# Request for Quotations RFQ-UESP-2022-011

**Activity Title: "Power transformers"** 

Issuance Date: March 9, 2023

Deadline for Receipt of Questions: March 16, 2023 at 8:00 PM Kyiv time

Closing Date and Time: March 30, 2023 at 8:00 PM Kyiv time

Issuance of this RFQ does not constitute an award commitment on the Tetra Tech ES, Inc., nor does it commit to pay for any costs incurred in preparation or submission of comments/suggestions of a quote. Quotes are submitted at the risk of the bidders. All preparation and submission costs are at the bidder's expense.

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### 1. INTRODUCTION

The purpose of this RFQ is to solicit quotations for **Power transformers** as described in Attachment A – Technical Specification for the Energy Security Project (ESP). This project is funded by the U.S. Agency for International Development (USAID) and is implemented by Tetra Tech ES, Inc., a U.S. corporation. Based on the quotations received in response to this RFQ, Tetra Tech intends to make award of a subcontract (Purchase Order) under Tetra Tech's prime contract with USAID.

This is an accelerated procurement to provide critical equipment and/or services to Ukrainian utilities and other entities in the country's power systems. The ability of bidders to deliver the required goods, materials, and/or services rapidly is a critical evaluation criterion. Firms that demonstrate an ability to fulfill the order fully, accurately, rapidly, and completely will be considered for contract award.

# 2. BIDDER'S QUALIFICATIONS

Bidder must provide the following information and references in order to be qualified for the procurement process.

- 1. Company's information, including official registered name, organization's Unique Entity ID number, if proposed total price is more than USD \$30,000, place of registration, type of registration and number, company officer names, business address, website, and physical address, telephone number, and email address of the firm's contact person;
- 2. Proof of company registration. For Ukrainian companies, this means a recent extract from State Registry issued at least 3-5 days prior to the proposal due date that confirms the company's active registration.
- 3. A short description of the company and of past similar experience providing the items described in the Attached A Technical Specification/Detailed Budget;
- 4. Certification that company is not owned or controlled in total or in part by any entity of any government;
- **5.** The Bidder shall complete and sign the Representation and Certifications found in Attachment C to this document and include them with the Bidder's quote. Quotes that do not include these certifications may be disqualified from consideration.
- 6. Bidders listed in the Excluded Parties List System will not be considered. The Excluded Parties List can be found at: https://sam.gov/content/exclusions

# 3. SOURCE AND NATIONALITY RESTRICTIONS

The USAID authorized geographic code for the Energy Security Project is 935. Code 935 consists of any area or country including the cooperating country but excluding prohibited sources, including Russia. Only suppliers from this geographic code will be considered for award. Suppliers from any geographic area outside of Russia and this list of prohibited countries will be considered for award.

# **References:**

- USAID ADS Chapter 310: <a href="https://www.usaid.gov/ads/policy/300/310">https://www.usaid.gov/ads/policy/300/310</a>
- USAID List of Prohibited Source Countries: <a href="https://www.usaid.gov/ads/policy/300/310mac">https://www.usaid.gov/ads/policy/300/310mac</a>

# 4. SUBMISSION OF QUOTATIONS

All quotations are due on March 30, 2023 at 8:00 PM Kyiv time, Ukraine. Quotations must be submitted via e-mail to the address <a href="mailto:UESPprocurement@tetratech.com">UESPprocurement@tetratech.com</a> in the following formats: Adobe Acrobat, Microsoft Word, and/or Excel.

All quotations must fully respond to the Technical Specifications enclosed in Attachment A and must include quotes in Excel in the format provided in Attachment B. Quotations received after the above-stated due date and time will not be considered for this award.

# 5. QUESTIONS AND CLARIFICATIONS

All questions or clarifications regarding this RFQ must be submitted in writing in English and submitted to the email address **UESPprocurement@tetratech.com** by **March 16, 2023 at 8:00 PM Kyiv time**, **Ukraine**. Questions and requests for clarification, and the responses thereto, will be sent to all RFQ recipients.

Only written answers from Tetra Tech are official and carry weight in the RFQ process and subsequent evaluation. Any answers received outside the official channel, whether received verbally or in writing, from employees or representatives of Tetra Tech, or any other party, will not be considered official responses regarding this RFQ.

# 6. QUOTATION PREPARATION INSTRUCTIONS

All Bidders must follow the instructions set forth in order to be qualified for the procurement process. If a Bidder does not follow the instructions set forth, the Bidder's quotations may be eliminated from further consideration.

All quotations must be submitted in English or Ukrainian and signed by a qualified officer of the Bidder's firm.

The outline for the quotation is stated below.

# a. Organization's Information

Organization's information, including official registered name, organization's Unique Entity ID number, if proposed total price is more than USD \$30,000; place of registration, type of registration and number, company officer names, business address, website, and physical address, telephone number, and email address of the firm's contact person;

# b. Company Past Performance

Bidders should provide a summary of the projects/tasks relevant to the technical specification described in Attachment A including the name/title, client, phone number and email address, date and a brief description. The qualifications section is limited to 5 of the most relevant projects/tasks performed in the last 5 years, presented in the following table format. If the client is confidential, simply list "confidential". Tetra Tech will contact references for feedback prior to making an award determination.

Project (title)	(task)	name	Description of the project (task) and services provided	Dates of execution

# c. Detailed Budget

Bidder shall complete the Excel budget template provided in **Attachment B** to allow Tetra Tech to compare all quotes and make a competitive selection. The budget should be provided in Excel format with unlocked cells and formulae. A price must be provided for each project component to be considered compliant with this request. If labor costs are being proposed, daily rates should be fully burdened (i.e. include fringe benefits, applicable indirect charges, and any fee). The price proposal should include the individual line items shown in the template, e.g., fully-burdened daily rates, travel costs, and other direct costs. Offers must show unit prices, quantities, and total price. All items, services, etc. must be clearly labeled and included in the total offered price. The price proposal shall also include a budget narrative that explains the basis for the estimate of every cost element or line item. Supporting information must be provided in sufficient detail to allow for a complete analysis of each cost element or line item. Tetra Tech reserves the right to request additional cost information if the evaluation committee has concerns of the reasonableness, realism, or completeness of an Offeror's proposed price.

Bidder may provide pricing in any currency. However, to be able to compare pricing for evaluation purposes, if pricing is quoted in other than U.S. Dollars (USD), Tetra Tech will use the Oanda exchange rate in effect on the due date for bid submissions: <a href="https://www.oanda.com/currency-converter/en/">https://www.oanda.com/currency-converter/en/</a>.

Prices quoted in this document shall be valid for a 60-day time period, and include all taxes and other costs excluding VAT tax originated in Ukraine.

# d. Representations and Certifications

These documents can be found in **Attachment C** of this RFQ and must be submitted as part of the Quotation.

# 7. EVALUATION CRITERIA

The award will be made to a responsible bidder whose quotation follows the RFQ instructions, meets the eligibility requirements, meets or exceeds the minimum required technical specification/requirements, and represents best value in consideration of the evaluation factors outlined below. Prices must be reasonable and will be considered in the evaluation. Bidders are encouraged to provide a discount to their standard commercial rates.

Tetra Tech reserves the right to conduct discussions with selected bidder(s) in order to identify the best value offer. Award of any resulting Subcontract Agreement shall be made by Tetra Tech on a best value basis. Tetra Tech reserves the right to request a test assessment from bidders to assess their qualifications. Tetra Tech will also contact references for feedback prior to making an award determination.

If any requirements in this RFQ are not met, Tetra Tech reserves the right to disqualify the submission from further consideration.

Technically acceptable bids will be scored on a 100-point scale. Available points for each evaluation factor are given below:

Evaluation Criteria	Points
I. Price, \$	60
II. Delivery time, days	40
TOTAL	100

# PRICE EVALUATION

The lowest qualified bid will receive the maximum score as indicated in the above table.

The other bids will be scored inversely proportional to their price and computed as follows:

Sf = Maximum possible score \* Fm/F

where

Sf = financial Score of the bid evaluated

Fm = price of the lowest priced bid among those qualified

F = price of the bid under consideration

Prices must be fair and reasonable. Bidders are encouraged to provide a discount to their standard commercial rates.

# **DELIVERY TIME EVALUATION**

The Bidder with the shortest delivery time (days) offered for final delivery will receive the maximum score as indicated in the above table.

The other bids will be scored inversely proportional to their offered delivery time and computed as follows:

Df = Maximum possible score \* Dm/D

where

Df = delivery Score of the bid evaluated

Dm = shortest delivery time among those qualified

D = Delivery time of the bid under consideration

In the even that a Bidder has proposed different delivery times by item, Tetra Tech will use a weighted average delivery time for the calculations above. This weighted delivery time will be based on the proposed cost of each item. For example:

Item A: \$500,000, Delivery time: 10 days Item B: \$20,000, Delivery time: 60 days

Weighted average = ((\$500,000\*10 days) + (\$20,000\*60 days))/(\$500,000+\$20,000) = 11.92 days.

Tetra Tech reserves the right to conduct discussions with selected bidder(s) in order to identify the best value offer. Award of any resulting Purchase Order on a fixed-price basis shall be made by Tetra

Tech on a best value basis. Tetra Tech reserves the right to request a test assessment from bidders to assess their qualifications.

## 8. TERMS OF PAYMENT

Payment terms for the awarded Purchase Order on a fixed-price basis shall be net fifteen (15) days after delivery and acceptance and of the items. Payment shall be made by Tetra Tech ES, Inc. via bank wire transfer in the currency used in the bidder's quote.

