç.	1E+1P			PE			Update as requitred	
		rironmental Performance Report								PE		Х	Exhibit 6, Appendix C	
A41		Safety Training Records and Certificates	1E+1P	1E+1P			4F 4B			PE	2		Exhibit 5	
A42 A43		evelopment and Control Plan  Packing List	1E+1P	1E+1P		1E+2P	1E+1P			PE PE	Note		Exhibit 3 2 weeks prior to shipm	ent
A44		edule Baseline Document	1E+1P	1E+1P		1507.21	1E+1P			PE	TWOID		Exhibit 3	Sit.
2 00	Permitting S		1E+1P	1E+1P	7 (		1500			PE/NE			Exhibit 6	
		us General Documents	328_68	Note						PE			To be done twice: befo completion of Detailed	
В.	ARRANGEME	NT DRAWINGS		28.24 28.24						Mary Co				
B01	General Arra	angements and Layouts		1E+1P			1	1E+2P	R01	PE/NE			DL1503	
B02	Elevation/Pr	rofile Drawings		1E+1P				1E+2P	R01	PE/NE			DL1503	
B03	Cross Section	on Drawings		1E+1P				1E+2P	R01	PE/NE			DL1503	
B04	Arrangemer	nt and Sub Assembly Drawings		1E+1P				1E+2P	R01	PE/NE			DL1526	
B05	Loading Dra	wings		1E+1P				1E+2P	R01	PENE			DL1407, DL1408, DL15	07
B06	Cable and T	ray Routing Drawings, Layout and Design		1E+1P				1E+2P	R01	PEINE			DL1320, DL1504	
B99	Miscellaneo	us Arrangement Drawings		1E+1P				1E+2P	R01	PENE			As Required Design De	liverables
c.	DESIGN & OP	ERATIONAL DRAWINGS			267									
C03	HVAC Sche	matic and Flow Diagrams		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1316	
C04	Logic Diagra	ams		1E+1P			1E+1P	1E+2P	R01	PENE			DL1617	
C05	System Sch	ematic Diagrams		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL 1603	- 1
C06	Sequential a	and Control Function Charts		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1617	
C07	Functional D	Description or Process Control Narratives		1E+1P				1E+2P	R01	PE/NE			DL1617	
C99	Miscellaneo	us Operational Drawings		1E+1P				1E+2P	R01	PE/NE			As Required Design De	liverables
D.	DETAIL DRAW	/INGS											l .	
D03	Equipment (	Details	AND AND A	AUG MIN AN									See D07	
D04	Fabrication.	Installation and Shop Drawings		1E+1P	1		1E+1P	1E+2P	R01	PE/NE			DL1113,DL1114, DL11	15, DL1315, DL1319



	wer	Supplier Document F ac SUE	tequirement ISTATIONS	ts List (S	DRL)					F	Revision			Page
	rchill L oject	Nalcor Doc. No.: LCP-S	N-CD-4000	-EL-LS-	0004-0	1			B4			Date		
		SLI Doc. No.: 505	573-4000-4	10EL-00°	10				03		07	-Oct-20	13	
				SUPPLI	ER DO	CUMENT	REQUIR	EMENT	STABLE					
SDRL Code		Type of Document	Provide with Proposal	Submit Prior to Start of Fabrication / Construction	After Shipment	With Shipment	Minimum Documents approved Coded 1 prior to Inspection Release	As Built	Final Documentation Location (R01 / R02 / R05/ R99)	Final File Format	Submission Requirements Date Required - Weeks Affer Receipt of Order (ARO)	Submission Requirements Monthly		Notes
D06	Foundation	Drawings		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1103 to DL1110, D	_1308, DL1309
D07	Equipment	Drawings		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1314, DL1526	
D08	Shipping Dr					1E+1P	1E+1P	1E+2P	R01	PE/NE	***		DL 1526	
D99	Miscellaned	ous Detail Drawings		1E+1P			1E+1P	1E+2P	R01	PENE			DL1117, DL1118, DL1 DL1122, DL1301, DL1 DL1305, DL1306, DL1 DL1312, DL1303, DL1 DL1321, DL1502, DL1 DL1506, DL1507, DL1 DL1511, DL1512, DL1 DL1516 DL1517, DL1 DL1521, DL1522, DL1	116, DL1111, DL1112, 119, DL1120, DL1121, 302, DL1303, DL1304, 307, DL1310, DL1311, 317, DL1310, DL1320, 503, DL1504, DL1505, 508, DL1504, DL1510, 513, DL1514, DL1515, 518, DL1512, DL1526, 606, DL1611, DL1613,
E.	ELECTRICAL	JINSTRUMENTATION & INTERCONNECTIONS				911.7								757
E01	Interconnec	ction Block Diagrams		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1610	
E02	Wiring Diag	grams/Schematics		1E+1P		1E+1P	1E+1P	1E+2P	R01	PENE			DL 1609	
E03	Single Line	Diagrams		1E+1P		1E+1P	1E+1P	1E+2P	R01	PEINE			DL1501, DL1601	
E04	Control Sys	stem Network Diagram		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1603	
E05	Panel and	Annunciator Layout Drawings		1E+1P			1E+1P	1E+2P	R01	PENE			DL1604	
E06	Panel Deta	ils Diagrams		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1607, DL1608	
E08	Block Diagr	rams		1E+1P			1E+1P	1E+2P	R01	PENE			If Requird	
E09	Cable Spec	cifications		1E+1P			1E+1P	1E+2P	R01	PENE			DL1421	
E99		ous Electrical Instrumentation &		1E+1P			1E+1P	1E+2P	R01	PE/NE			As Required Design D	reliverables
F.	DATASHEET	ction Documents									Sugaritan'			
F01		Data Sheet	1E+1P	1E+1P		1E+1P	1E+1P	1E+2P	R01	PE			Taskelasi Data Sakas	ule(TDS) & As Required.
F04		sterial Safety Data Sheet (MSDS)	ILTO	1E+1P		1E+1P	TL-TI	icizi.	R01	PE	Note		DL1528 - 4 weeks priodescribed in the procu	3 0 1
F05	Mechanica	Properties of Materials		1E+1P			1E+1P		R01	PE			If Requird	
F07	Shipping B	ills of Material				1E+1P		1E+2P	R01	PE	Note		Packing list - 4 weeks	prior to shipment
F99	Miscellane	ous Data Sheets	1	Note			1E+1P		R01	PE	***		As required, DL1618	
G.	SCHEDULES	ILISTS										15		
G01	Bill of Mate	rials/Equipment List		1E+1P		1E+1P	1E+1P	1E+2P	R01	PEME			DL1527, DL1605	
G03	Cable Sche	edule		1E+1P			1E+1P	1E+2P	R01	PE/NE			DL1610, DL1614 DL1	529
G05	Preventativ	e Maintenance Schedule		1E+1P			1E+1P	1E+2P	R01	PE			DL1701, DL1702	
G07	Alarms and	1 Trip Set Point List		1E+1P			1E+1P	1E+2P	R01	PEME			DL1612, DL1616	
G09	Input/Outpu	ut List		1E+1P			1E+1P	1E+2P	R01	PEME			DL1612, DL1616	
G10	Equipment	Identification and Tagging		1			1E+1P	1E+2P	R01	PE			DL1530	
G99	ANTO RIM	ous Schedule/List Documents		Note				200520	R01	PE		(1)	As required	
Н.	CALCULATIO	Catalana Perang Processor Andrews (Antrone Medical Antrone Processor Antrone		( Administra					1,101	I WE			- Indanod	
H01	president models	al Calculations		1E+1P			1E+1P		R99-1	PE			As Required	
In Uil	- o mediul	a Calculations  Support Calculations	-	1E+1P		-	1E+1P		R99-1	PE			DL1103 to DL1110, E	



