EGAT's Privacy Notice on Procurement, Inventory Management and Contract Administration

Electricity Generating Authority of Thailand (EGAT) has performed the protection of the Personal Data regarding procurement, inventory management and contract administration to be in accordance with **the Personal Data Protection Act B.E. 2562** (the "2019 PDPA"), which comes into effect on June 1, 2022.

Details about EGAT's Privacy Notice on Procurement, Inventory Management and Contract Administration are available for you at https://www.egat.co.th/privacy-notice-procurement en.html or the below QR Code.



The Redaction of Sensitive Personal Data

EGAT has announced the Privacy Notice on Procurement, Inventory Management and Contract Administration for the collection, use or disclosure of Personal Data, excluding the Sensitive Personal Data.

Should the documents you wish to submit to EGAT contain the Sensitive Personal Data as defined in Section 26 of the 2019 PDPA, pertaining to racial, ethnic origin, political opinions, cult, religious or philosophical beliefs, sexual behavior, criminal records, health data, disability, trade union information, genetic data, biometric data, or of any data which may affect you in the same manner, you shall redact or conceal such data before submitting to EGAT.

ประกาศความเป็นส่วนตัว (Privacy Notice) สำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหาร สัญญาของ กฟผ.

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) ได้ดำเนินการคุ้มครองข้อมูลส่วนบุคคลสำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหารสัญญา เพื่อให้เป็นไปตามพระราชบัญญัติคุ้มครองข้อมูลส่วนบุคคลของ ประเทศไทย พ.ศ. 2562 (PDPA) ซึ่งมีผลบังคับใช้อย่างครบถ้วน ตั้งแต่วันที่ 1 มิถุนายน 2565 ทั้งนี้ ท่านสามารถศึกษารายละเอียดประกาศความเป็นส่วนตัว (Privacy Notice) สำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหารสัญญา ได้ที่ https://www.egat.co.th/privacy-notice-procurement.html หรือที่ OR Code ด้านล่าง



การขีดฆ่าข้อมลส่วนบคคลอ่อนไหว

กฟผ. มีประกาศความเป็นส่วนตัว (Privacy Notice) สำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหาร สัญญา เพื่อใช้ในการเก็บรวบรวม ใช้ หรือเปิดเผย ข้อมูลส่วนบุคคล แต่ไม่เก็บข้อมูลส่วนบุคคลอ่อนไหว หากเอกสารของท่านที่ต้องส่งมอบให้ กฟผ. มีข้อมูลส่วนบุคคลอ่อนไหวตามที่ถูกบัญญัติไว้ในมาตรา 26 ของ PDPA ดังนี้ เชื้อชาติ เผ่าพันธุ์ ความคิดเห็นทางการเมือง ความเชื่อในลัทธิ ศาสนาหรือปรัชญา พฤติกรรมทางเพศ ประวัติอาชญากรรม ข้อมูลสุขภาพ ความพิการ ข้อมูลสหภาพแรงงาน ข้อมูลพันธุกรรม ข้อมูลชีวภาพ หรือ ข้อมูลอื่นใด ซึ่งกระทบต่อเจ้าของข้อมูลส่วนบุคคลในทำนองเดียวกันรวมอยู่ด้วย ขอให้ท่านขีดฆ่า หรือปกปิด ข้อมูลดังกล่าว ก่อนส่งมอบให้แก่ กฟผ.

Notice to Bidder

Subject: Online Payment for Purchase of Bidding Documents

Please be informed of the online payment for purchase of bidding documents as follows:

- 1) Download the Registration Form and fill out all necessary information <u>by typing</u>. (Complete data is required.)
- 2) Payment shall be made by bank transfer or telegraphic transfer to EGAT's account no. 109-6-01958-2 (swift code: KRTHTHBK), Krung Thai Bank Public Company Limited, Bangkruai Branch, Nonthaburi.
 - All bank charges and fees incurred by the payment of bidding documents shall be under the buyer's responsibility.
- 3) Submit the fill-out Registration Form and the proof of payment from 1) to the email address of the in-charge officer and procurement.tse@egat.co.th in the CC. before 15.00 hrs. Bangkok Standard Time.
- 4) After the payment has been verified for approximately 3 working days, the in-charge officer will send the link for downloading the bidding documents together with the receipt to the purchaser's email address in the Registration Form.

