Client:	**Egyptian Electricity Transmission Company ("EETC")**
Project:	**Nexus Water-Food-Energy (NWFE) Grid Reinforcement Project**
Procurement Process:	**Construction of New 500 KV Cairo Substation**
	Addendum No.1 to Procurement Document

The Procurement Document shall be amended as described below:

1. Section II, Data Sheet, Paragraph 1.3
Section V, Forms, Letter of Tender, Covenant of Integrity, Checklist for Submission of Proposal, Form of Tender Security, as well as throughout the text of the Procurement Document shall be amended as follows:

Original Text	Amendment
The identification number of the Procurement Process is: **"ECEPP ID:30063822."**	The identification number of the Procurement Process is: **"ECEPP ID:36056336"**

2. Section IV, Eligibility and Qualification Criteria shall be amended as follows:

No.	Original Text	Amendment
	Table 3: Experience	
2.1.	**Criterion 3.1. General Experience**	
	The original text of the criterion:	shall be amended as follows:
	"A Participant shall demonstrate experience as a contractor **(in any role)** in the execution of: ● a minimum of **three contracts** for construction or reconstruction of substations of **similar** or higher rating (voltage and capacity) and complexity that have been commissioned and successfully operated at least within the last 3 years, each with a total value of works implemented by the Participant of at least **65,000,000 euro** equivalent, or ● less than the above number of similar contracts with the stated minimum value, but the contracts with total value equal or more than **180,000,000 euro equivalent** that have been commissioned and successfully operated at least within the last 3 years."	"A Participant shall demonstrate experience as a contractor (in any role) in the execution of: ● a minimum of **two (2) contracts** for construction or reconstruction of substations of **500 KV** or higher rating and complexity that have been commissioned and successfully operated at least within 3 years, each with a total value of works implemented by the Participant of at least **46,000,000 euro** equivalent.
2.2	**Criterion 3.2. Management Experience**	
	"Experience as a main contractor or a lead partner in a JVCA in the execution of at least **three (3)** contracts for construction of substations of similar	"Experience as a main contractor or a lead partner in a JVCA in the execution of at least **two (2)** contracts for construction of substations of similar

No.	Original Text	Amendment
	or higher rating (voltage and capacity) and complexity, each with a value of at least **50,000,000 euro**, that have been successfully completed and operated at least within the last 3 years at **3** different locations, including one of these locations outside the country of the contractor. ”	**(500 KV)** or higher rating and complexity, each with a value of at least **46,000,000 euro**, that have been successfully completed and operated at least within 3 years at **2** different locations.”
	“Period: from 2015 to 2023 inclusive” *	“Period: from 2015 to 2024 inclusive” *
2.3	**Criterion 3.3. Specific Experience**	
	“If the Participant is a manufacturer or supplier of the offered model(s) of equipment – successful experience in supply and installation of the offered or similar models of equipment that have been successfully operated under the above or other similar contracts at least within the last 3 years at **3** different locations, including one of these locations **outside the country of origin of the manufacturer**.”	“If the Participant is a manufacturer or supplier of the offered model(s) of equipment – successful experience in supply and installation of the offered or similar models of equipment that have been successfully operated under the above or other similar contracts at least within 3 years at **2** different locations.”
	Table 6: Subcontractors [8]	**Table 6: Subcontractors** [8]
2.4	**Criterion 6.1. Subcontractors’ Qualification**	
	“A Participant shall demonstrate that a Subcontractor and Subsupplier have, as appropriate: (a) successful experience either: i. in performance of works or provision of services of a nature, magnitude and complexity similar to the proposed for subcontracting, for construction of substations of identical or higher rating (rated voltage & capacity) which have been put into commercial continuous operation successfully for at least three years on three projects **at three different locations; one of these locations should be outside the Subcontractor’s country of origin in similar networ**k; or	“A Participant shall demonstrate that a Subcontractor and Subsupplier have, as appropriate: (a) successful experience either: i. in performance of works or provision of services of a nature, magnitude and complexity similar to the proposed for subcontracting, for construction of substations, which have been put into commercial continuous operation successfully for at least three years on at least **two projects in different locations;** or
	ii. in supply and/or installation of the offered or similar models of equipment under the successfully completed similar projects and working successfully for three years in three different locations one of them outside the manufacturer’s country. “	ii. in supply and/or installation of the offered or similar models of equipment under the successfully completed similar projects and working successfully **for three years in different locations**.”
2.5	Footnote [8]: “This information shall be provided for each Subcontractor, as per the requirements of Section III, Evaluation methodology.” … “Experience of the suppliers of key items of equipment may also be reviewed.“	Footnote [8]: “According to requirements of Section III, “Evaluation methodology.” Sub-Section B, Paragraph 2.6, Subcontractors, this information shall be provided for each Subcontractor: “proposed by the Participant for implementation of works and provision of services in excess of ten (10) percent of the estimated contract value of works and services (excluding supplies) and for

No.	Original Text	Amendment
		the specific critical works and/or services under the Contract."… "Experience of the suppliers of key items of equipment may also be reviewed."

* Amended wording is related to both criteria, Management Experience and Specific experience.

3. Section VI: Requirements. Specifications. Cairo 500 – New 500/220/11 KV GIS Substation shall be amended as follows:

No.	Original Text	Amendment
	Section 1. General Technical Specifications and Conditions	
	The original text:	shall be amended as follows:
3.1	Item 1.3.1.5: Outdoor equipment for each 11kVZig-zag Transformer contains but is not limited to:	
	"1 - **Two (2)** single phase current transformer."	"1 **- One (1)** single phase current transformer."
	Section 2. **(S-7) Technical Specifications Schedule**	
3.2	Item 7. Voltage Transformer. Sub-item 7.3. Rated Primary Voltage.	
	"**22**/√**3**"	**11**/√**3**"
3.3	Sub-item 7.4. Number of Secondary Cores (Fe , Tr , B.B)	
	"4/**4/3"**	"4/**3**/**4**"

4 Section V: Forms shall be amended as follows:

4.1. Price Schedules

No.	Original Text	Amendment
	Schedule of Quantities and Prices No.1	
	The original text of the subitem:	shall be amended as follows:
4.1.1	**B/G 300 500. Two (2) 11KV Zig-zag Transformer contain:** - Subitem B/G 300/501	
	"Single phase current transformer" "Q-ty **4**"	"Single phase current transformer" "Q-ty **2**"
4.1.2	**B/G 300 600. Three (3) 750MVA auto transformer 500KV neutral point equipment contain:** - Subitem B/G 300/601	
	"Single phase current transformer to be installed on the neutral of each phase." "Q-ty **3**"	"Single phase current transformer to be installed on the phases neutral" "Q-ty **9**"

4.2 Technical Data Schedules shall be amended as follows:

4.2.1 Technical Data Schedules (G-Schedules), Part 1, Schedules G-14b-A and G-14b-B Auxiliary Transformers shall be replaced by the amended Schedules G-14b-A and G-14b-B provided in Attachment 1 to this Addendum.