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	o,cci	SLI Doc. No.: 5055	73-4000-	40EL-00	10	357			03		07	-Oct-20	13	
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SDRL Code		Type of Document	Provide with Proposal	Submit Prior to Start of Fabrication / Construction	After Shipment	With Shipment	Minimum Documents approved Coded 1 prior to Inspection Release	As Built	Final Documentation Location (R01 / R02 / R05/ R99)	Final File Format	Submission Requirements Date Required - Weeks Affer Receipt of Order (ARO)	Submission Requirements Monthly		Notes
H03	Structural C	alculations		1E+1P			1E+1P		R99-1	PE			DL1310	
H10	Fire Protect	ion Calculations		1E+1P			1E+1P		R99-1	PE			DL 1318	
H12	Mechanical	Calculation - Misc.		1E+1P			1E+1P		R99-1	PE			DL1316, DL1317, DL1	318
H34	Structure St	tability Calculation		1E+1P			1E+1P		R99-1	PE			DL1113, DL1114, DL1	115, DL1310
H36	Concrete M	ix Calculation		1E+1P			1E+1P		R99-1	PE			As Required	
H <b>4</b> 0	AC Station	Service Load Calculation		1E+1P			1E+1P		R99-1	PE			DL1415	
H41	DC Station	Service Load Calculation		1E+1P		345.	1E+1P		R99-1	PE			DL1416	
H42	Primary Gro	ounding Calculation		1E+1P			1E+1P		R99-1	PE			DL1403	
H51	Relay Settin	ng Calculation		1E+1P			1E+1P		R99-1	PE			DL1616	
H52	Sag and Te	nsion Calculation		1E+1P			1E+1P		R99-1	PE			DL1,408	
H54	Design Load	d Cases		1E+1P			1E+1P		R99-1	PE			DL1407, DL1408, DL1	411, DL1412
H65	Current Trai	nsformers Design Calculations		1E+1P			1E+1P		R99-1	PE			DL1616	
H99	Miscellaneo	us Calculations Documents		Note			1E+1P		R99-1	PE			DL1402, DL1404, DL1 DL1410, DL1413, DL1 DL1418, DL1419, DL14 DL1423	412, DL1414, DL1417,
J.	PERFORMAN	CE DATA												
J02	Current and	Potential (CT/VT) Transformer Curves		1E+1P			1E+1P	1E+2P	R99-1	PE			DL1701	
J06	Performanc	e Guarantee	1E+1P	1E+1P	1E+1P		1E+1P	1E+2P	R99-1	PE			As Required	
J10	Soil Gradua	tion Analyses	7	1E+1P		WOLLEY.	1E+1P		R99-1	PE			DL1401	
J12	List of Envir	onmental Emission and Effluent		1E+1P			1E+1P	1E+2P	R99-1	PE			As Required, Exhibit 6	11
J99	Miscellaneo	us Performance Data Documents		Note				1E+2P	R99-1	PE			As Required	
K.	PROCEDURE	S												
K07	Factory and	Site Test Procedures (FAT/SAT)		1E+1P			1E+1P		R99-1	PE	Note		4 weeks prior to FAT/S	AT
K10	Manufacturi	ng/Fabrication Procedure		1E+1P			1E+1P		R99-1	PE			As Required	
K11	Cable Wiring	g Procedure		1E+1P			1E+1P		R99-1	PE		X 100 1	DL1235	
50.00000	Commission	ning Procedures		Note			1E+1P		R99-1	PE		-001000	DL1251, DL1255	
K16	Instruction for and Long Te	or Transportation, Storage, Warehousing erm Storage		1E+1P		1E+1P	1E+1P		R99-1	PE	Note		DL1701 - 3 weeks prio	to shipment
K22	Routine Tes	t Procedure		1E+1P			1E+1P		R99-1	PE			DL1231	
K23	Sample Tes	t Procedure		1E+1P			1E+1P		R99-1	PE			DL1233	
K24	Construction	Method Statements and Procedures		1E+1P		1E+1P	1E+1P		R99-1	PE			DL1252, DL1253	
(99-1	Miscellaneo	us Procedures Documents				1E+1P	1E+1P		R99-1	PE			DL1201, DL1202, DL1: DL1234, DL1237, DL1: DL1272	
99-2	Preservation	n Procedures Documents	e .	40		1E+1P	1E+1P		R99-2	PE		_	DL1236	
L.	MAINTENANC	E & SPARES												
L02	Recommend	ded Commissioning and Start-up Spares	1E+1P			1E+1P			R01	PE			DL1531	
L03	Recommend	ded 12 and 24 Months Operation Spares	1E+1P			1E+1P			R01	PE			As Required	
L04	Recommend	ded Critical Spares (Insurance)	1E+1P			1E+1P		-	R01	PE			As Required	
			35.30			4E 4D			R01	PE			DL1531	
L05	Special Tool	s List	1E+1P	'		1E+1P			KUI	FE		- 1	DETOOT	