Registration Form

Invitation to Bid No. TS12-CR-30

Supply of Control and Protection Equipment

Transmission System Expansion Project No. 12

Available Duration for Purchasing: January 25, 2024 - February 23, 2024

Price of Bidding Documents: THB 1,000.-

Instructions

- 1) Fill out this Registration Form in English by typing. (Complete data is required.)
- 2) Payment shall be made by bank transfer or telegraphic transfer to EGAT's account no. 109-6-01958-2 (swift code: KRTHTHBK), Krung Thai Bank Public Company Limited, Bangkruai Branch, Nonthaburi.
- 3) Submit the filled-out Registration Form and the proof of payment to the in-charge officer via email (with cc. procurement.tse@egat.co.th) <u>before 15.00 hrs.</u> Bangkok Standard Time.
- 4) The in-charge officer will send the link for downloading the bidding documents together with the receipt to the purchaser's email address in the Registration Form, which will take approximately 3 working days.

purchaser's email add	dress in the Registration Form, which will ta	ake app	proximately 3 working days	·
For Purchaser				TAX ID :
No. Receipt N	0. :		Date :	
Bidder's Name				
Address				
				Country:
Name of Contact Perso	n:		Tel.	Mobile No.
Email Address :				
Local Representative				
Address				
				Tax ID:
Name of Contact Perso	n :		Tel.	Mobile No.
Email Address :				
For Procurement Office	er	Cha	ange of Bidder's Name	TAX ID:
Bidder's Letter No. :				Dated :
New Bidder's Name				
Address				
			Country:	
Name of Contact Perso	n :		Tel.	Mobile No.
Email Address :				
Contact Information of	In-charge Officer			
Name	Mr. Pasakorn Piyathamrongrat			
Email address	pasakorn.piy@egat.co.th			
Telephone No.	0 2436 0348			
Mobile No.	08 4008 3231			



Invitation to Bid No. TS12-CR-30

Supply of Control and Protection Equipment Transmission System Expansion Project No. 12

The Electricity Generating Authority of Thailand (EGAT) is calling for the subject Invitation to Bid to be financed by EGAT's fund.

Place of Delivery: Ex-works

Medium Cost (including Value Added Tax): THB 32,000,000.-

Eligibility of Bidders

- 1. The Bidder shall be a local manufacturer or provide such locally manufactured materials and/or equipment and shall not be named in the List of Work Abandoners published by the Permanent Secretary, Ministry of Finance, and/or in the Debarment List and/or in the List of Work Abandoners declared by EGAT.
- 2. The Bidder shall not be a Jointly Interested Bidder with other Bidders as from the date of EGAT's issuance of the Invitation, or shall not be a person who undertakes any action as an "Obstruction of Fair Price Competition" for this Invitation.
- 3. The Bidder shall not either be EGAT's consultant or involve in EGAT's consultancy company under this Invitation to Bid, or shall not have EGAT's personnel involved in his business as shareholder having voting right that can control his business, director, manager, officer, employee, agent, or consultant except those who are officially ordered by EGAT to act or participate therein.
- 4. The Bidder shall not be the person who is privileged or protected not to be taken any legal proceedings under Thai Court; Provided that such Bidder's government declares that such special privilege is waived.
- 5. The Bidder who is a joint venture or consortium shall carry out all the work under such formation from the time of bidding until the fulfillment of the Contract.

Availability of Bidding Documents

Bidding Documents will be available for online purchase during 8:00 hrs. to 15:00 hrs., Bangkok Standard Time, as from January 25, 2024 to February 23, 2024 at THB 1,000.- per copy, non-refundable.

Please find more details for online purchasing process at http://www4.egat.co.th/fprocurement/biddingeng/ or contact for further information at telephone no. 0 2436 0341 or procurement.tse@egat.co.th.

Delivery of Bids

Bids shall be submitted at Bidding Room, 1st Floor, Tor 082 Building during 9:30 hrs. to 10:00 hrs., Bangkok Standard Time, March 6, 2024 and will be opened publicly at 10:00 hrs.

ELECTRICITY GENERATING AUTHORITY OF THAILAND

January 25, 2024

(Miss Chattiya Chandhanayingyong)

Chattiya C.