4.2.2 Technical Data Schedules (G-Schedules) provided in Attachment 2 to this Addendum shall be added to the Technical Data Schedules of the Section V:Forms.

4.3 The Technical Documentation Forms provided in Attachment 3 to this Addendum shall be included in the Section V: Forms. The Technical Documentation Forms should be completed by the Participants as appropriate and submitted as part of their tenders.

All other provisions of the Procurement Document shall remain unchanged.

Attachments:

- Attachment 1. Amended Technical Data Schedules (G-14b-A) and (G-14b-B) Auxiliary Transformers
- Attachment 2. Additional Technical Data Schedules (G-Schedules):
- Attachment 3. Technical Documentation Forms
- Attachment 4. Amended pages of the Specifications and Price Schedules (see separate file)

Attachment 1
To Addendum No.1 to Procurement Document

Amended Technical Data Schedules

(SCHEDULE (G – 14b-A

Auxiliary Transformers

ITEM	Description	Unit	EETC's Requirements	1 MVA
A.	**Manufacturer Data:**			
1.	Standard and relevant publication.			
2.	Name of manufacturer.			
3.	**Place of manufacture:**			
3.1.	- Country.			
3.2.	- City.			
4.	Type reference.			
B.	**Technical Particulars:**			
1.	Vector group.		Dyn11	
2.	Rated voltage ratio at no-load, principal tapping.	**kV/kV**	11/0.4	
3.	Rated power.	**MVA**	1	
4.	**Rated primary current at:**	**A**		
	- Extreme plus tapping.		**50**	
	- Principal tapping.		**52.5**	
	- Extreme minus tapping.		**55.2**	
5	Rated secondary current at main tapping based on: - Full load voltage. - No load voltage.	**A**	**1519.34** **1443.4**	
6	**Current density at short ct (J) at principal tapping:**	**A/mm²**		
	* Primary.		2.5≥	
	* Secondary.		2.5≥	
7.	**Rated primary voltage at no-load:**	**kV**		
	- Extreme plus tapping.		11.55	
	- Principal tapping.		11	
	- Extreme minus tapping.		10.45	
8.	Flux density at rated voltage and main tapping.	**Tesla**	1.6≥	
9	Rated secondary voltage at no-load.	kV	0.4	
10	Rated voltage ratio at full-load, PF 0.8 and principal tapping.	kV/kV	11/0.38	
11	Rated output with natural cooling:	MVA	1	
12	**- Permissible duration of over load without exceeding the specified temperature rise, at extreme minus tapping:**			
12.1	**- 10% overload starting from:**	hr.		

ITEM	Description	Unit	EETC's Requirements	1 MVA
12.1.1	• $^4/_4$ full load.		≥2	
13	- Primary to secondary impedance voltage at rated current and 95°C.	%	5	
14	Zero sequence impedance per phase (primary/ secondary).	Ω		
15	**Load Losses at 95°C, full load (ONAN), & principal tapping:**	**kW**		
	- Primary to secondary.			
16	- No-load losses.	**kW**		
17.	**Lightning impulse withstand voltage:**	**kV p**		
	• Primary windings.		75	
	• Secondary windings.		8	
	• Secondary neutral.		8	
18.	**Power frequency withstands voltage (test voltage):**	**kV rms**		
	• Primary windings.		28	
	• Secondary windings.		3	
	• Secondary neutral.		3	
19.	**Induced voltage and its frequency:**	**kV/Hz**		
	• Primary windings.		2U HZ	
	• Secondary windings.		2U HZ	
	• Secondary neutral.		"	
20.	**Dielectric dissipation factor (tan δ):**			
	• **For oil:**	**%**		
	• At 90 °C.		0.5	
	• At 20 °C.	**%**	0.1	
	For winding at 20 °C		0.5	
21	**Temperature Rise:**	**° C**		
	- Max temperature rise over ambient temperature and continuous full-load with maximum current (extreme minus tapping) in addition to 10% over-load with maximum current for two hours, starting from full-load (losses at 95 °C).			
	• Windings.		50	
	• Oil at top.		45	
	• Hot spot.		60	
22	**Short circuit withstands current:**			
	• Primary thermal current and duration.	**kA/ sec**	*I_{SC}/2 sec.*	
	• Primary dynamic current and duration.	**kA sec**	*2.5Iao'500msec.*	
23.	Noise level.	**dB**	*<57*	
24.	**Construction:**			
24.1	**- Core and Yoke:**			
24.1.1	• Name of manufacturer.			
24.1.2	• Place of manufacture.			
24.1.3	• Material.		*Cold rolled grain oriented silicon sheet steel*	

ITEM	Description	Unit	EETC's Requirements	1 MVA
24.1.5	• Nominal thickness of Lamination.	**mm**	*<0.27*	
24.2	- **Winding**:			
	• Name of manufacturer.			
	• Place of manufacture.			
	• Material of conductor.		Copper	
24.3.	**-Oil**:			
24.3.1	• Name of producer.			
24.3.2	Place of production.			
24.3.3	Type.		Mineral Oil	
24.3.4	**Breaking strength.**	kV/2.5mm gap		
	- At factory testing.		≤ 66	
	- At site after purifying.		≥70	
	- Lowest operation value.		< 40	
24.3.5	- Density.	g/ cm^3	0.895	
25.1	**Tank.**			
25.1.1	- Material of tank.			
25.1.2	**- Thickness of tank:**	mm		
	● Sides.			
	● Cover.			
	● Bottom.			