	wer	Supplier Document Req ac SUBST		s List (SI	ORL)					F	Revision			Page
	rchill ject	Nalcor Doc. No.: LCP-SN-	CD-4000	-EL-LS-	0004-0	1			B4			Date		
	Jeer	SLI Doc. No.: 50557							03		07	-Oct-20	13	-
				SUPPLI	ER DO	CUMENT	REQUIR	EMENTS	S TABLE					
SDRL Code		Type of Document	Provide with Proposal	Submit Prior to Start of Fabrication / Construction	After Shipment	With Shipment	Minimum Documents approved Coded 1 prior to Inspection Release	As Built	Final Documentation Location (R01 / R02 / R05/ R99)	Final File Format	Submission Requirements Date Required - Weeks After Receipt of Order (ARO)	Submission Requirements Monthly		Notes
M01	Material Te	st Certificates		1E+1P		1E+1P	1E+1P		R99-1	PÉ			As received and prior	to inspection release
M02	Instrument/	Electrical Test Report		1E+1P			1E+1P		R99-1	PE	Note		3 weeks prior to FAT	& Before Shipment
M09	Fire Testing	g Certificates				1E+1P			R99-1	PE			As Required	
M10	Inspection I	Release Certificate				1E+1P			R99-1	PE	Note		Prior to Shipment	
M16	Painting/Co	pating Test Report	17.7			1E+1P			R99-1	PE	Nate		3 weeks prior to FAT	& Before Shipment
M17	Steel Manu	facturing Reports				1E+1P			R99-1	PE	Note		3 weeks prior to FAT	& Before Shipment
M19	Factory and	d Site Test Report (FAT/SAT)				1E+1P			R99-1	PE	Note		3 weeks prior to Ship after Testing for SAT	ment for FAT and 3 week
M20	Commissio	ning Report				1E+1P			R99-1	PE			alter resulting for SAT	
M24	Manufactur	er's Type Test List and Report	1E+1P			1E+1P			R99-1	PE			Only Type Test Certif Equipments with BID	icates are required for M
M25	Reports an	d Certificates for Routine Tests				1E+1P			R99-1	PE			Equipments with bio	Гюроза
M26	Reports for	Sample Tests				1E+1P			R99-1	PE				
M27	Mechanica	Completion Report				1E+1P			R99-1	PE				
M28	Certificate of	of of Origin				1E+1P			R99-1	PE				
M29	Preservation	on Records				1E+1P			R99-1	PE				
M99	Miscellane	ous Test & Inspection Reports				1E+1P			R99-1	PE				
Q	QUALITY AS	SURANCE / QUALITY CONTROL								-				
Q01	Quality Ass	surance System Registration Certificate	1E							PE				
Q02	Quality Ass	surance System Manual	1E							PE				
Q03	Quality Pla	n	1E						R99-1	PE				
Q04		and Test Plan(s) nd Site Works)		1E+1P		1E+1P			R99-1	PE/NE			Sample to be provide	d with Bid
Q05	Certificates	of Conformity (Factory and Site Works)				1E+1P			R99-1	PE	Note		Not more than 4 days	after inspection
Q07	Internal/Ex	ternal Audit Schedule	1E	1E+1P									Audit schedule to be	provided for all activities
Q08	Manageme	ent Review Minutes of Meeting	1E											
Q09	Third Party	Surveillance Report	1E						R99-1					
Q10	NCR Regis	ster and associated close out reports							R99-1	PE		x		ified immediately of any of the specified material
Q11	Quality Ma	nagement Certificate for Manufacturer							R99-1	PE				
Q12	Declaration	n of Installation and Inspection Completion											See M27, Exhibit 7	
Q13	Authorized	Deviations							R99-1	PE	Note		As required	
Q99	Miscellane	ous Quality Documents							R99-1				On completion of the	Scope of Work
R.	MANUALS												The Name of Street	
R01	Installation Maintenan	, Commissioning, Operating and ce Manual			1E+1P	1E+1P		1E+2P	ROT	PE			DL1701, DL1702	
R05	Dispatch D	Possier				1E+1P			R05	PE				
R99-1	Miscellane	ous Manuals (EPC Record Book)							R99-1	PE			As required	
R99-2	Miscellane	ous Manuals (Preservation Manuals)			1				R99-2	PE			As required	



A01 Supplier Document Register (SDR) will capture de	eliverable requirement	Date  07-Oct-2013  - documents list identifying individual s as agreed by Contractor and Compaision controlled document.	document deliverables. This recister			
SDRL Definitions  A - General  Supplier Document Register (SDR)  Supplier Document Will capture de	iment Register (SDR) sliverable requirement his document as a rev	– documents list identifying individual s as agreed by Contractor and Compa	document deliverables. This recister			
A A - General  Supplier Document Register (SDR)  Supplier Document Register (SDR)	eliverable requirement his document as a rev	s as agreed by Contractor and Compa	document deliverables. This recister			
Supplier Docu A01 Supplier Document Register (SDR) will capture de	eliverable requirement his document as a rev	s as agreed by Contractor and Compa	document deliverables. This register			
A01 Supplier Document Register (SDR) will capture de	eliverable requirement his document as a rev	s as agreed by Contractor and Compa	document deliverables. This register			
	3 Coordination Proce		ny. Contractor is responsible to create			
A02 Control Schedule As per Exhibit		dure				
A03 Monthly Risk Reports Risk Reports requirements	inclusive of the Risk F for the Monthly Risk R	rried out by a Contractor aimed at add tegister, are part of the subject matter eport and Risk Register are set forth in tractors and Suppliers (Document # LO	of the Monthly Risk Reviews. The n sections 2.3 and 2.4 of the LCP Risk			
A04 Risk Management Plan Contractor/Su	pplier. The contractor		ontext and tools adopted by a an using as guidance section 2.2 of the ument # LCP-SN-CD-0000-RI-PR-0001			
A06 Monthly Progress Reports As per Exhibit	3 Coordination Proce	dure.				
A07 Project Execution Plan As Required.		0.000				
A08 Permits Provide copies Requirements		ntation, as described in Exhibit 6 (Envi	ronmental and Regulatory Compliance			
A11 Logistics and Transportation Strategy developing the Instructions ar	carriers or freight forw e strategy: (SLI docum nd (Document # MFA-S	n strategy for the Work which shall inc arders. The following documents shall ent # GP-5500-F-01-E) Documentation SN-CD-6140-TL-SP-0003-01) Docume ssion Line Components.	be taken into consideration when			
A13 Expediting Release Authorization Include Shippi	ng Bill of Materials, Q	uality Surveillance Release, and Shipp	ing Release Notice.			
A28 Health and Safety Plan As per Exhibit	5 Health and Safety F	equirements.				
A35 Contract Specific Environmental Protection Plan template (Pro of the Project-	ovided in Exhibit 11). T Wide Environmental P					
A39 Survey Report Geotechnical I	Investigation Report, N	leasurement of Soil Resistivity(Wenne	er Method).			
A40 Monthly Environmental Performance Report of Exhibit 6 (El	nvironmental and Reg		ontractor, in accordance with provisions nis report shall include a Monthly Fuel			
	ds and certificates for petencies, Trade Certi	employees including, but not limited, to fications, etc.	Confined Spaces, Fall Protection,			
A42 Schedule Development and Control Plan As per Exhibit	3 Coordination Proces	dure,				
A43 Provisional Packing List item numbers;	A preliminary Packing List listing the items planned to be shipped against the Purchase Order. In addition to the item numbers; tag numbers; planned quantities to be shipped the P/L should also indicate the approximate weights and dimensions.					
A44 Control Schedule Baseline Document As per Exhibit	3 Coordination Proced	dure.				
A45 Permitting Schedule Provide a deta Requirements	Provide a detail activity for each permit as per Exhibit 6 - Environmental and Regulatory Comoliance Requirements					