# 9. DELIVERY TERMS

Three winding power transformer	Number of items to be delivere d	Delivery place
Three winding power transformer 25 MVA, 110/6/6 kV	1	DAP Lviv, Ukraine
Three winding power transformer 25 MVA, 110/27.5/6 kV	1	DAP Lviv, Ukraine
Three winding power transformer 25 MVA, 110/27.5/10 kV	2	DAP Krasne, Zolochivsky district, Lviv region, Ukraine

## **10. UEI NUMBER**

If the proposed price is above \$30,000, the successful bidder will be required to furnish a Unique Entity Identifier (UEI) within 24-48 hours of notice of award. Information regarding obtaining a UEI number may be found here: <a href="https://sam.gov/content/entity-registration">https://sam.gov/content/entity-registration</a>

# 11. NEGOTIATIONS

Best offer quotations are requested. It is anticipated that a Purchase Order will be awarded solely based on the original offers received. However, Tetra Tech reserves the right to conduct discussions, negotiations and request clarifications prior to making an award. Furthermore, Tetra Tech reserves the right to conduct a competitive range and to limit the number of offerors in the competitive range to permit an efficient evaluation environment among the most highly-rated proposals. Highest-rated offerors, as determined by the evaluation committee, may be asked to submit their best prices during a competitive range.

# 12. MULTIPLE AWARD/NO AWARD

Tetra Tech ES, Inc. reserves the right to issue multiple awards. Tetra Tech ES, Inc. also reserves the right to issue no awards.

# 13. TETRA TECH SUBCONTRACT (PURCHASE ORDER) TEMPLATE

The subcontract (Purchase Order) that will be issued to the successful bidder is included in Attachment D. Unless otherwise specified by the bidder, its submission of a bid indicates the bidder's acceptance of all terms and conditions of the subcontract. Please note that any proposed material deviations from the terms and conditions of contract may result in disqualification of the quotation.

# 1. Three winding power transformer 25 MVA, 110/6/6 kV

Силовий трансформатор із трьома обмотками 25 МВА 110/6/6 кВ

Item name	Quantity	Delivery point	Vendor addresses of aftersales support in Ukraine
Three winding power		DAP Lviv, Ukraine	
transformer 25 MVA,	1		
110/6/6 kV			

		Data/3	начення			
	TECHNICAL DATA		Required by	Guaranteed by the		
No	TECHNICAL DATA ТЕХНІЧНІ ПАРАМЕТРИ		the Customer	Supplier		
	TEXHIMITTAPAMETPH		Необхідне	Гарантоване		
		Замовнику	постачаль-ником			
1	Type designation	*				
	Тип					
2		Manufacturer				
	Виробник		0.14			
	Installation (Outdoor, indoor)	Outdoor				
3	Виконання (зовнішньої, внутрішньої установки)	Зовнішньої				
	T (1) (1, /		установки			
4	Type of transformer (single-phase, three-phase)	three-phase				
	тип трансформатора (однофазний, трифазний)	Трифазний				
5	Type of transformer Insulation (oil-filled, dry)	oil-filled				
Э	Тип ізоляції трансформатора (маслонаповнений, с	маслонаповнени й				
		HV BH	25000			
		LV1				
6	Rated capacity of winding, kVA	HH1	12500			
	Номінальна потужність обмотки, кВА	LV2	12500			
		HH2				
7	Rated frequency, Hz		50			
<u> </u>	Номінальна частота, Гц					
		HV BH	110			
	Rated voltage, kV	LV1	6			
8	Номінальна напруга, кВ	HH1				
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LV2	6			
		HH2				
		HV BH	126			
	Maximum operating voltage, kV	LV1 HH1	7,2			
9	Найбільша робоча напруга, кВ					
		LV2 HH2	7,2			

			I	HV BH	115	
	Nominal winding voltage (no-load condition, on main			LV1		
10	tap position), kV	V0500 <b>501</b> 111		HH1	6,3	
	Номінальна напруга обмоток (на холостому ході в нейтральному положенні РПН, ПБЗ), кВ			LV2	6,3	
	в неитральному положений тит,				· ·	
				HV BH	solidly grounded	
	Neutral operating mode (isolated, solidly grounded,			1) /1	глухозаземлена	
11	effectively grounded) Режим роботи нейтралі (ізольова	на		LV1 HH1	isolated Ізольована	
	глухозаземлена, ефективно зазе		f	LV2	isolated	
		,		HH2	Ізольована	
12	Winding connection and group		•		Yn/D/D-11-11	
12	Схема з'єднання обмоток і група					
		Type (OLTC,	-		OLTC	
		Тип (РПН, І	ПБЗ)		РПН	
13	Tap changer HV Регулювання напруги BH	Range Діапазон			±9x1,78%	
	гегулювання напруги втт	Voltage of O	ITC dr	ive V	AC230V (3- ph)	
		Напруга пр			AC230 В (3-ф)	
	Type (OLTC, NLTC)				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
		Тип (РПН, І	ПБ3)		-	
14	Tap changer MV	Range		_		
-	Регулювання напруги СН	Діапазон				
		_	Voltage of OLTC drive, V Напруга приводу РПН		-	
	OLTC control microprocessor-based de					
	supply	evice silali be	iii tiie	scope of	Yes	
15	Мікропроцесорний пристрій упра	вління РПН	в об'є	мі	Так	
	поставки					
	Type of cooling system (ONAN, ONAF,	· · · · · · · · · · · · · · · · · · ·			ONAF	
16	Тип охолодження (природне, обду	ув, примусов	ва цир	окуляція	Обдув	
	масла та повітря, інше) Voltage of fan and oil pump motors, V	,			AC230V (3- ph)	
17	Напруга двигунів вентиляторів і м		в. В		AC230V (3- ph) AC230 B (3-ф)	
	,, , John 1		OLTC		AC230V (3- ph)	
			РПН		АС230 В (3-ф)	
	Voltage of control circuits, V		Coolir	•		
18	Напруга кіл керування, В		syster		AC230V (3- ph)	
			Сист		АС230 (3-ф)	
	у охолод					
	Transformer`s coefficient of performa					
	(PEI shall meet the requirements of the ecodesign level 2)					
19				е менше	99,7	
	(РЕІ має відповідати вимогам рівня 2 трансформаторів)					
	Full Wave Lightning Impulse (LI), kV			HV BH	480	
20	Випробувальна напруга повного і	грозового	f	LV1		
	імпульсу, кВ			HH1	60	

				HH2		
				Neutral HV Нейтра ль ВН	200	
				HV BH	550	
Chopped Wave Lightning Impulse (LIC), kV Випробувальна напруга зрізаного грозового					70	
імпульсу, кВ					70	
				HV BH	200/200	
ort-duration (1 min.) p	oower-frequer	ncy withstand		LV1 HH1	25/25	
роткочасна (однох	вилинна) змі			LV2 HH2	25/25	
пробувальна напру ізами)	/га, кВ (відносно землі/між			Neutral HV Нейтра ль ВН	100	
itching impulse (SI), k	V (only for U≥	:330 kV)		HV BH	-	
		йного імпульсу			-	
HV-L					10,5	
пруга короткого заг		· ·			10,5	
зицігтьо (Етігі), %					6,5	
-load current, % рум холостого ходу	/, %				0.7%	
		Коефіцієнт		tio	400-300-200/5 A	
	Core 1	Accuracy Клас точнос	сті		10P	
embedded CTs	Обмотка 1	Rated accuracy lim (ALT/FS)			20	
удовані ТС з боку І		Burden, VA Навантажен	ння <i>,</i>	BA	20	
	Core 2	Коефіцієнт		tio	-	
		Accuracy			-	
	Rated accu (ALT/FS)		cy lin		-	
	rt-duration (1 min.) раде, kV (ph-ground/роткочасна (однохиробувальна напрузами)  tching impulse (SI), k пробувальна напрузами)  rt-Circuit Voltage on пруга короткого за иції ПБЗ (РПН), %  load current, % рум холостого ходу  embedded CTs	тt-duration (1 min.) power-frequerage, kV (ph-ground/ph-ph) роткочасна (однохвилинна) змі пробувальна напруга, кВ (відновами)  tching impulse (SI), kV (only for U≥пробувальна напруга комутаці тільки для U≥330 kV)  rt-Circuit Voltage on main tap posi пруга короткого замикання на пиції ПБЗ (РПН), %  load current, % рум холостого ходу, %  Соге 1 Обмотка 1	тt-duration (1 min.) power-frequency withstand age, kV (ph-ground/ph-ph) роткочасна (однохвилинна) змінна пробувальна напруга, кВ (відносно землі/мі зами)  tching impulse (SI), kV (only for U≥330 kV) пробувальна напруга комутаційного імпуль (тільки для U≥330 kV)  rt-Circuit Voltage on main tap position, % пруга короткого замикання на нейтральній иції ПБЗ (РПН), %  load current, % рум холостого ходу, %  Core 1 Обмотка 1 Коефіцієнт трансформ Ассигасу Клас точнос (ALT/FS) Гранична ку Вигдеп, VA Навантаже!  Тransformatic Коефіцієнт трансформ Ассигасу Клас точнос (ALT/FS)  Соге 2 Обмотка 2 Клас точнос Rated accura (ALT/FS)	тс-duration (1 min.) power-frequency withstand age, kV (ph-ground/ph-ph) роткочасна (однохвилинна) змінна пробувальна напруга, кВ (відносно землі/між зами)  тссніпд ітриІзе (SI), kV (only for U≥330 kV) пробувальна напруга комутаційного імпульсу, тільки для U≥330 kV)  тс-Circuit Voltage on main tap position, % пруга короткого замикання на нейтральній иції ПБЗ (РПН), %  Ттаnsformation га Коефіцієнт трансформації Ассигасу Клас точності Rated ассигасу Ігп (АLТ/FS)  Гранична кратні Вигdеn, VA Навантаження, Тransformation га Коефіцієнт трансформації Соге 2 Обмотка 2 Клас точності Rated ассигасу Ігп (АLТ/FS)	те-duration (1 min.) power-frequency withstand age, kV (ph-ground/ph-ph) роткочасна (однохвилинна) змінна пробувальна напруга, кВ (відносно землі/між зами) ни нейтральна напруга комутаційного імпульсу, тільки для ∪≥330 kV) нообувальна напруга комутаційного імпульсу, тільки для ∪≥330 kV) нейтра дь вН нейтральній нейтральній пробувальна напруга комутаційного імпульсу, тільки для ∪≥330 kV)  **Te-Circuit Voltage on main tap position, % пруга короткого замикання на нейтральній нейтральній нейтральній нейтральній нейтральній нейтральній нейтральній нейтральній пруга короткого замикання на нейтральній нейтральній нейтральній нейтральній коефіцієнт прансформації нейтрансформації нейтрансформації нейтранична кратність вигден, VA навантаження, в навантаження в	робувальна напруга зрізаного грозового ульсу, кВ