Signed:_____ on behalf of _____ [*insert Participant's name*]

(SCHEDULE (G – 14b -B

Auxiliary Transformers

ITEM	Description	Unit	1 MVA
	Technical Data		
1.	**Current density at principal tapping:**	**A/mm²**	
1.1	**- At short circuit (J).**		
	* Primary.		
	* Secondary.		
2	**Voltage drop with load at full load between primary & secondary.**	**%**	
	- Unity PF.		
	- 0.8 PF.		
3	No load current.	%	
4	**- Permissible duration of over load without exceeding the specified temperature rise, at extreme minus tapping :**		
4.1	**- 10% overload starting from:**	**hr.**	
4.1.1	¾ full load.		
4.1.2	2/4 full load.		
4.1.3	• ¼ full load.	min.	
4.2	- 25% overload starting from:	**min.**	
4.2.1	● 4/4 full load.		
4.2.2	● ¾ full load.		
4.2.3	● 2/4 full load.		
4.2.4	● ¼ full load.		
4.3	- 50% overload starting from:	**min.**	
4.3.1	● 4/4 full load.		
4.3.2	● ¾ full load.		
4.3.3	● 2/4 full load.		
4.3.4	● ¼ full load.		
4.4.	- 75% overload starting from:	**min.**	
4.4.1	● 4/4 full load.		
4.4.2	● ¾ full load.		
4.4.3	● 2/4 full load.		
4.4.4	● ¼ full load.		
4.5.	**- 100% overload starting from:**	**min.**	
4.5.1	4/4 full load.		
4.5.2	¾ full load.		
4.5.3	2/4 full load.		
4.5.4	¼ full load.		
5	**Resistance per phase at 95ºC:**	**Ω**	
	● Primary winding.		
	● Secondary winding.		
6	**Efficiency at:**	**%**	
	● 125% full-load at 0.8/ unity PF.		
	● 100% full-load at 0.8/ unity PF.		
	● 75% full-load at 0.8/ unity PF.		

ITEM	Description	Unit	1 MVA
	● 50% full-load at 0.8/ unity PF.		
	● 25% full-load at 0.8/ unity PF.		
7	**Temperature Rise:**	^{o} C	
	- Max temperature rise over ambient temperature and continuous full-load with maximum current (extreme minus tapping) in addition to 10% over-load with maximum current for two hours, starting from full-load (losses at 95 ^{o}C).		
	● Iron core.		
	● Oil (average).		
8	**Construction:**		
8.1	**- Core and Yoke:**		
8.1.1	● Name of manufacturer.		
8.1.2	● Place of manufacture.		
8.1.4	● Kind insulation film.		
8.1.6	● Density.	g/ cm^3	
8.1.7	● Magnetic flux density.	Tesla	
8.1.8	● Specified iron loss at the magnetic flux density	W/ kg	
8.1.9	● Space factor.		
8.2	**- Winding:**		
8.2.1	● Name of manufacturer.		
8.2.2	● Place of manufacture.		
8.2.3	● **Material of insulation:**		
	- Primary winding.		
	- Secondary winding.		
8.2.4	● **Weight of each winding.**	kg	
	- Primary winding.		
	- Secondary winding.		
8.2.5	● **Cross section of each winding.**	mm^2	
	- Primary winding.		
	- Secondary winding.		
8.3	**- Number of turns per phase:**		
	● Primary.		
	● Secondary.		
8.4	**- Weights and dimensions:**		
	● Weight of core.	kg	
	● Weight of windings.	kg	
	● Weight of oil.	kg	
	● Weight of transformer ready for shipping without oil.	kg	
	● Weight of transformer ready for operation.	kg	
	● Dimensions of transformer ready for shipping.	m	
	● Dimensions of transformer ready for operation.	m	
9	**Thermal Characteristics.**		

ITEM	Description	Unit	1 MVA
9.1	- Oil exponent (x).		
9.2.	- Winding exponent (y).		
9.3.	- Loss ratio (R).		
9.4.	- Hot-spot factor (H).		
9.5.	- Oil time constant (t).	H	
9.6.	- Hot-spot temperature for unity (normal) thermal ageing.	^{o}C	
9.7	- Hot spot to top-oil gradient.	^{o}C	

Signed:_____ on behalf of _____ [*insert Participant's name*]

Attachment 2
To Addendum No.1 to Procurement Document

Additional Technical Data Schedules

SCHEDULE G - 9 B-1

Disconnectors and Earthing Switches FOR (Neutral points)				
Nominal Voltage - kV		**Unit**	**EETC Requirement**	**offered**
			N.P for Zigzag TR.	**N.P for Zigzag TR.**
Description			**11 KV**	**11 KV**
1	Standard and relevant publication			
2	Name of Manufacturer			
3	Place of Manufacturer			
3.1.	- Country			
3.2.	- City			
4	Type reference			
5	Number of poles		1	
6	Rated voltage	kV	12	
7	Rated insulation level	kV		
7.1.	-Power frequency voltage			
7.1.1.	To earth between poles, and across open switching device		28	
7.1.2.	Across the isolating distance		32	
7.2.	- Lightning impulse voltage			
7.2.1.	To earth, between poles, and across open switching device		75	
7.2.2.	Across isolating distance		85	
8	Rated normal current (for disconnectors only)	A	630	

9	Rated short time withstand current	kA	31.5	
10	Rated peak withstand Current	kA_{peak}	78.75	
11	Rated short Circuit making current (for fault making earthing Switch)	kA_{peak}		
12	Mass of complete disconnector	kg		
13	Mass of earthing switch	kg		
14	Minimum clearances in air	mm		
14.1.	- Between poles			
14.2.	- Between live part To earth			
14.3.	- Isolating distance			
14.4.	- Safety accessible distance			
15	Type of insulator and its material			
16	Number of insulator units per pole			
17	Greatest diameter of insulator	mm		
18	Minimum creepage distance (outdoor/inside cubical)	mm	385/220	
18.1	Minimum creepage distance (in enclosure)	mm	220	
19	Protected leakage path	mm		
20	Length of contact zone	mm		
21	Blades, material			
22	Contacts, material			
23	Terminals, material			
24	Current density	A/mm^2		
24.1.	- In contacts			
24.2.	- In blades			
25	Current at 45 ^oC ambient to give temperature rise of 25 ^oC	A		
26	Min. power frequency flash-over voltage of the Switch with fittings	kV		

26.1.	- Dry clean			
26.2.	- Dry polluted			
26.3.	-Wet clean			
26.4.	-Wet polluted			
27	Power frequency withstand voltage of the Switch fittings	kV		
27.1.	- Dry clean			
27.2.	-Dry polluted			
27.3.	- Wet clean			
27.4.	- Wet polluted			
28	50% of 1.2/50U Sec impluse (+ve) wave flash-over voltage of the switch with fittings under polluted conditions	kV		
29	Max. Lightning impluse (+ ve) wave of Switch complete with fittings under polluted conditions	kV		
30	Corona voltage under polluted conditions (Max/min.)	kV		
31	Longitudinal breaking load	kg		
32	Max. longitudinal working load, normally	kg		
33	Torsional breaking torque	kg.m		
34	Max. torsional working torque, normally at short circuit	kg.m		
35	Electro-mechanical type test load	kg		
36	Factor of Safety based on electro-mechanical type test load (not less than 2.5)			
37	Motor Operating Mechanism of a disconnector, or earthing switches and associated equipment		AC or DC Motor	
37.1.	Type of mechanism & mode of operation		Local (Manual - Motorized)	