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A99	Miscellaneous General Documents	* Constructability Rev * Maintainability and 0 * Compatibility Reviev * Substation Performa	d report agains liews Operability Rev vs unce Analysis a	t every review):	
В	B - ARRANGEMENT DRAWINGS				
B01		including overall horiz	ontal dimensions, etc. Drawin	gs are normally in horizontal (planar	onents or construction elements, elevations and/or topographic contou ) view, with the location and orientatio
B02	Elevation/Profile Drawings		ne vertical arrai	ngement of the components or const	rtical plane, i.e. in elevation, for the ruction elements, usually with horizon
B03	Cross Section Drawings			ents or construction elements in horiz s or construction elements.	zontal or vertical planes which are cut
B04	Arrangement and Sub Assembly Drawings	Plans and Sections w	ith nomenclatu	re.	
B05	Loading Drawings	Foundation drawings,	loading requir	ements and anchor bolts.	
B06	Cable Tray Routing Drawings, Layout and Design	Plans , elevations and	d sections.		
B99	Miscellaneous Arrangement Drawings	As described in the pr	rocurement do	cuments and on SDRL or considered	I necessary by Contractor.
С	C - DESIGN & OPERATIONAL DRAWINGS				
C03	HVac Schematic and Flow Diagrams	Diagrams shall be dra	awn using stan	be provided for all heating, ventilating dard symbols and tagging systems a n of flow and location of system com	dopted for the project as advised by t
C04	Logic Diagrams	Process Logic shall b	e detailed:		
C05	System Schematic Diagrams	Supplier to provide so	chematics for s	ystem diagram.	
C06	Sequential and Control Function Charts	shutdown and other s	equential oper	ovides an overview of system behav ations. A Continuous Function Char ce. It complements the SFC and both	(CFC) shall address the functions the
C07	Functional Description or Process Control Narratives	limited to: descriptive sequences, loop narr	s, flags, reques atives, start co	-based detailed description of the pr sts and commands, permissives, mon nditions, start actions, run conditions is, resume conditions and actions.	
C99	Miscellaneous Design & Operational Drawings	As described in the p	rocurement do	cuments and on SDRL or considered	d necessary by Contractor.
D	D – DETAIL DRAWINGS				
D03	Equipment Details	Details of equipment	construction, c	apacity, etc. to meet the Purchaser's	s specification.
D04	Fabrication, Installation and Shop Drawings	Drawings to show full dimensional drawings			pplied. To include Plating Drawings a
D06	Foundation Drawings	Provide all drawings	associated with	n foundation details.	
D07	Equipment Drawings	To include Rigging / notes regarding lifting			rith all necessary dimensions. All rele



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D08	Shipping Drawings	Provide all drawings a	ssociated wit	n shipping activities.				
D99	Miscellaneous Detail Drawings	As described in the pr	ocurement do	cuments and on SDRL or considered	necessary by Contractor.			
E	E - ELECTRICAL/INSTRUMENTATION & INTERCONNEC	TIONS						
E01	Interconnection Block Diagrams	the field installation or	interconnecti		pplier requires the field contractor to do unction boxes/devices Tag number shal			
E02	Wiring Diagrams/Schematics	constructed by the Su the details for each ca within the unit. All unit manufacturer, type nu cables and wires shall Seller. Functional desi- comprehend the opera numbers, tag numbers location of each item of the understanding of the connections are subje- scope shall be clearly	pplier or Sub- ble core and onnec s and connec mbers, cable be identified criptions for e ation and cont s, termination of equipment. he system's c ct to emergen identified. Sc	Supplier specifically for this order. The wire and the connections down to the tions shall be uniquely identified. All vand wire types, sizes, colour and ID rat both ends to a numbering schema ach connection or signal path shall be iguration of the unit. Schematic drawil joint (plug/socket etc.), power supply The diagram shall also include any non- the diagram shall also include any non- structure of the state of the sy shutdown arrangements. Equipme ematic diagrams for instrument relay	umber shall be included. All internal agreed between the Purchaser and the e included to enable users to fully ngs shall include cable types, cable sources, earthing arrangements and otes that may be necessary to enhance indicating which components and nt and Cables not in the Supplier's			
E03	Single Line Diagrams	An interconnectivity re	presentation	of all electrical elements of a system.				
E04	Control System Network Diagram			nmunications system shall be provide nd how they are interconnected. Addr	ed. The drawing(s) shall show all the essing information shall be provided at			
E05	Panel and Annunciator Layout Drawings	General arrangement a separate document.	of Panel comp	ponents complete with identification to	ags. Include BOM unless being issued a			
E06	Panel Detail Diagram	Provide details of equi	pment layout,	terminal blocks and wiring schedule.				
E08	Block Diagram	Provide Control System Block diagram showing major system components (complete with tag No. and description) and their interconnection.						
E09	Cable Specifications	Provide Technical data and specifications for cables connected to equipment.						
E99	Miscellaneous Electrical/Instrumentation & Interconnections Documents	As described in the pro	ocurement do	suments and on SDRL or considered	necessary by Contractor.			



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F01	Equipment Data Sheet	complete. Also, Technical inform - Circuit Breakers * - Disconnect switches - Instrument transform - Surge Arresters * - Post Insulators * - Control system (met - Protection system ** - Wy switchgear with A - ac and do Distributio - Batteries * - Chargers * - Lighting system ** - Fire alarm system ** Notes: * Including, but not lin ** In addition to the al enclosed	* ering, control, SC  * * * * * * * * * * * * * * * * * *	ed in notes below, of the following  CADA) **  s (if applicable), technical data sh	eets, catalogues, reference list ogues of main subcomponents shall be
F04	WHMIS Material Safety Data Sheet (MSDS)			fficient health and safety informat nd any other relevant Provincial or	ion to ensure compliance with the Local legislation.
F05	Mechanical Properties of Materials			he following mechanical propertie nd any other information as reque	s: Tensile strength, Yield Strength, sted.
F07	Shipping Bills of Material	Weights and dimension	ons data for all n	naterials to be shipped.	
F99	Miscellaneous Datasheets	As described in the p	rocurement docu	ments and on SDRL or considere	d necessary by Contractor.
G	G - SCHEDULES/LISTS				
G01	Bill of Materials / Equipment List		ipply voltages, o	utput characteristics, materials, se	licate the major features of each item, e.g et pressure, design pressure, range, etc.
G03	Cable Schedule	description of all cabl and scope of installat be updated monthly of the dispatch of all equ	es, source, desti ion and terminat or when significal uipment to site at	nation. Also a field showing scop- ion for each cable (i.e. by supplie nt changes occur. This document fter which any changes will be ma	minimum: Cable Tag, a brief technical e of supply (i.e. by supplier, or by others) r or by field contractor). The schedule sha will not be approved to final status until de directly onto the purchasers Master Excel format. Samples can be provided
G05	Preventative Maintenance Schedule			rentative maintenance tasks/main n instructions are to be provided.	tenance frequencies, where relevant
G07	Alarms and Trip Set Point List	Provide list in excel for	ormat and hard c	opy. Sample can be provided upo	on request.
G09	Input/Output List				te hardware and software addresses of Project sample can be provided upon
G10	Equipment Identification and Tagging				
G99	Miscellaneous Schedule/List Documents	Contractor shall prov -Factory Inspections -Mechanical Inspecti -Commissioning Stat As described in the p	and test Plans books and test Plan c Checks Plan d	efore FAT ns during Installation	ed necessary by Contractor.
		II.			