Chief, International Procurement Department - Transmission Segment



ประกาศการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เรื่อง ประกวดราคาซื้อ เลขที่ TS12-CR-30

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) มีความประสงค์จะซื้อ Control and Protection Equipment สำหรับ โครงการขยายระบบส่งไฟฟ้าระยะที่ 12 โดยใช้งบประมาณ กฟผ.

สถานที่ส่งมอบ : หน้าโรงงานผู้ผลิต

ราคากลาง (รวมภาษีมูลค่าเพิ่ม) : 32,000,000.- บาท

คุณสมบัติของผู้เสนอราคา

- 1. ต้องเป็นนิติบุคคลผู้ผลิตพัสดุ หรือผู้มีอาชีพขายพัสดุที่ผลิตในประเทศไทยตามประกาศ และต้องไม่เป็นผู้ทิ้งงานซึ่งปลัดกระทรวงการคลัง ได้แจ้งเวียนชื่อไว้ หรือต้องไม่เป็นผู้ที่ กฟผ. ห้ามติดต่อหรือห้ามเข้าเสนอราคา หรือต้องไม่เป็นผู้ที่ได้รับผลของการสั่งให้นิติบุคคลหรือ บุคคลอื่นเป็นผู้ทิ้งงานตามคำสั่ง กฟผ.
- ต้องไม่เป็นผู้มีผลประโยชน์ร่วมกันกับผู้เสนอราคารายอื่น ณ วันประกาศประกวดราคาครั้งนี้เป็นต้นไป หรือต้องไม่เป็นผู้กระทำการ อันเป็นการขัดขวางการแข่งขันราคาอย่างเป็นธรรมในการดำเนินการประกวดราคาครั้งนี้
- 3. ต้องไม่เป็นที่ปรึกษาของ กฟผ. หรือมีส่วนร่วมในบริษัทที่ปรึกษาของ กฟผ. ในงานนี้ หรือต้องไม่มีผู้ปฏิบัติงาน กฟผ. เข้าไปมีส่วนร่วม ในกิจการของผู้เสนอราคา ไม่ว่าจะในฐานะผู้ถือหุ้นที่มีสิทธิควบคุมการจัดการ กรรมการ ผู้อำนวยการ ผู้จัดการ พนักงาน ลูกจ้าง ตัวแทน หรือที่ปรึกษา ยกเว้น ในกรณีที่ผู้ปฏิบัติงานได้รับคำสั่งอย่างเป็นทางการจาก กฟผ. ให้ไปปฏิบัติงานหรือเข้าร่วมในกิจการของผู้เสนอราคา
- ต้องไม่เป็นผู้ได้รับเอกสิทธิ์หรือความคุ้มกัน ซึ่งอาจปฏิเสธไม่ยอมขึ้นศาลไทย เว้นแต่รัฐบาลของผู้เสนอราคาได้มีคำสั่งให้สละสิทธิ์และ ความคุ้มกันเช่นว่านั้น
- 5. ผู้ประสงค์เข้าประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม (Joint Venture or Consortium) จะต้องดำเนินการ ทุกขั้นตอนของการประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม ตั้งแต่การเสนอราคาจนสิ้นสุดข้อผูกพันกับ กฟผ.

การขายเอกสารประกวดราคา

ผู้สนใจติดต่อซื้อเอกสารประกวดราคา ในราคาชุดละ 1,000.- บาท ในวันทำการระหว่างเวลา 08:00 น. ถึง 15:00 น. ตั้งแต่วันที่ 25 มกราคม 2567 ถึงวันที่ 23 กุมภาพันธ์ 2567 ทั้งนี้ สามารถดูรายละเอียดการซื้อเอกสารประกวดราคาได้ที่เว็บไซต์ http://www4.egat.co.th/fprocurement/biddingeng/ หรือสอบถามข้อมูลเพิ่มเติมได้ทางโทรศัพท์ หมายเลข 0 2436 0341 หรืออีเมล procurement.tse@evat.co.th