37.1.1	For disconnector switch			
37.1.2	For earthing Switch			
37.1.2	Type of Motor Operating Mechanism			
37.2.	- Rated Supply voltage	V		
37.2.1	For disconnector switch			
37.2.2	For earthing switch			
37.3.	- Rated current	A		
37.3.1	* For disconnector switch			
37.3.2	For earthing Switch			
37.4.	- Power Consumption	W		
37.4.1	For disconnector Switch			
37.4.2	For earthing Switch			
37.5.	- Auxiliary Contract			
37.5.1	For disconnector Switch			
37.5.2	Used N.O./N.C.			
37.5.3	Free (Spare) N.O./N.C.			
37.5.4	For earthing Switch			
37.5.5	Used N.O./N.C.			
37.5.6	Free (Spare) N.O/N.C.			
38	Weight of disconnector Switch Complete with fittings	kg		
39	Weight of earthing Switch Complete with fittings	kg		

SCHEDULE G – 10 B-1

Current Transformer FOR (Neutral points)

			EETC requirements	offered
	Nominal Voltage - kV Description	Unit	N.P for Zigzag TR. 11 KV	N.P for Zigzag TR. 11 KV
1	Standard and relevant publication			
2	Name of manufacturer			
3	Place of manufacture			
3.1.	- Country			
3.2.	- City			
4	Type Reference			
5	Number of poles per circuit			
6	Construction (post , bushing ,ring, etc)			
7	Winding / terminal , material			
7.1.	- Primary		High Conductivity copper or copper alloy	
7.2.	- Secondary			
8	Winding Insulation material			
9	Filling insulation			
10	Envelope insulation		Porcelain for outdoor porcelain/ polymer inside cubical	
11	Minimum creepage distance(outdoor)	mm	385	
11.1	Minimum creepage distance(in enclosure)	mm	220	
12	Rated primary current	A	400-800	
13	Rated Secondary current	A	1	

14	Rated continuous thermal current	A		
15	Rated short-time thermal current	kA	31.5	
16	Rated dynamic current	kA	78.75	
17	Rated transformation ratio			
18	Maximum temperature rise	°C		
19	Rated insulation level	kV		
19.1.	- Lightning impluse		125	
19.2.	- Power frequency		50	
20	Earthing factor			
21	Insulation class			
22	Dielectric dissipation factor (tan ∂)	%	≤ 0.5	
23	Partial discharge	PC	≤ 50 at 1.2 Um & ≤ 20 at 1.2 Um/√3	
24	Power frequency test voltage	kV		
24.1.	- between - Section insulation			
24.2.	- Secondary Winding		3	
24.3.	- Interturn		4.5	
25	Measuring Cores (N.A)			
25.1.	- Number of Cores			
25.2	- Rated burden of each core	VA		
25.3.	- Rated out put of each core	VA		
25.4.	- Accuracy class of each core			
25.5.	- Ratio error	%		
25.6.	- Phase displacement			
25.7.	- Instrument Security factor (FS)			
25.8.	- Rated instrument limit primary current (IP)	A		

25.9.	- Secondary limiting e.m.f.	V		
25.10.	- Exciting current	A		
26	Protective Cores:			
26.1.	- Number of cores		2	
26.2.	- Rated burden of core one	VA	15	
26.3.	- Rated burden of core two	VA	15	
26.4.	- Rated output of core 1	VA		
26.5.	- Rated output of core 2	VA		
26.6.	Accuracy class of each core		5P20	
26.7.	Rated accuracy limit primary current	A		
26.8.	Accuracy limit factor			
26.9.	Secondary limiting emf.	V		
26.10.	Exciting current	A		

SCHEDULE G - 12 B

Surge Arrester (Conventional) FOR (Neutral points)

Description	Nominal Voltage - kV	Unit	EETC Requirement	offered
			40 MVA	40 MVA
			N.P for Zigzag TR.	N.P for Zigzag TR.
			11 KV	11 KV
1	Standard and relevant publication			
2	Name of manufacture			
3	Place of manufacture			
3.1.	- Country			
3.2.	- City			
4	Type reference			
5	Rated voltage		9	
6	Continuous operating voltage	kV	7.2	
7	Nominal discharge current	kA	10	
8	Residual voltage at nominal discharge current			
8.1.	- Steep	kV	23.4:36	
8.2.	- Lightning	kV	20.7:32.4	
8.3.	- Switching	kV	18:26.1	
9	Protection level	kV		
9.1	- Lightning impulse	kV	125	
9.2	- Switching impuse	kV		
10	Insulation impulse withstand voltage (1.2/50μ Sec)	kV		
11	Impulse spark over crest voltage	kV		

12	Discharge crest voltage (8/20 µ Sec) at	kV		
12.1	- 5 kA max.			
12.2	- 10 kA max.			
12.3	- 20 kA max.			
12.4	- 40 kA max.			
13	High short duration discharge crest current	kA		
14	Long duration discharge current (duration u Sec)	kA		
15	Surge current	A	1000	
16	Duty cycle crest current(8/20u Sec)	kA		
17	Peak follow current	A		
18	Continuous current	mA		
19	Reference current	mA		
20	Reference voltage	kV		
21	Short- circuit capability (pressure relief current)	kA	31.5	
22	Length and shape of creepage distance of arrester housing	mm		
23	Withstand voltage of insulating container (Complete with grading ring)			
23.1	- 1 min. wet test, power frequency	kV	50	
23.2	- 1 min. dry test power frequency	kV		
23.3	- Lightning impulse			
23.4	- Switching impulse			
24	Maximum permissible length of lead	mm		
24.1	- Between surge counter and lead			
24.2	- Between surge counter and arrester			

25	Minimum energy discharge capability (single-shot)			
25.1	- KJ/kV phase rated voltage		≥ 2.5	
25.2	- KJ/kV phase continuous operating voltage			
26	Total weight of one complete unit	kg		
27	Over all dimensions	mm		
27.1	- Height			
27.2	- Width			
28	Max. Voltage to Earth under System Fault Condition Based on Um/√3	P.U.	1.7	
29	Duration of Max. Earth Fault	Sec.	3	
30	Max. Value of Temporary Over Voltage	P.U.	1.8	
31	Duration of Max. Temporary Over Voltage	Sec.	0.5	
32	Max. Prospective Switching Over Voltage at Arrester Location based on Um / √3 .	P.U.	2.5	
33	Max. Partial Discharge at 1.05 U_c	PC	< 10	
34	Max. Partial Discharge Level at continuous operating voltage at 1.05 (U_c)	PC	≤ 10	
35	Envelope material		Porcelain for outdoor porcelain / polymer inside cubic	
36	Min. Specific Leakage Path	mm/kV	45	