			Burdon VA		
			Burden, VA Навантаження, BA	-	
			Transformation ratio		
			Коефіцієнт	_	
			трансформації	_	
			Accuracy		
		Core 1	Клас точності	-	
		Обмотка 1			
		OUMUTRAI	Rated accuracy limit factor (ALT/FS)		
			Гранична кратність	-	
	MV embedded CTs		Burden, VA		
			Навантаження, ВА	-	
27	Вбудовані ТС з боку СН		Transformation ratio		
	OH		Коефіцієнт		
			трансформації	-	
			Ассигасу		
		Core 2	Клас точності	-	
		Обмотка 2	Rated accuracy limit factor		
		OOMOTKA 2	(ALT/FS)		
			Гранична кратність	-	
			Burden, VA		
			Навантаження, ВА	-	
			Transformation ratio		
			Коефіцієнт	_	
			трансформації	_	
			Accuracy		
		Core 1	Клас точності	-	
		Обмотка 1	Rated accuracy limit factor		
		oomorka 1	(ALT/FS)	_	
			Гранична кратність		
	LV embedded CTs		Burden, VA		
	Вбудовані ТС з боку		Навантаження, ВА	-	
28	НН		Transformation ratio		
			Коефіцієнт	_	
			трансформації		
			Accuracy		
		Core 2	Клас точності	-	
		Обмотка 2	Rated accuracy limit factor		
			(ALT/FS)	-	
			Гранична кратність		
			Burden, VA		
			Навантаження, ВА	-	
			Transformation ratio		
			Коефіцієнт	400-300-200/5 A	
	Neutral embedded CTs		трансформації		
20	Вбудовані ТС в	Core 1	Accuracy	400	
29	нейтралі	Обмотка 1	Клас точності	10P	
	_		Rated accuracy limit factor		
			(ALT/FS)	20	
			Гранична кратність		

			In the Ma		1	
			Burden, VA	٨	20	
	-		Навантаження, В			
			Transformation ratio	)		
			Коефіцієнт		-	
			трансформації			
		Cara 2	Accuracy		-	
		Core 2 Обмотка 2	Клас точності	· fo ot o »		
		OUMOTRA 2	Rated accuracy limit (ALT/FS)	. ractor		
			Гранична кратніс	FL	-	
			Burden, VA	ID		
			Навантаження, В	Δ	-	
			Павантаження, в		Bushings with RIP	
					internal insulation	
				HV BH	високовольтні	
	Transformer connection	_	_		вводи RIP	
	Leads-in, Connection to	-			Bushings	
30	Підключення трансф		•	LV1	високовольтні	
	(високовольтні вводи		води, підключення	HH1	вводи	
	до елегазових струмо	опроводів)			Bushings	
				LV2	високовольтні	
				HH2	вводи	
					Porcelain	
				HV BH	фарфор	
24	External insulation (Porc	celain/ polyme	· · · · · · · · · · · · · · · · · · ·		Porcelain	
31	Зовнішня ізоляція (фа	арфор/поліг			фарфор	
				LV2	Porcelain	
				HH2	фарфор	
				HV BH	25	
	Specific creepage distan	co (phaco ph	aca) mm/k)/	LV1	30	
32		••		HH1	30	
	титома довжина шля	Питома довжина шляху витоку (фаза-с			30	
				HH2	30	
	Painting colour				Light-grey (RAL	
33	Колір фарбування				7038)	
	толр фароувания				сірий	
			Gas relay for main tar		Yes, Buchholz relay	
			Газове реле основ	НОГО	Так, реле	
		-	бака		Бухгольця	
			Gas relay for OLTC tar		Yes	
		-	Газове реле бака І		Так	
	A. J. Prince and T. J. C.		Oil temperature indic		Yes	
12 <i>1</i> 1 1	Additional devices		Індикатор темпера	тури	Так	
	Додаткові пристрої		Масла			
			Winding temperature	!	Yes	
			indicator		тез Так	
			Індикатор темпера обмоток	тури	Iak	
		-	OOMOTOK Oil level indicators		Yes	
			Oil level indicators Вказівники рівня масла		Так	
Щ_			рказівники рівпя М	uojia	ICIN	

			essure Relief Valve	Voc	
				Yes	
			бросний клапан	Так	
			nut-off valve ідсічний клапан	No	
			Hi		
		Si	Yes		
		Ф	Так		
2-	Movement on site sh	nould be possible o	n rails	Yes	
35	Переміщення на п	ілощадці трансф	орматора по рейкам	Так	
	Rollers with ribs			Yes	
36	Катки з ребордамі	И		Так	
	тани о росордани		For longitudinal	Ton	
			movement		
	NA/: d+b of moil mome			1524	
12/	Width of rail, mm		Для поздовжнього		
	Ширина колії, мм		переміщення		
			For transverse movement	2000	
			Для поперечного руху	2000	
38	The permissible nois	e level at the distar	nce 2 m, dB	<85	
38	Допустимий рівен	ь звуку на відстаі	ні 2 м, дБ	<85	
	«Impact-indicators»	on the transformer	for movement conditions		
	monitoring within th			No	
144	_		для контролю умов	Hi	
	руху протягом пер			1 "	
	Range of ambient te		· · · · · · · · ·	40/40	
40	Діапазон темпера	тур навколишньс	-40/+40		
	(мін./макс.)				
41	Installation altitude i	m.a.s.l.		<1000 m	
	Висота над рівнем	и моря, м.		×1000 III	
42	Seismic stability, not	less, MSK-64 point	S	_	
42	Сейсмостійкість за	а шкалою MSK-64	, балів	6	
	Service life, years, no	ot less than			
43	Строк експлуатац		<b>e</b>	30	
	Warranty period, yea	•			
44	Гарантія, років, не			5	
				Vaa	
45	Installation supervisi			Yes	
-	Послуги шеф-мон	i		Так	
			n automatics cabinet in		
		complete set		Yes	
		Шафа автомати		Так	
		охолодження в	повній комплектації		
		The control cables	complete set with		
	To be included on protection for the cables to be laid along the				
	the scope of supply   tank			Yes	
				Так	
'				I alk	
	HOCIABKM				
			e amount required during		
			e at site and for replenish		
		•	необхідній під час	If necessary	
		тимчасового зберігання на місці та для			
		поповнення			
		•		,	
		поповнення			

		Spares in conformity with the Supply	.,	
		Complete Set Data Sheet, set	Yes Так	
		Запчастини відповідно до аркуша	Tak	
		даних комплекту постачання, комплект Additional amount of oil for process		
		operations and replenishing during		
		installation works	Yes	
		Додаткова кількість масла для	Так	
		технологічних операцій і поповнення	rak	
		під час монтажних робіт		
	Delivery of the trans	former (filled with oil, oil in separate tank)	filled with oil	
47	· ·	ррматора (заправлений маслом, масло в	заправлений	
'	окремій ємності)	spinaropa (campazitomin maestom) maesto z	маслом	
		Complete Set Data Sheet	Yes	
		Технічні специфікації	Так	
		Quality Certificate	Yes	
		Сертифікат якості	Так	
		Certificates for transformer and completing		
		parts (products) of the system	Vac	
		Сертифікати на трансформатор і	Yes Так	
		комплектуючі частини (вироби)	Tak	
		системи		
		Technical Description and Operation		
		Manuals or Operation Guidelines (which		
		include the planned repair documentation)		
48	Documentation to	for the transformer, completing parts and		
	be submitted	systems	Yes	
		Технічний опис та інструкції з	Так	
		експлуатації (що включають		
		документацію щодо планового		
		ремонту) трансформатора,		
		комплектуючих частин і систем		
		Control diagrams of the Cooling Systems and	Vac	
		OLTC	Yes Так	
		Схеми керування системами охолодження та РПН	Tak	
		Acceptance Tests report (Certificates)		
		Звіт про приймальні випробування	Yes	
		(Сертифікати)	Так	
-	A dalling and an extreme	(Copinquality)		<u> </u>

Additional requirements:

Додаткові вимоги:

49

All documentation shall be translated to Ukrainian language

Документація має бути перекладена українською мовою.

The set includes oil for topping up the transformer.

У комплект входить олія для доливки в трансформатор.

The Supplier shall provide a qualified representative(s) on-site for installation and commissioning supervision if it is necessary to ensure the manufacturer's warranty. The appropriate representative(s) shall perform supervision on all tasks during the unloading, unpacking, erection and commissioning of the transformer. Taking into account the current situation regarding security risks in Ukraine remote (using photo and video surveillance) supervision could also be acceptable.

Постачальник повинен надати кваліфікованого(их) представника(ів) на будмайданчику для нагляду за монтажем та введенням в експлуатацію (шеф монтаж), якщо це необхідно для забезпечення гарантії виробника. Відповідні представники повинні здійснювати нагляд за всіма діями під час розвантаження, розпакування, монтажу та введення трансформатора в експлуатацію. Беручи до уваги поточну ситуацію щодо ризиків безпеки в Україні, дистанційний (з використанням фото- та відеоспостереження) нагляд також може бути прийнятним.