การยื่นซองประกวดราคา

กำหนดยื่นซองประกวดราคา ในวันที่ 6 มีนาคม 2567 เวลา 09:30 น. ถึง 10:00 น. และเปิดซองประกวดราคา เวลา 10:00 น. ณ ห้องประกวดราคา ชั้น 1 อาคารฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ ท.082 การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เชิงสะพานพระราม 7 จังหวัดนนทบุรี

ประกาศ ณ วันที่ 25 มกราคม 2567

(นางสาวฉัตติยา จันทนยิ่งยง)

Dande Fromin

หัวหน้ากองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง

ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง) ในการจัดซื้อจัดจ้างที่มิใช่งานก่อสร้าง

1. **ชื่อโครงการ** Bid No. TS12-CR-30 การจัดซื้อ Control and Protection Equipment โครงการขยายระบบส่งไฟฟ้าระยะที่ 12

/หน่วยงานเจ้าของโครงการ ฝ่ายแผนงานและโครงการระบบส่ง การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย

2. วงเงินงบประมาณที่ได้รับจัดสรร

โครงการขยายระบบส่งไฟฟ้าระยะที่ 12 งบประมาณ 60,000 ล้านบาท

- 3. วันที่กำหนดราคากลาง 14 ธันวาคม 2566 (วันที่ อวส. อนุมัติ) ราคารวมภาษีมูลค่าเพิ่มเป็นเงิน 32,000,000.00 บาท ราคา/หน่วย ตามเอกสารแนบ
- 4. แหล่งที่มาของราคากลาง หลักเกณฑ์การกำหนดราคากลางการจัดซื้อและจัดจ้างงานก่อสร้างระบบส่งไฟฟ้าของสายงานระบบส่ง
- 5. รายชื่อเจ้าหน้าที่ผู้กำหนดราคากลาง
 - 5.1 นางจุฬาพร ตามใจจิตร วศ.10 กวป-ส.

นางสาวกานต์ชนก ผู้อุดส่วห์

2 5 ม.ค. 2567

MEDUIM COST FOR BID NO.TS12-CR-30 SUMMARY OF BID PRICE

SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

		Supply of Equipment
		Local Supply
No.	Description	Ex-works Price
1,0,	Description	(excluding VAT)
		Baht
		Amount
1	Schedule 1:230 & 115 kV Control and Protection Equipment	29,933,644.00
	BID PRICE	Baht 29,933,644.00
		Baht
	VAT	2,095,355.08
		Baht
	SUMMARY OF MEDUIM COST	32,028,999.08
		Baht
	SUMMARY OF MEDUIM COST (ROUNED)	32,000,000.00

นางสาวกานต์ขนก ผู้อุดส่าห์ หรดสะน 2 5 ม.ค. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of I	
					Local S	Supply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
	2 doinprion	Diawing 140.7 Reference 140.	Qty.	Omi	(excludir	ig VAT)
					Ba	ht
					Unit Price	Amount
1-1	115 kV LINE PROTECTION (87L, 87L, 79, 1-BF, 1-DTT)	Panel No. 43R, to be installed at the existing control building Specification No. 1002 Dwg. Nos. PA2-E-1.2, PA2-E-2.2 SH.2, PA2-E-3.2 and TP-E-10.1				
			1	EA	2,002,412.00	2,002,412.00
	EGAT-PEA TELEPROTECTION PANEL (2-TELE,2-FTC AND ACCS)	Panel No. EGAT-PEA No.3 Tele-Protection, to be installed at the existing control building Specification Nos. 1002, SD-FOT-P22 and SD-COM-P02 Dwg. Nos. PA2-E-2.2 SH.2, DW-TPS-D01-111-05 sh.P1 and DW-CAB-D01-019-01 sh.P2-P3	1	EA	142,695.00	142,695.00
1-3	METERING PANEL (2 kWh&kVarh METERS)	Panel No. MP2, to be installed at the existing control building Specification No. 1002 Dwg. Nos. PA2-E-1.2, PA2-E-2.2 sh.2, TP-E-5.1 sh.1-2 and TP-E-10.21	1	EA	982,137.00	982,137.00