SCHEDULE G – 14-b -1

Neutral Earthing Resistor for 11KV

Description		Unit	EETC requirement	offer
			N.P for Zigzag TR.	N.P for Zigzag TR.
1	Standard and relevant publication			
2	Name of manufacturer			
3	Place of manufacture			
3.1.	- Country			
3.2.	- City			
4	Type		Grid Type	
5	Resistance	Ω	10	
6	Fault Current	A	650	
7	Fault Duration	sec	30	

Attachment 3
To Addendum No.1 to Procurement Document

TECHNICAL DOCUMENTATION FORMS

Form TEC-1: Technical Proposal

To: Egyptian Electricity Transmission Company

Participant's Name: *[Insert the Participant's legal name]*

[JVCA Partners' Names: *[Insert the legal names of JVCA partners, if applicable]*

Contract: **Construction of New 500 KV Cairo Substation**

Dear Sir or Madam,

Herewith we submit our Technical Proposal, which consist of the following documentation:

Annex 1:	Base Programme
Annex 2:	the Plant (equipment) and Materials
Annex 3:	Manufacturers' Authorisations for Major Items of Plant (Equipment)
Annex 4:	Proposed Concept Design
Annex 5:	Quality Assurance Plan for the Contract
Annex 6:	Environmental, Social, Health and Safety (ESHS) Plan;
Annex 7:	Proposed Training Services
Annex 8:	List of proposed subcontractors (Form SUB-1);
Annex 9:	Proposed Contractor's Equipment (Forms EQP-1 and EQP-2)

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Annex 1

Base Programme

Participants shall provide general description of the arrangements, as well as respective method statements, which they intend to adopt for the execution of the Works.

They shall demonstrate the order in which they intend to carry out the Works, including the anticipated timing of each stage and required resources, procurement, manufacture of Plant, delivery to Site, erection and testing. The Base Programme shall include sequence and timing of inspections and tests, and cover reporting obligations, as well as the documents to be provided by the Contractor.

The Participant's arrangements for the execution of works and method statements should demonstrate their adequacy for satisfactory execution of the Works in conformity with the Contract. Method statements shall provide a general description of the methods and of the major stages in the execution of the Works.
The Participants shall demonstrate the reasonable estimate of
the number of each class of personnel and of each type of their equipment, required on the Site for each major stage.
The site organisation, mobilisation and demobilisation (including personnel and equipment) arrangements shall be described in sufficient details.
The Base Programme shall also include other information as the Participant deems relevant or appropriate.

Base Programme

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

Dear Sir or Madam,

Herewith we submit our Base Programme, which consist of the following parts:

1. Work Programme;
2. Method Statement;
3. Mobilisation and Site Organisation; and
4. Inspections and Tests.

We acknowledge that the Base Programme and any information provided therein may be subject to adjustment in accordance with the Contract.

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

1. Work Programme

Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[Participants shall enclose the initial Work Programme in the Gantt Chart form demonstrating the order in which the Contractor intends to carry out the Works, indicating the anticipated timing of each stage, including:

- *Contractor's Documents,*
- *procurement of Plant (equipment) and Materials, including placement of orders,*
- *manufacture of Plant (equipment),*
- *logistics, delivery to Site,*
- *construction, erection,*
- *inspections and testing,*
- *commissioning.*

The Gantt Chart Shall be prepared in months starting from the Contract Commencement date.

Events and time periods shown in the Gantt Chart should correspond with the information provided in other sections of the Base Programme and in other Annexes of the Technical Proposal. Gantt Chart should be in line with the timeline indicated by the Participant in Technical Data Schedule (G-1), Readiness for Testing, Delivery and Completion, Attachment 1 to Annex 2. Respective references may be made, as necessary.

Any works required shutdown periods, should be mentioned on the work program with its early start and late start, early finished and late finished.

Requirements of Section 1 of the Technical Specifications (Sub-section 1.5, General Program, paragraphs 1.5.1 -1.5.3) should be followed.

The Work Programme shall demonstrate the ability of the Participant to complete the Works till the required Time for Completion.

The Participant shall attach explanatory notes, where necessary.]

2. Method Statement

Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[Participants shall provide a description of the method statement that the Participants intend to adopt for the execution of the Works. The Participant's method statement should demonstrate their adequacy for satisfactory execution of the Works in line with the Programme conformity with the Contract.

Participants shall provide a summary of method statement(s) in sufficient detail for the Client to assess the Participant's understanding of the scope of the Works and their proposed approach to executing the Works.]

3. Mobilisation and Site Organisation

Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

3.1 Mobilisation

[Participants shall provide information and schedule showing the order in which the Participant intends to arrange mobilisation of the Contractor's personnel and Contractor's Equipment, including:

- *planned sources (countries of origin, etc.),*
- *visa arrangements for the personnel, if necessary,*
- *customs arrangements for the Contractor's Equipment, where applicable.]*

3.2 Site Organisation

[Participants shall provide drawings and a summary of the location of camps, workshops, fabrication areas (if applicable), spoil disposal areas, and other relevant site information.]

3.3 Demobilisation

[The Participant shall provide information and/or schedule showing the order in which the Participant intends to arrange demobilisation of the Contractor's personnel and Contractor's Equipment, including customs arrangements, where applicable.]

4. Inspections and Tests

Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[Participants shall provide a list of the inspections and tests to be carried out by the Contractor during the execution of the Works and upon completion and take over, their description and timing.

The Participant should demonstrate his understanding and compliance to requirements of Sections 10 A, B and C of the Technical Specifications.

Please also indicate inspections and tests for which the participant proposes to invite representatives of the Client.]

4.1 Inspections

[The Participants should describe proposed approach at least to the following inspections to be carried out by the Contractor:

- *Site Inspection after the Contract signing*
- *Inspection of the equipment, including:*
  - *Factory inspection of the major items of equipment, if applicable*
  - *pre-shipment inspections*
  - *inspection after delivery*
  - *Site inspections*
- *In-process inspection (Field inspection) of construction and installation of the equipment.*
- *Final inspection and commissioning.]*

4.2 Plant (equipment) Tests

[With regards to the offered Plant (equipment) the Participants should be based on the requirements of the Technical Specifications for inspections and testing]

4.3 Site Tests

[The Participants should describe the proposed approach to the Site tests during and after construction, at commissioning of the substation Cairo 500.

The requirements of the Technical Specifications and the Conditions of Contract related to the tests should be taken into consideration and followed. The proposed deviations, should be clearly justified.]

4.4 Other Inspections and Tests

[The Participants should describe the proposed approach to other inspections and tests specified in the Technical Specifications and demonstrate their compliance with the requirements.]