# 2. Three winding power transformer 25 MVA, 110/27.5/6 kV

Силовий трансформатор із трьома обмотками 25 МВА, 110/27.5/6 кВ

Item name	Quantity	Delivery point	Vendor addresses of aftersales support in Ukraine
Three winding power transformer 25 MVA, 110/27.5/6 kV	1	DAP Lviv, Ukraine	

No	TECHNICAL DATA	Data/3	начення
	TEXHIGHTHAPAMETPA	Required by	Guaranteed by
		the Customer	the Supplier

				Необхідне	Гарантоване
				Замовнику	постачаль-н
				Gamozining	ИКОМ
1	Type designation Тип			*	
2	Manufacturer Виробник			*	
3	Installation (Outdoor, indoor) Виконання (зовнішньої, внутрішн	ьої установки)		Outdoor Зовнішньої установки	
4	Type of transformer (single-phase, thr тип трансформатора (однофазни			three-phase Трифазний	
5	Type of transformer Insulation (oil-fill Тип ізоляції трансформатора (ма	ed, dry)	)	oil-filled маслонапо внений	
6	Rated capacity of winding, kVA Номінальна потужність обмотки,	кВА	MV CH	25000 25000 25000	
7	Rated frequency, Hz Номінальна частота, Гц		LVIIII	50	
8	Rated voltage, kV		HV BH MV CH	110 27,5	
	Номінальна напруга, кВ		LV HH HV BH	6 126	
9	Maximum operating voltage, kV Найбільша робоча напруга, кВ		MV CH LV HH	30 7,2	
10	Nominal winding voltage (no-load corposition), kV	ndition, on main tap	HV BH MV CH	115 27,5	
10	Номінальна напруга обмоток (на нейтральному положенні РПН, П		LV HH	6,3	
11	Neutral operating mode (isolated, soli grounded)	idly grounded, effectively	HV BH	solidly grounded глухозазем лена	
111	Режим роботи нейтралі (ізольова ефективно заземлена)	MV CH	isolated Ізольована		
		LV HH	isolated Ізольована		
12	Winding connection and group Схема з'єднання обмоток і група			Yn/D/D-11-1 1	
		Туре (OLTC, NLTC) Тип (РПН, ПБЗ)		OLTC PПH	
13	Tap changer HV	Range Діапазон		±9x1,78% AC220V (3-	
	Регулювання напруги ВН	_	Voltage of OLTC drive, V Напруга приводу РПН		
14	Tap changer MV Регулювання напруги CH	Туре (OLTC, NLTC) Тип (РПН, ПБЗ)		(3-ф) NLTC ПБЗ	

	Ran	ige				
		Діапазон			±2x2,5%	
	l l	Voltage of OLTC drive, V Напруга приводу РПН			-	
-			,		Yas	
15	OLTC control microprocessor-based device Мікропроцесорний пристрій управлінн		-		Yes Так	
16	Type of cooling system (ONAN, ONAF, OFAF Тип охолодження (природне, обдув, пр повітря, інше)	, other)			ONAF Обдув	
	повтря, пше				AC230V (3-	
17	Voltage of fan and oil pump motors, V Напруга двигунів вентиляторів і масло	онасосів	, B		рh) AC230 В (3-ф)	
10	Voltage of control circuits, V		OLTC PNH		AC230V (3- ph) AC230 B (3-ф)	
18	Напруга кіл керування, В		Cooling syst	em эхолодження	AC230V (3- ph) AC230 (3-ф)	
19	Transformer`s coefficient of performance (PEI), %, not less (PEI shall meet the requirements of the ecodesign level 2) Коефіцієнт корисної дії трансформатора (PEI), %, не менше (РЕІ має відповідати вимогам рівня 2 екодизайну трансформаторів)				99,7	
				HV BH	480	
		190				
20	Full Wave Lightning Impulse (LI), kV			LV HH	60	
20	Випробувальна напруга повного грозо	ьна напруга повного грозового імпульсу, кВ		Neutral HV Нейтраль ВН	200	
	Chopped Wave Lightning Impulse (LIC), kV		HV BH		550	
21	Випробувальна напруга зрізаного гроз	зового ім	іпульсу,	MV CH	220	
	кВ			LV HH	70	
				HV BH	200/200	
	Short-duration (1 min.) power-frequency w	ithstand v	voltage, kV	MV CH	85/85	
22	(ph-ground/ph-ph)			LV HH	25/25	
	Короткочасна (однохвилинна) змінна випробу напруга, кВ (відносно землі/між фазами)		вальна	Neutral HV Нейтраль ВН	100	
	Switching impulse (SI), kV (only for U≥330 k	kV)		HV BH	-	
23	Випробувальна напруга комутаційного (тільки для U≥330 kV)	о імпуль	су, кВ	MV CH	-	
	Short-Circuit Voltage on main tap position, Напруга короткого замикання на нейт		HV-LV B	Н-НН	10,5	
	позиції ПБЗ (РПН), %		HV-MV BH-CH		17,5	
			MV-LV C	H-HH	6,5	
25	No-load current, % Струм холостого ходу, %				0.7%	

			Transformatics setio	400 200 200
			Transformation ratio	400-300-200
			Коефіцієнт трансформації	/5 A
			Accuracy	10P
		Core 1	Клас точності	
		Обмотка 1	Rated accuracy limit factor (ALT/FS)	20
			Гранична кратність	
	HV embedded CTs		Burden, VA	20
26	Вбудовані ТС з боку		Навантаження, ВА	
	ВН		Transformation ratio	400-300-200
			Коефіцієнт трансформації	/5 A
			Accuracy	10P
		Core 2	Клас точності	-
		Обмотка 2	Rated accuracy limit factor (ALT/FS)	20
			Гранична кратність	
			Burden, VA	20
			Навантаження, ВА	
			Transformation ratio	600-400-300
			Коефіцієнт трансформації	/5
			Accuracy	10P
		Core 1	Клас точності	101
		Обмотка 1	Rated accuracy limit factor (ALT/FS)	20
			Гранична кратність	20
	MV embedded CTs Вбудовані ТС з боку СН		Burden, VA	20
27			Навантаження, ВА	20
			Transformation ratio	600-400-300
			Коефіцієнт трансформації	/5
			Accuracy	10P
		Core 2	Клас точності	104
		Обмотка 2	Rated accuracy limit factor (ALT/FS)	20
			Гранична кратність	20
			Burden, VA	20
			Навантаження, ВА	20
			Transformation ratio	
			Коефіцієнт трансформації	-
			Accuracy	
		Core 1	Клас точності	-
		Обмотка 1	Rated accuracy limit factor (ALT/FS)	
			Гранична кратність	-
	LV embedded CTs		Burden, VA	
20	Вбудовані ТС з боку		Навантаження, ВА	-
28	нн		Transformation ratio	
			Коефіцієнт трансформації	-
			Accuracy	
		Core 2	Клас точності	-
		Обмотка 2	Rated accuracy limit factor (ALT/FS)	
			Гранична кратність	-
			Burden, VA	
			Навантаження, ВА	-
2.0		Core 1	Transformation ratio	400-300-200
29	Neutral embedded CTs	Обмотка 1	Коефіцієнт трансформації	/5 A
			To the saleshanian	

	D6	Ī	T		т т	
	Вбудовані ТС в Ассигасу				10P	
	нейтралі		Клас точності	(=/==)	+	
			Rated accuracy limit factor	(ALI/FS)	20	
			Гранична кратність			
			Burden, VA		20	
			Навантаження, ВА			
			Transformation ratio		400-300-200	
			Коефіцієнт трансформа	щії	/5 A	
			Accuracy		10P	
		Core 2	Клас точності		101	
		Обмотка 2	Rated accuracy limit factor	(ALT/FS)	20	
			Гранична кратність			
			Burden, VA		20	
			Навантаження, ВА			
					Bushings	
					with RIP	
					internal	
				HV BH	insulation	
	Transformer connection	n to the grid wi	ith (Bushings, Cable		високоволь	
	Leads-in, Connection to	SF6 conduits)			тні вводи	
30	Підключення трансф	оорматора до	мережі (високовольтні		RIP	
	вводи, кабельні ввод	ци, підключен	іня до елегазових		Bushings	
	струмопроводів)			MV CH	високоволь	
					тні вводи	
					Bushings	
				LV HH	високоволь	
		тні вводи				
				HV BH	Porcelain	
				MV CH	фарфор	
31	External insulation (Por	celain/ polyme	er/other)		Porcelain	
31	Зовнішня ізоляція (ф	арфор/полік	иер/інше)		фарфор	
				1371111	Porcelain	
				LV HH	фарфор	
	C '(' )	, ,	11.7	HV BH	25	
32	Specific creepage distar			MV CH	30	
	Питома довжина шл	яху витоку (ф	раза-фаза), мм/кв	LV HH	30	
	Determine 1			-	Light-grey	
33	Painting colour				(RAL 7038)	
	Колір фарбування				сірий	
					Yes, Buchholz	
			Gas relay for main tank		relay	
			Газове реле основного ба	ака	Так, реле	
					Бухгольця	
			Gas relay for OLTC tank		Yes	
34	Additional devices		Газове реле бака РПН		Так	
.	Додаткові пристрої		Oil temperature indicator	Yes		
			Індикатор температури м	асла	Так	
			Winding temperature indicator		Yes	
			Індикатор температури о		Так	
		_	Oil level indicators		Yes	
	1		l level indicators		1 103	