นางสาวกานต์ขนก ผู้อุตสำห์

2 5 N.A. 2567

นายประวัทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C2 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	. Description Drawing No. / Reference No.		***	Supply of E Local St Ex-works	upply	
item No.	Description	Drawing No. / Reference No.	Qty.	Unit	(excluding VAT) Baht	
					Unit Price	Amount
1-4	LOCKOUT RELAY (86, 10 contacts)	To be used as 86BF-712 (8NO&2NC with Flushmounted, high burden type), and be installed in the panel no. 41R				
		Specification No. 1002				
		Dwg. Nos. PA2-E-1.2, PA2-E-2.2 SH.2 and PA2-E-3.2	1	EA	30,853.00	30,853.00
1-5	LATCHING RELAY (4 contacts)	To be used as 81COCX (changeover contacts with din rail mounted socket), and be installed in the panel no. IP7-1 Specification No. 1002				·
		Dwg. Nos. TP-E-6.4 sh.1-2	1	EA	4,387.00	4,387.00
1-6	CUT OFF SWITCH, 8 CONTACTS (25CO, 79CO)	To be used as 79CO (spring return), and be installed in the panel no. 7C Specification No. 1002	-		.,007,00	.,507.00
		Dwg. Nos. TP-E-9.1	1	EA	2,183.00	2,183.00

พรงสาวกานต์ขนก ผู้อุดสำห์

2 5 J.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Supply of Equi Local Supp Ex-works Pr (excluding V Baht Unit Price 384.00 32,222.00 33,156.00 20,698.00	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
110111		Brawing 10.7 Release 10.	\ \Q\(\gamma_1\)		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-7	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows: - two (2) red colour for 79CO-IL and breaker				
		close status in the panel no. 7C				
		- one (1) green colour for breaker open status in				
		the panel no. 7C				
		Specification No. 1002		_		
1.0	WATE AND WAR TO ANGRESOED	m 1 1 11 11 11 11 1	3	EA	384.00	1,152.00
1-8	WATT AND VAR TRANSDUCER	To be installed in the existing panel no. 7C				
1.0	(W&VAR-TDR)	Specification No. 1002	1	EA	32,222.00	32,222.00
1-9	CURRENT TRANSDUCER (A-TDR 3	To be installed in the existing panel no. 7C				
	PH)	Specification No. 1002	1	EA	33,156.00	33,156.00
1-10	VOLTAGE TRANSDUCER (V-TDR 3	To be installed in the existing panel no. 7C				
	PH)	Specification No. 1002	1	EA	33,156.00	33,156.00
1-11	TEST SWITCH (FOR METERING)	To be installed in the existing panel no. 7C				
		Specification No. 1002	1	EA	20,698.00	20,698.00
1-12	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing panel no. 7C				
		Specification No. 1002	1	EA	2,116.00	2,116.00

นางสาวกานต์ขนก ผู้อุตส่วน์ พระส-น.

2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ตัลวบายการฝ่ายวิสากรรมระย

นายประวัทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works	Price
Teem 10.	Description	Drawing No. / Reference No.	Qty.		(excluding	g VAT)
					Bah	nt
					Unit Price	Amount
1-13	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel as follows:				
		- one (1) for TDR DC circuit in the panel no. 7C				
		- one (1) for 52bX DC circuit in the panel no. 7C				
		Specification No. 1002	2	EA	3,082.00	6,164.00
1-14	TRIPPING RELAY (94P, 94BU, 51X,	To be used as 52bX (at least 5 NO with din rail		LA	3,082.00	0,104.00
	79X)	mounted socket, high burden type) and be				
	1732)	installed in the panel no. 7C				
		Specification No. 1002	1	EA	22,848.00	22,848.00
1-15	DC UNDERVOLTAGE RELAY	To be installed in the existing panel no. 7C			22,010.00	22,010.00
	(27XB,27XR)	Specification No. 1002	1	EA	8,534.00	8,534.00
1-16	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22				,
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.2				
	Fiber Cable		1	EA	8,149.00	8,149.00
1-17	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-				
		202-02 sh.P9&P11 and DWFOT-D01-215-01				
		sh.P2	350	Meter	73.00	25,550.00
1-18	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
	Mayor 100 gg	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
110.45000	บากผู้สกับ น้อนสู้จะรู	202-02 sh.P9&P11	10	Meter	444.00	4,440.00