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SELDOR, No.: 580973-4000-48EL-0010   Six   Six   One-sension		Nalcor Doc, No.;LCP-SN-CD-4000-EL-LS-	0004-01	B4	Date			
Architectural Calculations  8. Notes Design Calculations shall be provided for each partition and late to a position shall be provided for the place in the place of the place	ENOS AMERI	SLI Doc. No.: 505573-4000-40EL-00	10	03	07-Oct-2013			
Contract Support Calculations   Ca	H01	Architectural Calculations	Noise Design Calculareas is below purchal equipment for areas si     Thermal Calculation temperatures specified     Calculations shall a	ulations shall to sers stated re uch as Galley as shall deterr d by the purch lso be provide	be provided for wall, partition and liner quirements. Noise design calculations s and Laboratories (any equipment wit nine heat emitted to the atmosphere for aser.	s shall also be provided for proprietary h any moving or mechanical parts). r project loading and ambient		
- Identification of all applicable loading conditions - Loading, bending moment and shear froz diagrams for all members, bracings and connections - Velocity and a service programs in the political service programs in the political service programs in the provided in the contract documents and secondarios with NFPA requirements. Let a principal applications to detail pipe friction losses, nozzle sizes, and discharge rates in accordance with NFPA requirements. Let a principal application of the provided in the contract documents and technical specifications, not already outlined in Attached Se and So of this document, shall be provided.  H12  H34  Structure Stability Calculation  Calculations shall be provided for the following, as a minimum: - Identification of all applicable loading conditions - Stability including overturing and stilling Location of resultant with respect to mid third of base - Location and see of during seystem components - Location and see of during seystem components - Stability of natural in-situ meterials and/or stopes affected by construction or during operation.  Calculations shall be provided for the following, as a minimum: - Mix designs for constructed fill allopes - Stability of natural in-situ meterials and/or stopes affected by construction or during operation.  Calculations shall be provided for the following, as a minimum: - Mix designs for constructed fill allopes - Stability of natural in-situ meterials and/or stopes affected by construction or during operation.  H35  Concrete Mix Calculation  Full report and calculation  Full report and calculation  Full report Calculations and drawings.  H34  Design Load Cases  All calculations shall include zoning, Including 3 zones for co, and 1 zone for ac.	H02	Foundation Support Calculations	Identification of all ap     Bearing capacity req     Bearing capacity of the second capacity	oplicable load uirements he foundation	ing conditions for the applicable loading condition			
requirements. i.e.: sprinklers as primary protection.  H12 Mechanical Calculations - Misc.  All other mechanical calculation requirements specified in the contract documents and technical specifications, not already outlined in Attached 5a and 5b of this document, shall be provided.  Calculations shall be provided for the following, as a minimum:  - identification of all applicable loading conditions - Stability of calculation - Stability of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location of resultant with respect to mid third of base - Location and size of drainage system components - Stability of natural in-situ materials and/or slopes affected by construction or during operation.  Calculations shall be provided for the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following, as a minimum: - Mix designs from the following as a minimum: - Mix desig	H03	Structural Calculations	Identification of all ap     Loading, bending mo     Member selection de     Weld load and size n	oplicable load ment and she tails equirements	ng conditions ar force diagrams for all members, bra	cings and connections		
not already outlined in Attached 5s and 5b of this document, shall be provided.  Calculations shall be provided for the following, as a minimum:  Identification of all applicable loading conditions  Structure Stability Calculation  Calculations shall be provided for the following, as a minimum:  Location and size of drainage system components  Stability of constructed fill slopes  Stability of constructed fill slopes  Stability of constructed fill slopes  Stability of natural in-situ materials and/or slopes affected by construction or during operation.  Calculations shall be provided for the following, as a minimum:  Mix designs for slush grout and dental concrete for foundation preparation  Mix design for rollier compacted concrete for each structure, including primary and secondary concrete  Mix design for rollier compacted concrete for each structure.  H40  AC Station Service Load Calculation  Full report and calculation  Full report and calculation  Full report Calculations and drawings.  H51  Relay Setting Calculation  Full report. Calculations and drawings.  H51  Relay Setting Calculation  All wires. All load cases. Stringing sag charts. Calculations for all load cases.  All calculations shall include zoning. Including 3 zones for dc, and 1 zone for ac.	H10	Fire Protection System Calculations				s in accordance with NFPA		
H34 Structure Stability Calculation  Structure Stability Calculation  Structure Stability Calculation  Structure Stability Calculation  Stability Including overturning and sliding Location of resistant with respect to mid third of base Location and size of drainage system components Stability of exonated surfaces (soil and rock) Stability of constructed fill slopes Stability of constructed fill slopes Stability of natural in-situ materials and/or slopes affected by construction or during operation.  Calculations shall be provided for the following, as a minimum: Mix designs for slush grout and dental concrete for foundation preparation Mix designs for conventional concrete for each structure induding primary and secondary concrete Mix design for roller compacted concrete for each structure  Full report and calculation  Full report and calculation  Full report and calculation  Full report and calculation  Full report. Calculations and drawings.  H51 Relay Setting Calculation  Full Report  All wires. All load cases. Stringing sag charts, Calculations for all load cases.  All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H12	Mechanical Calculations - Misc.						
H36 Concrete Mix Calculation  - Mix designs for slush grout and dental concrete for foundation preparation - Mix designs for conventional concrete for each structure, including primary and secondary concrete - Mix design for roller compacted concrete for each structure  H40 AC Station Service Load Calculation  Full report and calculation  H41 DC Station Service Load Calculation  Full report and calculation  Full report. Calculations and drawings.  H51 Relay Setting Calculation  Full Report  H52 Sag and Tension Calculation  All wires. All load cases. Stringing sag charts, Calculations for all load cases.  H54 Design Load Cases  All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	Н34	Structure Stability Calculation	Identification of all ap     Stability, including ov     Location of resultant     Location and size of     Stability of excavated     Stability of constructe	oplicable loadi verturning and with respect to drainage syste I surfaces (soi ed fill slopes	ng conditions sliding o mid third of base em components I and rock)	or during operation.		
H41 DC Station Service Load Calculation Full report and calculation  H42 Primary Grounding Calculation Full report. Calculations and drawings.  H51 Relay Setting Calculation Full Report  H52 Sag and Tension Calculation All wires. All load cases. Stringing sag charts, Calculations for all load cases.  H54 Design Load Cases All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H36	Concrete Mix Calculation	Mix designs for slush     Mix designs for conve	grout and de entional concr	ntal concrete for foundation preparation ete for each structure, including primar			
H42 Primary Grounding Calculation Full report. Calculations and drawings.  H51 Relay Setting Calculation Full Report  H52 Sag and Tension Calculation All wires. All load cases. Stringing sag charts, Calculations for all load cases.  H54 Design Load Cases All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H40	AC Station Service Load Calculation	Full report and calculate	tion				
H51 Relay Setting Calculation Full Report  H52 Sag and Tension Calculation All wires. All load cases. Stringing sag charts, Calculations for all load cases.  H54 Design Load Cases All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H41	DC Station Service Load Calculation	Full report and calculat	tion				
H52 Sag and Tension Calculation All wires. All load cases. Stringing sag charts, Calculations for all load cases.  H54 Design Load Cases All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H42	Primary Grounding Calculation	Full report. Calculation	s and drawing	js.			
H54 Design Load Cases All calculations shall include zoning, Including 3 zones for dc, and 1 zone for ac.	H51	Relay Setting Calculation	Full Report					
	H52	Sag and Tension Calculation	All wires. All load cases. Stringing sag charts, Calculations for all load cases.					
H65 Current Transformer Design Calculations As per technical specification including knee point calculations	H54	Design Load Cases	All calculations shall in	clude zoning,	Including 3 zones for dc, and 1 zone for	or ac.		
	H65	Current Transformer Design Calculations	As per technical specifi	ication includi	ng knee point calculations			