	T			1
		Вказівники рівня масла	Так	
		Pressure Relief Valve	Yes	
		Сбросний клапан	Так	
		Shut-off valve	No	
		Відсічний клапан	Hi	
		Silica Gel filter	Yes	
		Фільтр з силікагелем	Так	
35	Movement on site sh	ould be possible on rails	Yes	
33	Переміщення на г	пощадці трансформатора по рейкам	Так	
36	Rollers with ribs		Yes	
30	Катки з ребордамі	<u> </u>	Так	
		For longitudinal movemen	t . 1524	
27	Width of rail, mm	Для поздовжнього пере	міщення	
37	Ширина колії, мм	For transverse movement	2000	
		Для поперечного руху	2000	
20	The permissible nois	e level at the distance 2 m, dB		
38		звуку на відстані 2 м, дБ	<85	
		on the transformer for movement conditions n	nonitoring	
	within the shipping t		No	
39		трансформаторі для контролю умов руху	I	
	періоду транспорт		P. C.	
		nperature, °C (min/max)		
40		ур навколишнього середовища, °С (мін./	макс.) -40/+40	
	Installation altitude			
41	Висота над рівнем		<1000 m	
	Seismic stability, not	•		
42	•	шкалою MSK-64, балів	6	
	Service life, years, no			
43	Строк експлуатац		30	
	Warranty period, yea	•	_	
44	Гарантія, років, не	•	5	
	Installation supervisi		Yes	
45	Послуги шеф-мон		Так	
	223,777 <b>= 347</b> mon	The cooling system automatics cabinet in com	inlete set	
		Шафа автоматики системи охолодження	в повній I Yes	
		комплектації	Так	
		The control cables complete set with protection	on for the	
		cables to be laid along the tank	Yes	
		Контрольні кабелі в комплекті із захисто		
	To be included on	кабелів, що прокладаються вздовж бака		
	the scope of supply	Nitrogen gas in the amount required during to		
	Включити в	storage at site and for replenish		
-	комплект	Азот у кількості, необхідній під час тимча	If necessary	
	поставки	зберігання на місці та для поповнення	1000010	
	11001 abitvi	Spares in conformity with the Supply Complet	e Set Data	
		Sheet, set	Yes	
		Запчастини відповідно до аркуша даних		
		комплекту постачання, комплект	ICIN	
		Additional amount of oil for process operation	ns and Yes	
		replenishing during installation works	Так	
		repienishing during installation works	Tak	

		Додаткова кількість масла для технологічних		
47		операцій і поповнення під час монтажних робіт former (filled with oil, oil in separate tank) орматора (заправлений маслом, масло в окремій Complete Set Data Sheet Технічні специфікації	filled with oil заправлени й маслом Yes Так	
		Quality Certificate Сертифікат якості  Certificates for transformer and completing parts (products) of the system Сертифікати на трансформатор і комплектуючі	Yes Так Yes Так	
48	Documentation to be submitted	частини (вироби) системи  Technical Description and Operation Manuals or Operation Guidelines (which include the planned repair documentation) for the transformer, completing parts and systems  Технічний опис та інструкції з експлуатації (що включають документацію щодо планового ремонту) трансформатора, комплектуючих частин і систем	Yes Так	
		Control diagrams of the Cooling Systems and OLTC Схеми керування системами охолодження та РПН	Yes Так	
		Acceptance Tests report (Certificates) Звіт про приймальні випробування (Сертифікати)	Yes Так	

Additional requirements:

Додаткові вимоги:

All documentation shall be translated to the Ukrainian language

Документація має бути перекладена українською мовою.

The set includes oil for topping up the transformer.

У комплект входить олія для доливки в трансформатор.

The Supplier shall provide a qualified representative(s) on-site for installation and commissioning supervision if it is necessary to ensure the manufacturer's warranty. The appropriate representative(s) shall perform supervision on all tasks during the unloading, unpacking, erection and commissioning of the transformer. Taking into account the current situation regarding security risks in Ukraine remote (using photo and video surveillance) supervision could also be acceptable.

Постачальник повинен надати кваліфікованого(их) представника(ів) на будмайданчику для нагляду за монтажем та введенням в експлуатацію (шеф монтаж), якщо це необхідно для забезпечення гарантії виробника. Відповідні представники повинні здійснювати нагляд за всіма діями під час розвантаження, розпакування, монтажу та введення трансформатора в експлуатацію. Беручи до уваги поточну ситуацію щодо ризиків безпеки в Україні, дистанційний (з використанням фото- та відеоспостереження) нагляд також може бути прийнятним.

# 3. Three winding power transformer 25 MVA, 110/27.5/10 kV

Силовий трансформатор із трьома обмотками 25 МВА, 110/27.5/10 кВ

Item name	Quantity	Delivery point	Vendor addresses of aftersales support in Ukraine
Three winding power transformer 25 MVA, 110/27.5/10 kV	2	DAP Krasne, Zolochivsky district, Lviv region, Ukraine	

		Data/3	начення	
No	TECHNICAL DATA TEXHIЧНІ ПАРАМЕТРИ	Required by the Customer Необхідне Замовнику	Guaranteed by the Supplier Гарантоване постачаль-н иком	
1	Type designation Тип		*	
12	Manufacturer Виробник		*	
3	Installation (Outdoor, indoor) Виконання (зовнішньої, внутрішньої установки)	Outdoor Зовнішньої установки		
1/1	Type of transformer (single-phase, three-phase) тип трансформатора (однофазний, трифазний)		three-phase Трифазний	
5	Type of transformer Insulation (oil-filled, dry) Тип ізоляції трансформатора (маслонаповнений, сухий	)	oil-filled маслонапо внений	
6	Rated capacity of winding, kVA Номінальна потужність обмотки, кВА	HV BH MV CH LV HH	25000 25000 25000	
7	Rated frequency, Hz Номінальна частота, Гц		50	
8	Rated voltage, kV Номінальна напруга, кВ	HV BH MV CH LV HH	110 27,5 10	
9	Maximum operating voltage, kV Найбільша робоча напруга, кВ	HV BH MV CH LV HH	126 33 11,5	
1111	Nominal winding voltage (no-load condition, on main tap position), kV	HV BH MV CH	115 30	

	Номінальна напруга обмоток (на	VODOCTORAVO	опі в			
	Номінальна напруга обмоток (на холостому ході в нейтральному положенні РПН, ПБЗ), кВ			LV HH	11	
	Neutral operating mode (isolated, solidly grounded, effectively grounded)			HV BH	solidly grounded глухозазем лена	
	Режим роботи нейтралі (ізольова ефективно заземлена)	на, глухозаз	вемлена,	MV CH	isolated Ізольована	
				LV HH	isolated Ізольована	
12	Winding connection and group Схема з'єднання обмоток і група				Yn/D/D-11-1 1	
		Type (OLTC, Тип (РПН,			OLTC PПH	
13	Tap changer HV	Range Діапазон			±9x1,78%	
	Регулювання напруги ВН		OLTC drive, V оиводу РПН		AC230V (3- ph) AC230 В (3-ф)	
		Type (OLTC,	•		NLTC ПБ3	
14	Tap changer MV Регулювання напруги СН	Тип (РПН, ПБЗ) Range Діапазон		±2x2,5%		
		Voltage of OLTC drive, V Напруга приводу РПН			-	
15	OLTC control microprocessor-based de Мікропроцесорний пристрій упра	вління РПН	в об'ємі по		Yes Так	
16	Type of cooling system (ONAN, ONAF, Тип охолодження (природне, обду повітря, інше)			ція масла та	ONAF Обдув	
17	Voltage of fan and oil pump motors, V Напруга двигунів вентиляторів і м		в, В		AC230V (3- ph) AC230 В (3-ф)	
18	Voltage of control circuits, V		ОLТС РПН		AC230V (3- ph) AC230 B (3-ф)	
10	Напруга кіл керування, В  Cooling s Системі			tem эхолодження	AC230V (3- ph) AC230 (3-ф)	
19	Transformer's coefficient of performance (PEI), %, not less (PEI shall meet the requirements of the ecodesign level 2) Коефіцієнт корисної дії трансформатора (PEI), %, не менше (РЕІ має відповідати вимогам рівня 2 екодизайну трансформаторів)			99,7		
20	Full Wave Lightning Impulse (LI), kV Випробувальна напруга повного г	грозового ім	іпульсу, кВі	HV BH MV CH LV HH	480 190 60	
				Neutral HV	200	

					I I a X-ma a	<del>                                     </del>	
					Нейтраль ВН		
	Channad Waya Lightnin	a Impulso (IIC	\		HV BH	550	
21	Chopped Wave Lightning Impulse (LIC), kV Випробувальна напруга зрізаного грозового імпульсу,				MV CH	220	
-1	кВ				LV HH	70	
	IND				HV BH	200/200	
	Short-duration (1 min.)	nowar fragues	acy withstand	voltago kV		85/85	
	(ph-ground/ph-ph)	power-frequer	icy withstand	voitage, kv	LV HH	25/25	
22	Короткочасна (однох	випинна) змі	інна виппобу	вапьна	Neutral HV	23/23	
	напруга, кВ (відносно			вальна	Нейтраль	100	
	папруга, ко (відпоопо	OCIVIS II, WIIAK Q	acamin		ВН		
	Switching impulse (SI), I	(V (only for LI>	·330 kV)		HV BH	_	
23	Випробувальна напр			су кВ			
	(тільки для U≥330 kV)	уга комутаці	VIII OT O IIVII TYSTO	oy, KD	MV CH	-	
	Short-Circuit Voltage on	main tan nosi	tion. %	HV-LV B	H-HH	10,5	
24	Напруга короткого за					17,5	
<u> </u>	позиції ПБЗ (РПН), %		3111		H-HH	6,5	
						3,3	
25	No-load current, %	0/				0.7%	
	Струм холостого ход	y, %					
			Transformation ratio		400-300-200		
			Коефіцієнт	трансфор	мації	/5 A	
			Accuracy	Accuracy		10P	
		Core 1	Клас точності		104		
		Обмотка 1	Rated accuracy limit factor (ALT/FS)			20	
			Гранична кратність			20	
	HV embedded CTs		Burden, VA			20	
26	Вбудовані ТС з боку ВН		Навантаження, ВА		1		
-			Transformation ratio			400-300-200	
			Коефіцієнт трансформації		/5 A		
		Core 2 Обмотка 2	Accuracy		10P		
			Клас точності				
			Rated accuracy limit factor (ALT/FS)		20		
			Гранична кратність				
			Burden, VA Навантаження, BA			20	
				-		600-400-300	
			Transformation ratio		/5		
			Коефіцієнт трансформації Ассигасу		/3		
		Core 1	Клас точно	сті		10P	
		Обмотка 1	Rated accuracy limit factor (ALT/FS)				
	MV embedded CTs	o omorna i	Гранична кратність		20		
	Вбудовані ТС з боку		Burden, VA				
27	CH		Навантаження, ВА		20		
			Transformation ratio		600-400-300		
				Коефіцієнт трансформації		/5	
		Core 2	Accuracy				
		Обмотка 2	Клас точності		10P		
			Rated accura	cy limit fact	tor (ALT/FS)	30	
			Гранична кр	-		20	