มางสาวกานตัชนก ผู้อุตส่าห์ พงคล-พ.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C5 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local Supply	
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works	Price
100111 110.	Bescription	Drawing 140.7 Reference 140.	Qty.		(excluding	g VAT)
					Bah	t
					Unit Price	Amount
1-19	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00
1-20	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	300	Meter	94.00	28,200.00
1-21	115 kV LINE PROTECTION (87L, 87L,	Panel No. 6R				
	79, 1-BF, 1-DTT)	Dwg.Nos. PRB-E-1, PRB-E-2 SH.1, PRB-E-3				
		and TP-E-10.1				
		Specification 1002	1	EA	2,002,412.00	2,002,412.00
1-22	CONTROL PANEL	Panel No. 1CA Dwg.Nos. PRB-E-1, PRB-E-2				
		SH.2, PRB-E-2.1, PRB-E-3 and TP-E-10.1 See				
		Bill of Material Panel 1 CA for details				
		Specification 1002	1	EA	254,148.00	254,148.00
1-23	EGAT-PEA TELEPROTECTION PANEL	Panel No. PEA-TELE1				, ,
	(2-TELE,2-FTC AND ACCS)	Specification Nos. 1002, SD-FOT-P22 and SD-				
		COM-P02				
1		Dwg. Nos.PRB-E-2 SH.1, DW-TPS-D01-111-05				
M	17 4 mg	sh.P1 and DW-CAB-D01-019-01 sh.P2-P3	1	EA	142,695.00	142,695.00

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นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C6 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	Equipment
					Local S	· · · · · · · · · · · · · · · · · ·
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
Tion 10.	Description	Diawing 100.7 Reference 110.	Qty.		(excludin	g VAT)
					Bal	ht
					Unit Price	Amount
1-24	WATT AND VAR TRANSDUCER (W&VAR-TDR)	To be installed in the existing Panel No. TDR1 Dwg.Nos. PRB-E-1, PRB-E-2 SH.1 Specification 1002	1	EA	32,222.00	32,222.00
	CURRENT TRANSDUCER (A-TDR 3 PH)	To be installed in the existing Panel No. TDR1 Dwg.Nos. PRB-E-1 Specification 1002				·
			1	EA	33,156.00	33,156.00
1-26	VOLTAGE TRANSDUCER (V-TDR 3 PH)	To be installed in the existing Panel No. TDR1 Dwg.Nos. PRB-E-1 Specification 1002				
			1	EA	33,156.00	33,156.00
1-27	TEST SWITCH (FOR METERING)	To be installed in the existing Panel as follow: One (1) for TDR Circuit Panel No. TDR1, Two (2) for Metering CircuitPanel No. MP1, Dwg.Nos. PRB-E-1, PRB-E-2 SH.1 Specification 1002	3	EA	20,698.00	62,094.00
1-28	kWh&kVARh METER(with installation racks)	To be installed in the existing Panel No. MP1 Dwg.Nos. PRB-E-1, PRB-E-2 SH.1				02,00 1100
	nemalis A.	Specification 1002	2	EA	383,691.00	767,382.00

นางสาวกานต์ขนก ผู้อุดสำห์

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

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MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local S	upply
Item No.	o. Description Drawing No. / Reference No. Qty.	Unit	Ex-work	s Price		
Tiom 110.	Bescription	Drawing 140.7 Reference 140.	Qty.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-29	LATCHING RELAY (8 contacts, 79COCX)	To be used as 79COCX and to be installed in the				
		existing Panel No. IP1 (F)				
		-Front socket type and can be installed with din				
		rail strip				
		Dwg.Nos. PRB-E-1				
		Specification 1002	1	EA	19,539.00	19,539.00
1-30	LATCHING RELAY (4 contacts)	To be used as 81COCX and to be installed in the				
		existing Panel No. IP1 (F)				
		-Front socket type and can be installed with din				
		rail strip				
		Dwg.Nos. PRB-E-1,				
		Specification 1002	1	EA	4,387.00	4,387.00
1-31	DC UNDERVOLTAGE RELAY	To be installed in the existing Panel MP1				
	(27XB,27XR)	Dwg.Nos. PRB-E-1, PRB-E-2 SH.1				
		Specification 1002	2	EA	8,534.00	17,068.00

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นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C8 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