Annex 2

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

Plant (equipment) and Materials

[The Participant shall provide information and supporting documents with respect to the offered items of Plant (equipment) and Materials and demonstrate that they are applicable for construction and operation of the Substation Cairo 500 and comply with the Requirements.

Brief description of the systems and their components comprising the substation Cairo 500 shall be provided.

The Participant shall complete the Technical Data Schedules (G-Schedules) provided as separate files (see Attachment 1 to Annex 2 in ECEPP). Please demonstrate conformity of the offered items of equipment to the Requirements and provide guarantees, where required.]

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

[Attachments:

1. *Technical Data Schedules (G-Schedules) (Attachment 1, Part 1 and Part 2) completed by the participants for all items of the offered Plant (equipment),*
2. *Guaranteed Value of Transformer Losses (Attachment 2)*
3. *Standard manufacturers' specifications for the offered items of equipment,*
4. *Printed materials, containing description, specifications, photos, drawings of the offered models of Plant (equipment),*
5. *User's and operations manuals for major items of equipment,*
6. *Test certificates for the equipment:*
   - *similarity shall be according to IEC 60076 – 5. The certificates of type, routine, special test and internal arc without burn through that were carried out in international neutral laboratory for (500 kV & 220 kV) switchgear.*

- *The certificates of type, routine, special test which have been carried out within the last ten (10) years on transformer identical to the offered ones.*

  The certificates of type and routine test that carried out in international neutral laboratory for other equipment.

- *Short circuit calculations and short circuit test certificate from an approved international laboratory for a similar transformer with the same factory from which the offered transformers shall be supplied. The similarity shall be according to IEC 60076 – 5.*
- *Type test reports/certificates performed at Certified Independent International Laboratory (not more than 10 years passed) and its certificates for similar type for the offered Optical Fiber Buried Cable and its accessories.*
- *Type test reports/certificates issued by certified international independent laboratories (not more than 10 years passed) for the offered telecommunication equipment.*
- *Other test records and certificates requested in the Technical Specifications.*

In the absence of test certificates for not more than two items, a letter of guarantee from the participant confirming their submission prior to the contract signing in case of the contract award.

7. *Sections of manufacturers' maintenance catalogues for major items of equipment.*
8. *Other documents requested by the Technical Specifications and listed in Attachment 1 to Specifications: List of Documents to be Submitted with Tender*

   (please list attached documents)]

Attachment 1. to Annex 2.

Participant's Name: *[Insert the Participant's legal name]*

[JVCA Partners' Names: *[Insert the legal names of JVCA partners, if applicable]*

Contract: Construction of Substation Extension 500 kV

Pages: from___ to____

TECHNICAL DATA SCHEDULES

TABLE OF CONTENTS

[*G-Schedules are provided in separate files in 2 parts*)

Schedule No.	Description
G – 10 B	Inductive Voltage Transformer (Conventional) 11 kV
G – 10 B-1	Current Transformer FOR (Neutral points)
G – 11 A	Surge Arresters (Conventional) for 500,220 &11kV
G – 11 B	Surge Arresters (Conventional) for (Neutral points)
G – 11 C	Earthing Transformer
G – 12	Quality of steel and cast iron used for steel structure and other purpose
G-12 B	Surge Arrester (Conventional) FOR (Neutral points)
G – 13	Medium voltage switchgear
G – 14-A	Power transformer, bushing and OLTC for 750 MVA
G – 14a-A- i	Power transformer, bushing and OLTC for 750 MVA
G – 14a-A-ii	Bushings for 750 MVA Transformer
G – 14a-A-iii	On-Load Tap-Changer
G – 14a-B	Auxiliary Transformers 750 MVA 500/220/11 kV
G – 14b-A	Auxiliary Transformers 0.5 MVA
G – 14b-B	Auxiliary Transformers
G – 14b-1	Neutral Earthing Resistor for 11KV
G – 15-A	Fire fighting system
G – 15-B	Fire Alarm system
G – 15-C	Fire fighting for outdoor transformers

Schedule No.	Description
	Part 2.
G – 16	Protective Relays 500, 220 kV
G – 17	Protective Relays for 11 KV
G – 18	Measuring Instruments
G – 19	Energy Meters
G – 20	Low Voltage Switchgear
G – 21	Substation Automation System (SAS)
G – 22-A	220 DC Batteries Supply
G – 22-B	48 VDC Battery
G – 23-A	220 VDC Charging Rectifier Set
G – 23-B	48 VDC Battery Chargers
G – 24	Low Voltage AC/ DC & Control Cables

Schedule No.	Description
G – 25-A	Line Trap 500KV
G – 25-B	Line Trap 220KV
G – 26	Coaxial cables
G – 27	Telephone Sets
G – 28A	High voltage Cables.
G – 28B	Medium Voltage Cables
G – 29A-1	Termination “SF6 Type” for 1x1600 mm^2 . 220 KV
G – 29A-2	Termination "Porcelain Type". Outdoor Type for 1 X 1600 mm^2
G – 29B	Cable Sealing Ends

Attachment 2
to Annex 2. Plant (equipment) and Materials

Guaranteed Value of Transformer Losses

for 3 (750 MVA) Transformers

[This Guarantee should be issued on a letterhead paper of the Participant or Manufacturer of the transformers]

To: **Egyptian Electricity Transmission Company ("EETC")**

New Administrative Capital
Government District, Cairo,
Arab Republic of Egypt

Procurement Process No: 30063822.
Contract: Construction of New 500 KV Cairo Substation

Guaranteed Value of 500/220 KV Transformer Losses

For 3 (750 MVA) Transformers

Participant _____
Transformer model: _____, Voltage _____ Manufacturer: _____

We, the undersigned, hereby declare and guarantee that if the contract awarded to us, the value of the transformer losses will be will not exceed the following:

Parameter	Number of phases	Guaranteed losses per transformer (kW)	Total Guaranteed losses
	(a)	(b)	c = (a x b)
No load losses in kW at normal voltage and main tapping.	10		
Load losses in kW at full load principal tapping and reference temperature 95^0 C *	9		
Fans consumption in kW at transformers full load and specified overload, rated voltage, and extreme minus tapping.	9		
		TOTAL	

* in case the offered reference temperature (θ^0 C) is lower than 95^0 C, the load losses shall be multiplied by:
235 + 95/ 235 + θ.

We acknowledge that in case during the factory tests or other tests on the offered models of transformers the actual value of losses exceeds the above guaranteed value of losses, we will pay penalties according to provisions of contract GCC 7.5 *[Rejection]*.

If the actual value of losses exceeds the allowable tolerance set established by IEC 60076 – 5 or if the excess in the fans consumption is higher than the guaranteed by 15%, which will lead to rejection of

the offered model of transformer according to GCC 7.5 [Rejection], we guarantee that we will repair or replace the transformer by the new one with better quality and lower losses at our own expense.