			Burden, VA		<del>                                     </del>	
			Навантаження, ВА		20	
			Transformation ratio			
			Коефіцієнт трансформа	ації	-	
			Accuracy			
		Core 1	Клас точності		-	
		Обмотка 1	Rated accuracy limit factor	(ALT/FS)		
			Гранична кратність	, , ,	-	
	LV embedded CTs		Burden, VA			
20	Вбудовані ТС з боку		Навантаження, ВА		-	
28	HH		Transformation ratio			
			Коефіцієнт трансформа	ації	-	
			Accuracy			
		Core 2	Клас точності		-	
		Обмотка 2	Rated accuracy limit factor	(ALT/FS)		
			Гранична кратність		-	
			Burden, VA			
			Навантаження, ВА		-	
			Transformation ratio		400-300-200	
			Коефіцієнт трансформа	ації	/5 A	
			Accuracy		10P	
		Core 1	Клас точності		101	
		Обмотка 1	Rated accuracy limit factor (ALT/FS)		20	
			Гранична кратність		20	
	Neutral embedded CTs		Burden, VA	20		
29	Вбудовані ТС в		Навантаження, ВА			
	нейтралі		Transformation ratio		400-300-200	
			Коефіцієнт трансформа	/5 A		
			Accuracy		10P	
		Core 2	Клас точності			
		Обмотка 2	Rated accuracy limit factor (ALT/FS)		20	
			Гранична кратність			
			Burden, VA		20	
		<u> </u>	Навантаження, ВА		Duchin	
					Bushings with RIP	
					internal	
				HV BH	insulation	
	Transformer connectior	to the grid wi	th (Rushings Cable		високоволь	
	Leads-in, Connection to	_	_ ·		тні вводи	
30		-	мережі (високовольтні		RIP	
	вводи, кабельні ввод		· · · · · · · · · · · · · · · · · · ·		Bushings	
	струмопроводів)	, , , , , , , , , , , , , , , , , , , ,		MV CH	високоволь	
	отрумопроводів)				тні вводи	
					Bushings	
			LV HI		високоволь	
L					тні вводи	
	Estamal travilation /B		/ a t b a )	IN COLL	Porcelain	
141	External insulation (Por			HV BH	фарфор	
	Зовнішня ізоляція (ф	арфор/полік	лер/інше)	MV CH	Porcelain	

					фарфор	
					Porcelain	
				LV HH	фарфор	
				HV BH	25	
32	Specific creepage distance (phase-ph	Specific creepage distance (phase-phase), mm/kV  MV CH			30	
32	Питома довжина шляху витоку (	фаза-фаза), мм/кВ		LV HH	30	
				LVIIII	Light-grey	
33	Painting colour				(RAL 7038)	
33	Колір фарбування	сірий				
					Yes, Buchholz	
		Gas relay for main tar	a k		relay	
		Газове реле основ		פעו	Так, реле	
		тазове реле основ	1010 08	ina	Бухгольця	
		Gas relay for OLTC tar			Yes	
		Газове реле бака в			Так	
		Oil temperature indic			Yes	
		•		2002	Так	
	Additional devices	Iндикатор темпера Winding temperature			Yes	
34		Індикатор темпера			Так	
	Додаткові пристрої	Oil level indicators	тури о	JWIOTOK		
			0000		Yes Так	
		Вказівники рівня м	acha			
		Pressure Relief Valve			Yes	
		Сбросний клапан			Так	
		Shut-off valve			No	
		Відсічний клапан			Hi	
		Silica Gel filter			Yes	
		Фільтр з силікагеле	PM -		Так	
35	Movement on site should be possibl				Yes	
	Переміщення на площадці тран	сформатора по реи	кам		Так	
36	Rollers with ribs				Yes	
	Катки з ребордами	1- 1 11 11			Так	
	L	For longitudinal m			1524	
37	Width of rail, mm	Для поздовжньо				
	Ширина колії, мм	For transverse mo			2000	
		Для поперечног	о руху			
38	The permissible noise level at the dis	<u>-</u>			<85	
	Допустимий рівень звуку на відс					
	«Impact-indicators» on the transforr	ner for movement con	ditions	monitoring	l	
39	within the shipping time period				No	
	Датчики ударів на трансформат	орі для контролю ум	юв рух	у протягом	Hi	
	періоду транспортування					
40	Range of ambient temperature, °C (min/max)			-40/+40		
	Діапазон температур навколишнього середовища, °С (мін./макс.)				· ·	
41	Installation altitude m.a.s.l.			<1000 m		
	Висота над рівнем моря, м.					
42	Seismic stability, not less, MSK-64 pc				6	
	Сейсмостійкість за шкалою MSK	-64, балів				
43	Service life, years, not less than				30	
	Строк експлуатації, років, не ме					
44	Warranty period, years, not less than	1			5	

	Гарантія, років, не	менше		
	Installation supervisi	Yes		
45	Послуги шеф-мон		Так	
	, 1000 y 1100 1	The cooling system automatics cabinet in complete set Шафа автоматики системи охолодження в повній комплектації	Yes Так	
		The control cables complete set with protection for the cables to be laid along the tank Контрольні кабелі в комплекті із захистом для кабелів, що прокладаються вздовж бака	Yes Так	
46	To be included on the scope of supply Включити в комплект	Nitrogen gas in the amount required during temporary storage at site and for replenish Азот у кількості, необхідній під час тимчасового зберігання на місці та для поповнення	If necessary	
	поставки	Spares in conformity with the Supply Complete Set Data Sheet, set Запчастини відповідно до аркуша даних комплекту постачання, комплект	Yes Так	
		Additional amount of oil for process operations and replenishing during installation works Додаткова кількість масла для технологічних операцій і поповнення під час монтажних робіт	Yes Так	
	,	former (filled with oil, oil in separate tank)	filled with oil	
47		орматора (заправлений маслом, масло в окремій	заправлени	
	ємності)		й маслом	
		Complete Set Data Sheet	Yes	
		Технічні специфікації	Так	
		Quality Certificate	Yes	
		Сертифікат якості	Так	
	Documentation to be submitted	Certificates for transformer and completing parts (products) of the system Сертифікати на трансформатор і комплектуючі частини (вироби) системи	Yes Так	
48		Technical Description and Operation Manuals or Operation Guidelines (which include the planned repair documentation) for the transformer, completing parts and systems  Технічний опис та інструкції з експлуатації (що включають документацію щодо планового ремонту) трансформатора, комплектуючих частин і систем	Yes Так	
		Control diagrams of the Cooling Systems and OLTC Схеми керування системами охолодження та РПН	Yes Так	
		Acceptance Tests report (Certificates) Звіт про приймальні випробування (Сертифікати)	Yes Так	

Additional requirements:

Додаткові вимоги:

All documentation shall be translated to Ukrainian language

Документація має бути перекладена українською мовою

The set includes oil for topping up the transformer.

У комплект входить олія для доливки в трансформатор.

The Supplier shall provide a qualified representative(s) on-site for installation and commissioning supervision if it is necessary to ensure the manufacturer's warranty. The appropriate representative(s) shall perform supervision on all tasks during the unloading, unpacking, erection and commissioning of the transformer. Taking into account the current situation regarding security risks in Ukraine remote (using photo and video surveillance) supervision could also be acceptable.

Постачальник повинен надати кваліфікованого(их) представника(ів) на будмайданчику для нагляду за монтажем та введенням в експлуатацію (шеф монтаж), якщо це необхідно для забезпечення гарантії виробника. Відповідні представники повинні здійснювати нагляд за всіма діями під час розвантаження, розпакування, монтажу та введення трансформатора в експлуатацію. Беручи до уваги поточну ситуацію щодо ризиків безпеки в Україні, дистанційний (з використанням фото- та відеоспостереження) нагляд також може бути прийнятним.

The equipment/goods/materials provided by the Supplier shall meet all requirements and standards of Ukrainian legislation and be supported by the relevant document(s) (namely a declaration, certificate, or any other document confirming the fulfillment of the specified requirements relating to the equipment/goods/materials).

The procurement agent (Tetra Tech) will also consider proposals that comply with other regional or international standards, as long as they meet or exceed the technical requirements.

# ATTACHMENT B – DETAILED BUDGET

Please refer to the Excel template entitled "Attachment B\_Detailed Budget".

Tetra Tech will score quotes based on total price, but reserves the right to make partial and/or multiple awards for individual line items.

Prices quoted in this document shall be valid for a 60-day time period, and include all taxes and other costs excluding VAT tax originated in Ukraine.

# ATTACHMENT C – REPRESENTATIONS AND CERTIFICATIONS

1.