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H99	Miscellaneous Calculations Documents	As described in the procurement documents and on SDRL or considered necessary by Contractor.						
J	J - PERFORMANCE DATA				K Daniel San Har			
J02	Current and Potential (CT/VT) Transformer Curves	Graph showing current transformer magnetization characteristics.						
J06	Performance Guarantee	As per technical specification and as follows:  Performance guarantees shall be provided for all supplied equipment, ensuring environmental sustainability and safety, with specified performance requirements. Guarantee information to be provided shall include, but is not limited to, the following:  • Expected life of equipment/components  • Terms of warranty  • Rated capacity and efficiency  • Minimum hours of operation without failure/defects (e.g. oil leakage, surface cracking, insulation failure, wear rate, etc.)  • Acceptable Operation limits (e.g. Operating temperature range, coolant and/or lubricant requirements, vibration limits, operating voltage, etc.)						
J10	Soil Graduation Analyses	Standard particle size	Standard particle size distribution in table and graph formats.					
J12	List of Environmental Emission and Effluent	As per Environmental Requirements.						
J99	Miscellaneous Performance Data Documents	As described in the procurement documents and on SDRL or considered necessary by Contractor.						
К	K - PROCEDURES							
K07	Factory and Site Test Procedures (FAT/SAT)	Description of system test procedures for control systems, safety, trip/shutdown systems, electrical and telecommunication systems with typical test record documents.  Factory test procedures are to be produced for use in tests to be conducted at the Supplier's or Sub-Supplier's works for each system. There shall also be an integrated test procedure to test all interfaces and connectivity, i.e an overall test with all systems fully assembled and interconnected in the factory (including central equipment an a representative number of field equipment's). These tests shall demonstrate complete compliance to the Project Specification within the Purchase Order or Sub-Contract.  Contractor shall provide all specifications, procedures and forms required for Mechanical completion and Site Commissioning of all Systems Equipments.						
K10	Manufacturing/Fabrication Procedure	Procedure explaining methods used to produce the required item(s) stated in the purchase order as detailed by the specification and/or data sheets.						
K11	Cable Wiring Procedure	Supplier to supply his	o supply his standard for approval.					
K12	Commissioning Procedures	installation works com Mechanical Completion termination's and equintegrity of Supplier in	ioning Procedures shall comprise a Mechanical Completion Procedure to verify the integrity of n works completed by others and Commissioning Procedures, all conducted by the Supplier. all Completion Procedures shall be produced which verify the mechanical completion for cables, cable on's and equipment and systems physically installed by others. The procedure shall also certify the of Supplier installed cables and termination's prior to the application of power. Commissioning es shall be produced in accordance with the Project Specification within the Purchase Order or Sub-					
K16	Instructions for Transportation, Storage, Warehousing and Long term Storage	Provide Full Instruction	Provide Full Instructions for transportation, storage, preservation, warehousing and long term storage.					
K22	Routine Test Procedure	Provide a full list of routine tests, which will be carried out during manufacture, as well as the actual procedures and the test equipment that will be used.						
K23	Sample Test Procedure	Provide a full list of sample tests, which will be carried out during manufacture, as well as the actual procedures and the test equipment that will be used.						
K24	Construction Method Statements and Procedures	Includes all necessar shall also be included	icludes all necessary construction method statements and procedures. Site installation and erection procedure nall also be included.					
K99-1	Miscellaneous Procedures Documents	as described in the pr	escribed in the procurement documents and on SDRL or considered necessary by Contractor.					