Signed**:** _____
Name: [*insert complete name of authorised representative of the Participant or Manufacturer of* the Transformer]
Title: [*insert title*]
Duly authorised to sign on behalf of: [*insert complete name of the Participant or Manufacturer of* the Transformer]
Dated on ____ *insert date of signing*]

Attachments:

1. The certificates of type, routine, special test which have been carried out within the last ten (10) years on Transformer identical to the offered ones.

2. Short circuit calculations and short circuit test certificate from an approved international laboratory for a similar Transformer with the same factory from which the offered transformers shall be supplied.

The similarity shall be according to IEC 60076 – 5. The certificates of type and routine test that carried out in international neutral laboratory for other equipment.

Annex 3

Manufacturers' Authorisations for Major Items of Plant (Equipment)

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[The Participant shall submit with its proposal an appropriate authorisation by the manufacturers of equipment, confirming the arrangements agreed with the Participant to supply such items of equipment, and use them where appropriate, to form the Works, under the Contract, i.e. for installation into the Substation Cairo 500.

Manufacturer's Authorisations shall be provided at least for the following equipment:

- *500KV GIS equipment*
- *220KV GIS equipment*
- *750 MVA Transformer*
- *Control & Protection equipment*
- *Telecommunication equipment*
- *Cable and its accessories.*

The Manufacturer's Authorisation shall be prepared on stationery of the manufacturer with its letterhead clearly showing the manufacturer company's name and address. Separate Manufacturer's Authorisation forms shall be obtained from each manufacturer.

The form is not required, if a Participant is the manufacturer of the equipment.

The Manufacturer's Authorisations prepared according to the form provided in Attachment 1 below shall be attached to this Annex 3.]

Equipment type	Model	Manufacturer

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Attachments:

1. *Manufacturer's Authorisations from the following manufacturers of equipment: (please list them) ...]*

Attachment 1 to Annex 3

[All text within square brackets [ ] is for use in preparing this form and shall be deleted from the final document.]

Manufacturer's Authorisation

Date**:** *[insert the date]*

To: **Egyptian Electricity Transmission Company**

Dear Sir or Madam,

Contract: Construction of New 500 KV Cairo Substation

Being duly authorised to represent and act on behalf of [*insert the Manufacturer company's name*], we, the undersigned, declare that:

(a) we [*insert the name of the manufacturer*], who are official manufacturers of [*insert type of equipment manufactured*], having factories at [*insert the address of the manufacturer's factories*], do hereby authorise [*insert the name of the Participant*] to submit a proposal, which provide for supplying and installing the following equipment [*insert name and model of the offered equipment*], manufactured by us and using it to form the Works and subsequently negotiate and sign the contract named above,

(b) we confirm that the above model of equipment is applicable for installation in the Substation Cairo 500 kV considering climatic and environmental conditions of the Site, and

(c) we hereby extend our full guarantee and warranty with respect to the above model of equipment offered by the Participant.

Yours sincerely,

Signed by: _____
[*insert signature(s) of authorised representative(s) of the Manufacturer*]

Name: _____
[*insert complete name(s) of authorised representative(s) of the Manufacturer*]

Position**:** _____
[*insert title*]

For and on behalf of: _____
[*insert complete name of Manufacturer*]

Annex 4

Proposed Concept Design

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[The Participants shall provide:

1. *Proposed concept design with respective details, calculations and drawings according to requirements of the Specifications, Section 13, Civil Works.*
2. *Proposed layouts showing the offered components of the substation and their dimensions].*

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Attachments:

[*…drawings and other documents requested by the Section 13 of the Technical Specifications. Please list them.]*

Annex 5

Quality Assurance Plan for the Contract

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[Participants shall provide the description of the proposed quality assurance plan for construction of the Substation Cairo 500 and respective procedures to be followed during implementation of the Contract.

In addition, the Participants have to demonstrate that they, their contractors and subcontractors responsible for performance of works under the Contract as well as manufacturers of major items of equipment to be installed under in the Substation Cairo 500 have adequate Quality Assurance Systems and possess ISO or equivalent QA certificates, or at least internal documents (e.g. order, memorandum) evidencing introduction of a QA systems and their descriptions.

In particular:

- *ISO 9001 Certificates - for manufacturers of the transformer, tap changer, bushings, windings and core steel*
- *...]*

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Attachments:

[ISO certificates and/or other quality assurance certificates for the offered major items of equipment and for performance of works]

Annex 6

Environmental, Social, Health and Safety (ESHS) Plan

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

ESHS Management Plans

[The Participant shall submit comprehensive Environmental, Social, Health and Safety as well as Labour Management Plans. These plans shall describe in detail the actions, equipment, management processes etc. that will be implemented by the Contractor, and imposed on Subcontractors.

Management of ESHS risks and impacts shall be undertaken in accordance with the Contract and the Laws, and to a standard no less stringent than comparable international industry standards; as outlined in Section VI, Requirements.

At all times the Contractor shall ensure the conformity with the requirements outlined in the EBRD Environmental and Social Policy.]

A. Construction Environmental and Social Management Plan (C-ESMP)

[The Construction Environmental and Social Management Plans (C-ESMP) shall identify all environmental and social issues specific and relevant to the works and shall provide information explaining how they will be managed. The C-ESMP shall include details of the environmental and social management system, including the plans to manage and monitor environmental and social impacts associated with all construction work carried out by the Contractor and its Subcontractors.

As a minimum the C-ESMP shall cover the following areas, risks and issues:

- *Environmental and social policy/statement;*
- *Response to the legal framework and the Requirements;*
- *Environmental and social organisation chart, including roles and responsibilities;*
- *Monitoring, reporting, inspections, audits, incidents and non-conformities;*
- *Management process description, as well as any changes thereof;*
- *Pollution prevention and control (including hazardous materials, noise and vibration, air pollution, effluent management and surface run-off, as appropriate);*
- *Emergency preparedness and response;*
- *Waste management;*

- *Ecological management;*
- *Cultural heritage management*
- *Land management and reinstatement, including topsoil management and infrastructure and service management;*
- *Stakeholder engagement;*
- *Spoil disposal;*
- *Construction camp (layout and management plan);*
- *Interaction with local communities.]*

B. Health and Safety

[As a minimum the Occupational and Community Health and Safety Plan (OCHSP) shall cover the following areas, risks and issues:

• Health and safety policy/statement;

• Response to the legal and the Requirements;

• Health and safety organisational chart, including roles and responsibilities;

• Information and training;

• Communication;

• Monitoring, inspections, audits, and non-conformities;

• Accident and incident investigation and reporting;

• Description of the management process and management of change process;

• Arrangements for controlling significant risks associated with the work including, but not limited to:

- *Working at heights;*
- *Lifting operations;*
- *Traffic management – inside and outside the Site;*
- *Ground disturbance and excavations;*
- *Working with and around live electrical conductors;*
- *Security management, including interaction with local communities;*
- *Workers accommodation;*
- *Emergency arrangements and emergency response;*
- *First aid.]*

C. Labour Management

[Participants shall provide a Labour Management Plan (LMP), which outlines the methods to management and monitoring labour and working conditions, including workforce welfare and employee relations. It shall include a recruitment plan outlining how the recruitment process for the cases, where large scale recruitment of new personnel is required.