	Organizational Conflict of Interest Representation
he l	bidder represents, to the best of its knowledge and belief, that this award:
do	oes [ ] or does not [ ] involve an organizational conflict of interest.
	Please see FAR 52.209-8 for further explanation.
	Non-Government Owned or Controlled Certification:
	bidder represents that it is [ ] is not [ ] a privately-held company and it is [ ] is not [ ] owned or trolled in any way by any government.
	Proposed Billing Rates Certification:
	bidder represents that the prices proposed are [ ] are not [ ] standard rates and have [ ] have [ ] previously been billed to other clients for similar work.
	Unique Entity Identifier (UEI) Number (required if quotation is more than USD \$30,000)
	(please use one box per number or lett
	Source and Nationality of Goods and Commodities
	This is to certify that the Bidder is:
	a. an individual who is a citizen or legal resident of
	b. a corporation of partnership organized under the laws of
	<ul> <li>a controlled foreign corporation of which more than 50% of the total combined voting power of all classes of stock is owned by United States shareholders; or</li> </ul>
	d. a joint venture or incorporated association consisting entirely of individuals, partnerships or corporations. If so, please describe separately the citizenship or legal status of the individuals, the legal status of the partnership or corporations, and the percentage (%) of voting power of the corporations.
)	This is to certify that the <b>Source</b> (the country from which a commodity is to be shipped from) of the Equipment to be supplied under this Order is:

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it "does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument" in the provision at 52.204-26, Covered

Services or Equipment (Aug 2020).

Telecommunications Equipment or Services—Representation, or in paragraph (v) of the provision at 52.212-3, Offeror Representations and Certifications-Commercial Items.

(a) Definitions. As used in this provision—

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

# (b) Prohibition.

- (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to—
- (i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.
- (2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to—
- (i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.
- (c) *Procedures*. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (https://www.sam.gov) for entities excluded from receiving federal awards for "covered telecommunications equipment or services".
  - (d) Representation. The Offeror represents that—

- (1) It  $\Box$  will,  $\Box$  will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds "will" in paragraph (d)(1) of this section; and
- (2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that—

It  $\Box$  does,  $\Box$  does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds "does" in paragraph (d)(2) of this section.

# (e) Disclosures.

(1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded "will" in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

# (i) For covered equipment—

- (A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);
- (B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and
- (C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

# (ii) For covered services—

- (A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or
- (B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.
- (2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded "does" in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

# (i) For covered equipment—

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);
(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and
(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.
(ii) For covered services—
(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or
(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.
By signing below, the Offeror certifies that the representations and certifications made, and information provided herein, are accurate, current and complete.
Signature Date :
Name of and title of authorized signature:
<ol> <li>Certification Regarding Debarment, Suspension, Proposed Debarment and Other Responsibility Matters (FAR 52.209-5)</li> </ol>
The Subcontractor certify, to the best of their knowledge and belief, that:
<ul> <li>(i) The Subcontractor and/or any of its Principals:</li> <li>(A) are are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any U.S. Federal Government agency</li> <li>(B) have have not within the three-year period preceding this certification, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery,</li> </ul>

	bribary falcification or destruction of records making falco statements to sureline as
	bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
	(C) are □ are not □ presently indicted for, or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.
(ii)	(A) The Subcontractor, aside from the offenses enumerated in paragraphs (a)(1)(i)(A), (B) & (C) of this provision, has □ has not □ within the past three years, relative to tax, labor and employment, environmental, antitrust, or consumer protection laws:
	<ol> <li>been convicted of a Federal or state felony (or has any Federal or state felony indictments currently pending against them); or</li> </ol>
	<ul> <li>(2) had a Federal court judgment in a civil case brought by the United States rendered against them; or</li> </ul>
	(3) had an adverse decision by a Federal administrative law judge, board, or commission indicating a willful violation of the law.
	(B) if the Subcontractor has responded affirmatively, the Subcontractor shall provide additiona information if requested by the Contracting Officer; and
(iii) (a)	The Subcontractor has $\square$ has not $\square$ , within a three-year period preceding this certification, had one or more contracts terminated for default by any U.S. Federal Government agency.  (2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).
	This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.
(b)	The Subcontractor shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Subcontractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
(c)	A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Subcontractor's responsibility. Failure of the Subcontractor to furnish a certification or provide such additional information as requested by the Contracting Officer, or Tt, may render the Subcontractor non-responsible.
(d)	Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Subcontractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
(e)	The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Subcontractor knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may require Tt to terminate the contract resulting from this solicitation for default.
	below, the Subcontractor certifies that the representations and certifications made, and information erein, are accurate, current and complete
Signature:	Date:
Name of ar authorized	

Subcontractor:	
-	
8. 52.203-11 Certificatio Transactions.	n and Disclosure Regarding Payments to Influence Certain Federal
	nsert the following provision: sure Regarding Payments to Influence Certain Federal Transactions (Sept 2007)
1602(8). The terms "agency agency," "person," "reasona	this provision—"Lobbying contact" has the meaning provided at <u>2 U.S.C.</u> , "influencing or attempting to influence," "officer or employee of an ble compensation," and "regularly employed" are defined in the FAR itled "Limitation on Payments to Influence Certain Federal Transactions"
(b) <i>Prohibition</i> . The prohi	bition and exceptions contained in the FAR clause of this solicitation tents to Influence Certain Federal Transactions" (52.203-12) are hereby this provision.
(c) Certification. The offer belief that no Federal approp or attempting to influence an	or, by signing its offer, hereby certifies to the best of its knowledge and briated funds have been paid or will be paid to any person for influencing officer or employee of any agency, a Member of Congress, an officer or employee of a Member of Congress on its behalf in connection with the
(d) <i>Disclosure</i> . If any regist contact on behalf of the offer with its offer, OMB Standard registrants. The offeror neewhom payments of reasonab	
into this contract imposed by this provision or who fails t	f this certification and disclosure is a prerequisite for making or entering 31 U.S.C. 1352. Any person who makes an expenditure prohibited under of file or amend the disclosure required to be filed or amended by this a civil penalty of not less than \$10,000, and not more than \$100,000, for
	(End of provision)  ntractor certifies that the representations and certifications made, and are accurate, current and complete
Signature:	Date:

Name of and title of authorized signature:

Subcontractor:

# 9. 52.203-13 Contractor Code of Business Ethics and Conduct (Dec 2008)

	tor, in accordance with FAR 52.203-13 and 3.1003, Contractor Code of Business Ethics and rtifies that it:					
	has established and made available a written code of business ethics and conduct;					
	maintains an internal control system that detects and prevents improper conduct;					
	timely discloses to the Office of the Inspector General and the Contracting Officer credible evidence of a significant contract overpayment, of a violation of criminal law involving fraud, conflict of interest, bribery, and gratuities, or a violation of the False Claims Act;					
	fully cooperates with any U.S. Government agencies responsible for audits, investigations, and corrective actions.					
, , ,	, the Subcontractor certifies that the representations and certifications made, and information are accurate, current and complete.					
Signature:	Date:					
Name of and t	title of authorized signature:					
Subcontractor	Subcontractor:					

# 10. Foreign Person, Company, or Entity a. Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it— Does not comply with the Secondary Arab Boycott of Israel; and Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec. 2407(a) prohibits a United States person from taking. By signing below, the Subcontractor certifies that the representations and certifications made, and information provided herein, are accurate, current and complete. Signature: Date: Name of and title of authorized signature: Subcontractor:

# 11. 52.227-15 Representation of Limited Rights Data and Restricted Computer Software.

As prescribed in 27.409(c), insert the following provision:

Representation of Limited Rights Data and Restricted Computer Software (Dec 2007)

1. (a) This solicitation sets forth the Government's known delivery requirements for data (as defined in the clause at 52.227-14, Rights in Data-General). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data-General clause at 52.227-14 included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data instead. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

2. (b) By completing the remainder of this paragraph, the offeror represents that it has reviewed the

- requirements for the delivery of technical data or computer software and states [offeror check appropriate block]
  None of the data proposed for fulfilling the data delivery requirements qualifies as limited rights data or restricted computer software; or

  Data proposed for fulfilling the data delivery requirements qualify as limited rights data or restricted computer software and are identified as follows:
- 3. (c) Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of the data should a contract be awarded to the offeror.

(End of provision)

# ATTACHMENT D – TETRA TECH SUBCONTRACT (PURCHASE ORDER) TEMPLATE

Tetra Tech ES, Inc. 1320 North Courthouse Road, Suite 600 Arlington, VA 22201 USA

Tel: 703-387-2111

# PURCHASE ORDER COVER PAGE

ORDER # 154-UCEM-1810-XXXXXXXX	FIRM-FIXED-PRICE:	USD \$XXX	DATE: Date of	signing			
PERIOD OF PERFORMANCE: XX calendar days from the date of signing							
SUPPLIER NAME: XXX ADDRESS: XXX							
	DESCRIPTION OF SER	VICES					
. •	This Purchase Order ("Agreement") between Tetra Tech ES, Inc. ("Tt") and Supplier is for ordering the goods and/or services described in Attachment A for the prices specified below in accordance with the Purchase Order General Conditions.						
SCHEDULE OF SERVICES	5	UNIT PRICE	QTY	PRICE			
See Attachment A				\$XXX			
AGREEMENT OF THE PARTIES  Supplier agrees to deliver the goods and/or services for the fixed unit prices in the Schedule of Delivery in accordance with this Agreement. It is understood by the Parties that the prices listed cover all expenses related to the provision of the goods and/or services, including but not limited to, equipment, supplies, travel, and all other costs of doing business such as taxes and communications.  Tetra Tech ES, Inc.  Name/Title and Date:  Supplier							
Name/Title and Date:							

## **TERMS AND CONDITIONS**

- Independent Relationship. Nothing in this Agreement shall be construed as creating anything other than
  an independent supplier relationship between Tetra Tech and Supplier. Supplier represents that it is in the
  business of providing goods and/or services of the type specified in the Description and Schedule of
  Delivery, and has, or has the means of obtaining, all of the necessary training, equipment and supplies to
  deliver the goods and/or services.
- 2. Performance. Supplier agrees to deliver the goods and/or services promptly and efficiently with all due care and skill and to customary professional standards. Supplier agrees to re-deliver any goods and/or services without charge that are deemed noncompliant with this standard by Tetra Tech..
- **3. Assignment.** Supplier agrees not to subcontract the goods and/or services or any benefits arising from this Agreement without the prior written consent of Tetra Tech.
- **4. Substitutions.** Supplier agrees not to substitute goods and/or services or charge for extra goods and/or services without the prior written consent of Tetra Tech.
- 5. Compensation and Payment. Payment of the fixed unit prices in the Schedule of Delivery shall constitute full and complete payment for all goods and/or services to be delivered under this Agreement. Tetra Tech shall make payment to Supplier in 15 calendar days after Supplier submits an invoice for accepted goods and/or services, as well as a completed and fully executed version of the Acceptance Certificate included in Exhibit 4.