entry, Manufacturer, Manufacturers part no, number of parts in operation, price and delivery st  List shall indicate those tools necessary for removing equipment from transport at site, plus the installation and maintenance equipment. Against each entry, a brief description shall be Indicated to the Endowment of Control of Contr	onal drawings and y shall be indicated anal drawings and will be purchased its in operation, Against each				
Preservation Procedures Documents  Preservation procedures for all equipment and systems. Also, as described in the procurement SDRL or considered necessary by Contractor.  L L-MAINTENANCE & SPARES  Lo2  Recommended Commissioning and Start-up Spares  Lust shall indicate parts recommended by Supplier, and be defined by reference to cross-section relevant parts list. Against each entry, Manufacturers part no, price end deliver with main equipment, and shall assume that recommended commissioning spares with manufacturers. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommended by	onal drawings and y shall be indicated anal drawings and will be purchased tts in operation, . Against each				
L L-MAINTENANCE & SPARES  Los Recommended Commissioning and Start-up Spares Lust shall indicate parts recommended by Supplier, and be defined by reference to cross-sective relevant parts list. Against each entry, Manufacturer, Manufacturers part no, price and deliver some and deliver parts list. Recommended to Supplier and be defined by reference to cross-sective relevant parts list. Recommended by Supplier and be defined by reference to cross-sective relevant parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts in commended to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts list. Recommended by Supplier and be defined by reference to cross-section parts in commended by Supplier and be defined by reference to cross-section parts in commended to commended by Supplier and be defined by reference to cross-section parts in commended by Supplier and be defined by reference to cross-section parts in commended to commended by Supplier and be defined by reference to cross-section parts and delivery shall be indicated by supplier and be defined by reference to cross-section parts and delivery shall be indicated by Supplier and by Supplier and be defined by reference to cross-section parts and delivery shall be indicated parts and section shall secure that the secure that the secure that the secure t	onal drawings and y shall be indicated and drawings and will be purchased tts in operation,				
Recommended Commissioning and Start-up Spares  List shall indicate parts recommended by Supplier, and be defined by reference to cross-section relevant parts list. Against each entry, Manufacturer, Manufacturers part no, price and deliver use and the start parts list. Against each entry, Manufacturers part no, price and deliver shall be indicated.  Recommended 12 and 24 Months Operation Spares  Loa Recommended Critical Spares (Insurance)  Essential Spares that have a long delivery time and/or require testing with the main equipment entry, Manufacturers part no, number of particularity, Manufacturers and delivery shall be indicated.  Los Special Tools List  List shall indicate those tools necessary for removing equipment from transport at site, plus the installation and maintenance equipment. Against each entry, a brief description shall be indicated in the procurement documents and on SDRL or considered necessary by Contra Material Test Certificates  Mol Material Test Certificates  Material Test Certification. The level of certification, traceability and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  Mol Instrument/Electrical Test Report  Heat run, short circuit, etc. test reports  Certification issued by an approved testing establishment or recognized authority for hydrocard pool, for the durations stated in the Purchase Order.  Mil Painting/Coating Test Report  As required by the Project Painting and Ceating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability or contractions.	y shall be indicated  nal drawings and vill be purchased tts in operation,				
relevant parts list. Against each entry, Manufacturer, Manufacturers part no, price and deliver  Los Recommended 12 and 24 Months Operation Spares  Los Recommended 12 and 24 Months Operation Spares  Los Recommended 12 and 24 Months Operation Spares  Los Recommended 13 and 24 Months Operation Spares  Los Recommended Critical Spares (Insurance)  Los Recommended Critical Spares (Insurance)  Los Special Tools List  List shall indicate parts recommended by Supplier and be defined by reference to cross-section relevant parts list. Recommendation shall assume that recommended commissioning spares with main equipment and delivery shall be indicated.  Los Recommended Critical Spares (Insurance)  Los Special Tools List  List shall indicate those tools necessary for removing equipment from transport at site, plus the installation and maintenance equipment. Against each entry, a brief description shall be indicated the procurement documents and on SDRL or considered necessary by Contral Material Test Certificates  Material Test Certification. The level of certification, tracesbility and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  Mos Instrument/Electrical Test Report  Heat run, short circuit, etc. test reports  Certification Issued by an approved testing establishment or recognized authority for hydrocart pool, for the duradons stated in the Purchase Order.  Mito Painting/Coating Test Report  As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	y shall be indicated  nal drawings and vill be purchased tts in operation,  Against each				
relevant parts list. Recommended 12 and 24 Months Operation Spares  relevant parts list. Recommended commissioning spares with main equipment. Against each entry, Manufacturer, Manufacturers part no, number of painting and delivery shall be indicated.  Los Recommended Critical Spares (Insurance)  Essential Spares that have a long delivery time and/or require testing with the main equipment rentry, Manufacturers part no, number of parts in operation, price and delivery states that have a long delivery time and/or require testing with the main equipment rentry, Manufacturer, Manufacturers part no, number of parts in operation, price and delivery states that have a long delivery time and/or require testing with the main equipment rentry, Manufacturer, Manufacturers part no, number of parts in operation, price and delivery states that have a long delivery time and/or require testing with the main equipment rentry, Manufacturers part no, number of parts in operation, price and delivery states and	vill be purchased its in operation, Against each				
entry, Manufacturer, Manufacturers part no, number of parts in operation, price and delivery st  List shall indicate those tools necessary for removing equipment from transport at site, plus the installation and maintenance equipment. Against each entry, a brief description shall be indicated to see the procurement documents and on SDRL or considered necessary by Contra  M M - TEST & INSPECTION REPORTS  Material Test Certificates  Material Test Certification. The level of certification, traceability and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  M02 Instrument/Electrical Test Report  Heat run, short circuit, etc. test reports  M09 Fire Testing Certificates  Certification issued by an approved testing establishment or recognized authority for hydrocart pool, for the durations stated in the Purchase Order.  M10 Inspection Release Certificate  Fully endorsed certificate issued by Purchaser's inspector.  M10 Painting/Coating Test Report  As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross					
Installation and maintenance equipment. Against each entry, a brief description shall be indicated necessary for clarity, a drawing provided.  L99 Miscellaneous Maintenance & Spares Documents  As described in the procurement documents and on SDRL or considered necessary by Contrated No. 1 Material Test No. 2 Material Test Certificates  Mo2 Instrument/Electrical Test Report  Mo3 Fire Testing Certificates  Certification  Certification issued by an approved testing establishment or recognized authority for hydrocard pool, for the durations stated in the Purchase Order.  Mo4 Painting/Coating Test Report  As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	Essential Spares that have a long delivery time and/or require testing with the main equipment. Against each entry, Manufacturer, Manufacturers part no, number of parts in operation, price and delivery shall be indicated.				
Mo1 Material Test Certificates Material Test Certification. The level of certification, traceability and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  Mo2 Instrument/Electrical Test Report Heat run, short circuit, etc. test reports  Mo9 Fire Testing Certificates Certificates Certification issued by an approved testing establishment or recognized authority for hydrocard pool, for the durations stated in the Purchase Order.  Mo10 Inspection Release Certificate Fully endorsed certificate issued by Purchaser's inspector.  Mo20 Material Test Certification. The level of certification, traceability and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  Mo21 Mo21 Mo21 Mo22 Mo22 Mo22 Mo22 Mo22	List shall indicate those tools necessary for removing equipment from transport at site, plus those necessary for installation and maintenance equipment. Against each entry, a brief description shall be indicated plus, where necessary for clarity, a drawing provided.				
Material Test Certificates  Material Test Certification. The level of certification, traceability and marking of materials will be Purchase order referenced specifications, drawings and data sheets.  Mo2 Instrument/Electrical Test Report  Heat run, short circuit, etc. test reports  Certification issued by an approved testing establishment or recognized authority for hydrocard pool, for the durations stated in the Purchase Order.  M10 Inspection Release Certificate  Fully endorsed certificate issued by Purchaser's inspector.  M16 Painting/Coating Test Report  As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	As described in the procurement documents and on SDRL or considered necessary by Contractor,				
Purchase order referenced specifications, drawings and data sheets.  M02 Instrument/Electrical Test Report Heat run, short circuit, etc. test reports  M09 Fire Testing Certificates Certification issued by an approved testing establishment or recognized authority for hydrocart pool, for the durations stated in the Purchase Order.  M10 Inspection Release Certificate Fully endorsed certificate issued by Purchaser's inspector.  M16 Painting/Coating Test Report As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross					
M09 Fire Testing Certificates Certification issued by an approved testing establishment or recognized authority for hydrocard pool, for the durations stated in the Purchase Order.  M10 Inspection Release Certificate Fully endorsed certificate issued by Purchaser's inspector.  M16 Painting/Coating Test Report As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	e defined within th				
pool, for the durations stated in the Purchase Order.  M10 Inspection Release Certificate Fully endorsed certificate issued by Purchaser's inspector.  M16 Painting/Coating Test Report As required by the Project Painting and Coating Standards.  M17 Steel Manufacturing Reports Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	Heat run, short circuit, etc. test reports				
M16 Painting/Coating Test Report As required by the Project Painting and Coating Standards.  Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross	Certification issued by an approved testing establishment or recognized authority for hydrocarbon fires, jet or pool, for the durations stated in the Purchase Order.				
M17 Steel Manufacturing Reports Residual magnetism report, heat treatment report, mechanical test reports, full traceability cros	Fully endorsed certificate issued by Purchaser's inspector.				
	As required by the Project Painting and Coating Standards.				
	Residual magnetism report, heat treatment report, mechanical test reports, full traceability cross-reference control sheet.				
M19 Factory and Site Test Report (FAT/SAT) Full test report for each test as per K07.	Full test report for each test as per K07.				
M20 Commissioning Report Full test report for each test as per K12.	Full test report for each test as per K12.				
Proof of design and type tests previously performed on the material shall be submitted for appr certificates and reports for the following equipment are required to be submitted:  Circuit Breakers  Disconnect Switches  Instrument Transformers  Surge Arresters  MY Switchgear  Post Insulators	Circuit Breakers Disconnect Switches Instrument Transformers Surge Arresters MV Switchgear				
M25 Reports and Certificates for Routine Tests Provide Routine test reports with certificates.					
M26 Reports for Sample Tests Provide sample test reports					
M27 Mechanical Completion Report Provide as per K12.	1500				
M28 Certificate of Origin  A document required from the Exporter (or its agent) and certified by an issuing body, that the particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured or processed in a particular export shipment have been wholly produced, manufactured by a particular export shipment have been wholly produced, manufactured by a particular export shipment have been wholly produced have been whol					
M29 Preservation Records Preservation records that shows compliance to storage requirements	lar country. The				