As a minimum the LMP will cover the following areas, risks and issues:

- *A named manager with defined responsibility for labour issues, including those in relation to subcontractors and labour agencies;*

- *A human resources policy;*
- *An equal opportunities policy/statement, including equal remuneration for men and women for work of equal value, as well as prohibition of sexual harassment, exploitation or abuse, gender based violence;*
- *Procedures for enhancing staff skills, including regular, documented training with clear objectives;*
- *Communication with trade unions or, in their absence, other workers' representatives;*
- *A confidential worker grievance and dispute resolution process;*
- *Policies in respect of the recruitment and treatment of migrant workers, if any, including prohibiting employer and subcontractors retention of worker identity documents;*
- *Performance review for labour issues in co-operation with other stakeholders.]*

D. Environmental and Social Action Plan (ESAP)

[The Participant shall list all ESAP measures in response to Section VI, Requirements, and Section VII, Contract Terms and Conditions.]

E. ESHS Resources

[The Participant shall list Health and Safety, Environment and Social Managers, Advisors, Officers, or Supervisors, as well as Stakeholder Relations Managers and Community Liaison Officers and provide the brief description of the resources and logistic arrangements to enable their work.]

F. ESHS and Labour Reporting

[The Participant shall describe reporting procedure for all incidents, non-conformities and noncompliances in respect of the C-ESMP, OCHSP and LMP.

This shall describe the mechanism, frequency, timing and lines of reporting for all incidents, non-conformities and non-compliances.]

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Annex 7

Proposed Training Services

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[The Participants should describe the proposed training programs for the Employer's engineers and technicians to enable them to maintain, repair, assembly, dismantling, overhauling, adjusting, testing, etc. of the plant as requested by the Technical Specifications, Section 1, sub-section 1.4.

The training programs should be prepared for:

A. *On-shore Training and*
B. Off-shore Training.

Each training programme should at least provide information related to:

- main subjects to be covered by training

- planned theoretical and practical training sessions, their approximate number

- handouts and training materials,

- qualification and experience of the trainers,

- language of training sessions and training materials (Arabic or with translation into Arabic),

- tests, exams, certificates, authorisations (if applicable), etc.]

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

Annex 8

Form SUB-1: List of Proposed Subcontractors

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

[The Participant should provide information about subcontractors proposed for performance of works and provision of services, as well as for suppliers of major items of equipment and materials (other than manufacturers' of the equipment listed in Annex 3) for construction of the Substation Cairo 500 under the Contract (as per Section III, Subsection B. Eligibility and Qualification Requirements, paragraph 2.6: Subcontractors) and Section IV, Table 6: Subcontractors.]

We propose to engage the following Subcontractors [1] for the execution of the Contract:

PROPOSED SUBCONTRACTORS FOR WORKS AND SERVICES	
Subcontractor **Name and Address**	**Scope of Engagement** (Description of Services/Works, expected share of the contract value excluding supplies)

Attachments:

[Letters of intent or agreements between the Participant and each subcontractor, describing the assigned scope of works or services and signed by their authorised officers.]

[1] The information on the qualification of the Subcontractors listed in the table above should be provided using Forms SUB-2, SUB-3 and SUB-4 (see subsection Eligibility and Qualification Documentation) in line with the requirements listed in Table 6, Section IV, Eligibility and Qualification Criteria.

We propose to engage the following Suppliers [2] for the execution of the Contract:

PROPOSED SUPPLIERS	
Supplier **Name and Address**	**Equipment and materials to be supplied**

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

[2] The information on the qualification of the Suppliers listed in the above table should be provided using Form SUB-3: Subcontractor's Experience (see subsection Eligibility and Qualification Documentation) in line with the requirements listed in Criterion 6.1 (a) (ii), Table 6, Section IV, Eligibility and Qualification Criteria.

Annex 9

Form EQP-1: Proposed Contractor's Equipment[3]

To:	Egyptian Electricity Transmission Company
Participant's Name:	*[Insert the Participant's legal name]*
[JVCA Partners' Names:	*[Insert the legal names of JVCA partners, if applicable]*
Contract:	**Construction of New 500 KV Cairo Substation**
Pages:	from___ to____

In order to execute the Contract we propose to use the following key items of Contractor's equipment[4] for construction of the Substation Cairo 500 in accordance with our Base Program:

Contractor's Equipment			
No.	**Equipment Type, Model and Manufacturer**	**Key Technical Parameters**	**Number**
1.			
2			

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	

[3] The Participant shall provide adequate information to demonstrate that it has an access to the equipment necessary to perform the Contract in accordance with the Base Program to ensure timely execution of the Contract.

[4] A separate form shall be provided for each item of equipment listed, using Qualification Form EQP-2 to demonstrate that the Participant owns, or has assured access to (through hire, lease, purchase agreement, availability of manufacturing equipment, or other means) the equipment in full working order, and that the equipment will be available for use under the Contract.

Form EPQ-2: Details of Proposed Contractor's Equipment

To: Egyptian Electricity Transmission Company

Participant's Name: *[Insert the Participant's legal name]*

[JVCA Partners' Names: *[Insert the legal names of JVCA partners, if applicable]*

Contract: **Construction of New 500 KV Cairo Substation**

Pages: from___ to____

[The Participant should complete this form for the key items of Contractor's equipment listed in the Form EQP-1: Proposed Equipment of the Technical Proposal.]

Type of Equipment:		
Equipment Information	Name of manufacturer:	Model and power rating
	Capacity/Key performance parameters:	Year of manufacture
Current Status	Current location:	
	Details of current commitments:	
Access to the Equipment	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ To be manufactured ☐ Other If "Other", please provide brief explanation below:	

[The following information shall be provided only for the equipment not owned by the Participant]:

Owner/Manufacturer	Name of owner:	
	Address of owner:	
	Contact name and title:	
	Telephone:	Email address:
Legal arrangements	Details of rental/lease/ manufacture legal arrangements specific to the Contract:	

Name:	
In the capacity of:	
Signed:	
Duly authorised to sign the proposal for and on behalf of:	
Date:	