The vendor shall submit their invoice to Tetra Tech upon completion/delivery of all services and goods ordered to: <a href="mailto:PAGS-AP@tetratech.com">PAGS-AP@tetratech.com</a> <a href="mailto:Ashley.Hunziker@tetratech.com">Ashley.Hunziker@tetratech.com</a>, <a href="mailto:Lainey.Malone@tetratech.com">Lainey.Malone@tetratech.com</a>, and <a href="mailto:Kara.Wayman@tetratech.com">Kara.Wayman@tetratech.com</a>.

To constitute a proper invoice, each invoice must provide the following information: All Invoices so submitted shall include:

- Vendor's name and address;
- Date and period covered by the invoice;
- The Purchase Order number assigned by Tetra Tech to this Agreement as well as the Project Code assigned on the Purchase Order cover page;
- Product or service delivered and fixed price per product or service, per Attachment B;
   and

Any invoice or request not submitted to this address or in a manner other than that described herein shall constitute an improper invoice and shall not be reimbursed.

Each invoice must include a signed certification statement similar to that set forth below "I certify that the amount invoiced represents charges that, to the best of my knowledge and belief, are both allowable and allocable; and have been properly incurred in the performance of the work/delivery of supplies specified, during the period specified herein."

Invoices shall be submitted in United States Dollars. Tetra Tech shall make final payment only upon acceptance of all goods and/or services supplied in a complete and satisfactory manner by the Subcontractor.

**6. Title.** Tetra Tech retains the right to transfer title at any time to any organization or entity in the Cooperating Country. At the time that any items supplied under this Agreement are transferred to any entity within the Cooperating Country, all rights to warranty support and service provided to Tetra Tech under this Agreement shall be transferred with the items to the new end-user. The Supplier shall continue to honor all warranty support and services for the duration of the warranty period.

7. Warranty. The Supplier warrants that the items delivered hereunder are merchantable and free of defects. All equipment supplied under this order must be covered by the manufacturer's standard international warranty which shall, at a minimum, protect Tetra Tech from any loss due to defective workmanship, material, and parts after the equipment is delivered to and accepted by Tetra Tech. The warranties for each item are specified in the table below. In the event that any warranty is breached, Tetra Tech may require, and the Supplier is bound, to remedy all defects and faults, including both workmanship and materials within a reasonable time of notification. The Supplier shall be responsible for all necessary domestic transportation charges required to ship the defective commodities to the Supplier and replacement commodities to Tetra Tech. In the event of the Supplier's refusal, failure, or inability to remedy such discrepancies within a reasonable time of notification, Tetra Tech may remedy such defects on its own and claim the reasonable cost of such remedial action from the Supplier.

# [Insert Table With Warranty by Item]

- 8. Compliance with Laws. In the performance of obligations under this Agreement, Supplier shall comply strictly with all applicable laws, regulations and orders of the jurisdiction in which goods are provided and/or the services are performed. Supplier represents and warrants that it has not made or offered to make, and will not make or offer to make, any payment of money or anything of value, directly or indirectly, to any government official, political party, or candidate for political office for the purpose of obtaining or retaining business.
- **9. Inspections and Acceptance.** The Supplier shall tender for acceptance only those items that conform to the requirements of this subcontract. Tetra Tech reserves the right to inspect or test any supplies that have been tendered for acceptance.
- 10. Excusable delays. The Supplier shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Supplier and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Supplier shall notify Tetra Tech in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to Tetra Tech of the cessation of such occurrence.

## 11. Termination.

- (a) Without Cause. Tetra Tech may terminate for its convenience all or any part of this order at any time by written notice to Supplier for failure to make delivery.
- (b) With Cause. If Supplier fails to make delivery of the Goods and/or provide services in accordance with the delivery dates specified in this order, or fails to perform any other provision of this order, or so fails to make progress as to endanger performance of this order in accordance with its terms, and does not cure such failure within (10) days after notice from the Tetra Tech, Tetra Tech may (in addition to any other right or remedy provided by this order or by law) terminate all or any part of this order by written notice to Supplier without liability and purchase substitute goods and/or services elsewhere, and Supplier shall be liable to Tetra Tech for any excess cost occasioned Tetra Tech thereby.
- **12. Time is of the Essence.** Time is of the essence in the delivery of goods and performance of services under this Agreement.
- 13. Tax Liability. As an independent private contractor, the Supplier is responsible for all local, state, federal or other taxes or levies that may be due on the Supplier's fees paid under this Agreement, including social security and payroll taxes. Additionally, the Supplier shall be responsible for the payment of any and all taxes imposed by the country in which production and supply are being performed, including municipal, local, and national that may be assessed by the Host Country against the Supplier for monies received by the Supplier from Tetra Tech in the performance of this Agreement.
- **14.** Limitation of Liability. Neither party will be liable to the other for any indirect or consequential damages even if the party has been advised as to the possibility of such damages, and regardless of whether the

claim for such damages is asserted under a theory of breach of contract, tort or any other theory of liability, and any claim to such damages is expressly waived. For purposes of this section, any damages payable to third parties for an indemnification obligation shall be construed as direct damages. Except for indemnification obligations and personal injury claims, the liability of wither party to the other under this agreement shall not exceed an amount equal to the equal to the value of any and all payments made to supplier under this agreement.

- **15. Entire Agreement.** The Agreement cover page and these Terms and Conditions constitute the entire agreement made between the Parties. Any variation or addition to this Agreement will only be effective if agreed in writing by an authorized officer of the company.
- **16. Dispute Resolution.** If any dispute or difference arises in connection with this Agreement, the Parties agree to negotiate promptly and in good faith to reach a resolution. Any claim under this Agreement shall be subject to the exclusive jurisdiction of the courts of the Commonwealth of Virginia or the US District Court for the Eastern District of Virginia.
- **17. Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.

# 18. Clauses Incorporated By Reference:

This Agreement incorporates the following Federal Acquisition Regulation (48 CFR Chapter 1) and the U.S. Agency for International Development Acquisition Regulation (48 CFR, Chapter 7) clauses, either given in full text or by reference. Those clauses incorporated by reference shall have the same force and effect as if they were given in full text. Upon request, Tetra Tech will make their full text available.

Whenever necessary to make the context of the FAR and AIDAR clauses applicable in this Agreement, the term "Supplier" shall mean "the Supplier", the term "Contract" shall mean this Agreement, and the terms "Government", "Contracting Office" and equivalent phrases shall mean Tetra Tech except that the term "Government" and "Contracting Office" do not change: (1) in the phrases "Government Property", "Government Furnished Property", and "Government Owned Property"; (2) in any patent clauses incorporated herein: (3) when a right, act, authorization or obligation can be granted or performed only by the Government's duly authorized representative: (4) when title to property is to be transferred directly to the Government: (5) when access to proprietary financial information or other data is required except for authorized audit firms; (6) when a "sovereign right" is involved; and (7) where specifically modified herein. In addition, such other inherent or statutory obligations of Prime Supplier in a contract with an agency of the United States Government shall apply to the Supplier as obligations to either Tetra Tech or the Government, as applicable.

# FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

FAR: <a href="http://acquisition.gov/far/index.html">http://acquisition.gov/far/index.html</a>

# FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)

<u>52.203-19</u>, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (Jan 2017).

<u>52.204-25</u>, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (Nov 2021) (Section 889(a)(1)(A) of Pub. L. 115-232).

52.222-21, Prohibition of Segregated Facilities (Apr 2015).

52.222-26, Equal Opportunity (Sept 2016) (E.O.11246).

52.222-35, Equal Opportunity for Veterans (Jun 2020) ( 38 U.S.C.4212(a));

- 52.222-36, Equal Opportunity for Workers with Disabilities (Jun 2020)( 29 U.S.C.793).
- 52.222-37, Employment Reports on Veterans (Jun 2020) (38 U.S.C.4212).
- 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496)
- 52.222-50, Combating Trafficking in Persons (Nov 2021) (22 U.S.C. chapter 78 and E.O. 13627).
- 52.222-50, Alternate I (Mar 2015) of 52.222-50( 22 U.S.C. chapter 78 and E.O. 13627).
- 52.222-55, Minimum Wages for Contractor Workers under Executive Order 14026 (Jan 2022)
- 52.222-62, Paid Sick Leave Under Executive Order 13706 (JAN 2022) (E.O. 13706)
- 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (Nov 2021)
- 52.242-15, Stop-Work Order (AUG 1989)

# **Attachment A**

# STATEMENT OF WORK/DETAILED BUDGET

Line Item	Description	Specification	Warranty Period	Qty	Unit Price, <mark>USD</mark>	Extended Price, <mark>USD</mark>
1						xxx
2						xxx
3						xxx
GRAND TO	TAL, <mark>USD</mark> excludi	ng VAT:				XXX

Delivery Terms (from date the order is placed until the day the order is delivered): XX days

Place of Delivery: City, address

Location of Service Center(s) for After-Sales Service, Including Warranty Repair: XX

The subcontractor's final and complete quote submitted in response to RFQ No. XXXXXX is hereby incorporated by reference.