Lower	Supplier Document Requirements List Descriptions (SDRL Descriptions) ac SUBSTATIONS			Revision	Page		
Churchill Project	Nalcor Doc. No.:LCP-SN-CD-4000-EL-LS-0004-01		B4	Date			
	SLI Doc, No.: 505573-4000-40EL-0010			07-Oct-2013			
M99	Miscellaneous Test & Inspection Reports	As described in the procurement documents and on SDRL or considered necessary by Contractor.					
Q	Q - QUALITY						
Q01	Quality Assurance System Registration Certificate	Certificate provided by an authorized registrar confirming conformance to a quality management system.					
Q02	Quality Assurance System Manual	Document specifying the quality management system of an organization.					
Q03	Quality Plan	Document specifying which procedures and associated resources shall be applied by whom and when to a specific project, product, process or contract.					
Q04	Inspection and Test Plan(s) (Factory and Site works)	Document defining the inspection and test activities to be carried out during the realization of a product.					
Q05	Certificates of Conformity (Factory and Site Works)	Certificates authorized by the supplied or third party verification body attesting that the product meets requirements.					
Q07	Internal/External Audit Schedule	Documented audit schedule for both internal and external (supplier and third party) audits.					
Q08	Management Review of Meeting Minutes	Minutes of meeting of the most recent management review of the quality management system.					
Q09	Third Party Surveillance Report	Report by an authorized third party on the audit of the ISO 9001:2008 quality management system.					
Q10	NCR Register and associated close out reports	Register of Nonconformities reported and associated close out reports.					
Q11	Quality Management Certificate for Manufacturer	Supplier shall submit their manufacturer's ISO 9001:2008 or internationally recognized Quality Management Certificate or quality manual.					
Q12	Declaration of Installation and Inspection Completion	As per Quality requirements.					
Q13	Authorized Deviations	Site queries, concession requests etc. as approved by Purchaser.					
Q99	Miscellaneous Quality Documents	As described in the procurement documents and on SDRL or considered necessary by Contractor.					
R	R - MANUALS						
R01	Installation, Commissioning, Operating and Maintenance Manual	1. Installation Section shall include all erection/assembly drawings, instructions as to the use of special tools provided, tolerances allowed on setting dimensions, handling and unpacking instructions. Also includes quantities of preservatives and fluids required for shipment.  2. Commissioning Sectional shall include list of spare parts, special tools and utilities required, pre-commissioning checks to be performed, sequenced procedure for dynamic commissioning and start-up and fault finding guidelines. Copies of all relevant drawings shall be included.  3. Operating Section shall include description of equipment, operating procedures for start-up, steady state, shutdown, emergency and fault conditions, operating parameters, function of protective devices and controls, copies of all relevant cause and effect charts and block diagrams, and fault finding guidelines.  4. Maintenance Section shall include instructions for maintenance disassembly, repair/overhaul and reassemble, schedule of preventative maintenance/maintenance frequencies.					
R05	Dispatch Dossier	Dispatch Dossier shall mean all those documents required, as a minimum to accompany goods released to site from Contractors/Suppliers and Fabricators. Procured goods shall not be dispatched without Dispatch Dossier.					
R99-1	Miscellaneous Manuals	Engineering, Procurement and Construction Record Book (EPCRB)					
R99-2	Miscellaneous Manuals	Site preservation man	rvation manuals. Also, as described in the procurement documents and on SDRL or considered by Contractor.				



Lower	Supplier Document Requirements List (SDRL) ac SUBSTATIONS		Revision	Page
Churchill Project	Nalcor Doc. No.: LCP-SN-CD-4000-EL-LS-0004-01	B4	Date	
	SLI Doc. No.: 505573-4000-40EL-0010	03	07-Oct-2013	-2-28

### Legend

#### **DEFINITIONS / LEGEND**

#### Column 1

- SDRL Code

#### Column 2

Type of Document / SDRL Title

#### Column 3

Provide with proposal (X)= Populated with "X" indicating if the document is required for the initial bidding process.

1E = One Electronic Copy (\*)

<u>Column 4 / 5 / 6 / 7</u> Submit Prior to start of fabrication / Construction : After Shipment ; With Shipment : and or Minimum documents approved code 1 prior to Inspection release

Column 8 As built populated with "X" where required.

<u>Colum 9</u> Final Document location code (R01 / R02 / R05 / R99) = Populated with R01, R02, R05 or R99 as required indicating if the document is required in a manual (s).

Column 10 Final file format = Editable native files as required : SLI to define file format : Example DWG, PDF, Word, Excel...

PE = .pdf format

**NE= Native Electronic Format** 

#### Column 11 / 12

Submission Requirements Include: a number refers to the number of weeks the Supplier / Contractor has to submit the document after receipt of order

ARO = After Receipt of Order

Monthly = Submissions required on a monthly basis