				Supply of		Equipment
					Local S	Supply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
1,0,1	Description	Diawing 100.7 Reference 100.	(4).		(excludin	ng VAT)
					Ba	ht
					Unit Price	Amount
1-32	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed the existing Panel No. as follow - One (1) for TDR Circuit Panel No. TDR1 - Two (2) for Metering Circuit Panel No. MP1 Dwg.Nos. PRB-E-1 Specification 1002		E.	2 002 00	0.046.00
1 22	MCD 24 A DOLLE HOD DO GLIDBLY		3	EA	3,082.00	9,246.00
1-33	MCB, 3A, 2 POLE FOR DC SUPPLY	To be installed in the existing Panel No. MP1 Dwg.Nos PRB-E-1, PRB-E-2 SH.1 Specification 1002				
			2	EA	4,904.00	9,808.00
1-34	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing Panel No. as follow: -One (1) for TDR Circuit Panel No. TDR1 -Two (2) for Metering CircuitbPanel No. MP1 Dwg.NosPRB-E-1, PRB-E-2 SH.1 Specification 1002	3	EA	2,116.00	6,348.00
	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22			_,= = 3100	5,2 .0.00
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.1-2.				
	Fiber Cable Aa		1	EA	8,149.00	8,149.00

นางสาวกานค์ขนก ผู้อุตส่าห์ หางส-น.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C9 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local Supply	
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
1,01	Bescription	Drawing 140.7 Reference 140.	Qiy.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-36	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-				
		202-02 sh.P9&P11 and DWFOT-D01-215-01				
		sh.P2	145	Meter	73.00	10,585.00
1-37	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	15	Meter	444.00	6,660.00
1-38	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00
1-39	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				_
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	CLAMP	202 - 02 sh.P9&P11	130	Meter	94.00	12,220.00
1-40	TERMINAL BLOCK FOR CT CIRCUIT	To be used as CT Terminal and to be installed in				
		the existing Panel No. as follow:				
		Panel No.TDR1, Panel NO.MP1, Panel NO.2R				
		theSpecification 1002	50	EA	104.00	5,200.00

พางสาวกานต์ขนก ผู้อุดส่าห์ พางสาวกานต์ขนก ผู้อุดส่าห์

2 5 ม.ค. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local Supply Ex-works Price	
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit		
	2 computer	Diawing 140.7 Reference 140.	Qty.	Cilit	(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-41	115kV TO PEA PROT-	Panel No. 1AF/1AR, to be installed at the				
	87L,87L,79,1BF,DTT	existing control building				
		Specification No. 1002				
		Dwg. Nos. AN-E-1.1, AN-E-2, AN-E-3 and TP-				
		E-10.1 See Bill of Material Panel	1	EA	2,085,812.00	2,085,812.00
1-42	EGAT-PEA TELEPROTECTION PANEL	Panel No. EGAT-PEA No.1 Tele-Protection, to				_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	(2-TELE,2-FTC AND ACCS)	be installed at the existing control building				
		Specification Nos. 1002, SD-FOT-P22 and SD-			8	
		COM-P02				
		Dwg. Nos. AN-E-2, DW-TPS-D01-111-05 sh.P1				
		and DW-CAB-D01-019-01 sh.P1-P3	1	T7.4	1.42 (05.00	140 605 00
1-43	INTERPOSING PANEL TYPE IP1	Panel No IP2 Drawing Nos TD E 6 4 Sh 1 5 and	1	EA	142,695.00	142,695.00
1 45	INTERCOUNT ANEL THE HT	Panel No.IP2 Drawing Nos.TP-E-6.4 Sh.1-5 and TP-E-10.2	1	EA	642 647 00	(42 (47 00
1-44	kWh&kVARh METER(with installation	Supply as loose part, to be installed in the exising	1	EA	643,647.00	643,647.00
1 ''	racks)	Panel MP.				
	indico)					
		Specification No. 1002.	,	EA	202 (01 00	767.202.22
		Dwg Nos. TP-E-5.1 SH.1/2 and TP-E-5.1 SH.2/2	2	EA	383,691.00	767,382.00

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2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

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MEDUIM COST FOR BID NO.TS12-CR-30 Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT

TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description				Supply of E	Equipment
			Qty.		Local Supply Ex-works Price (excluding VAT)	
Item No.		Drawing No. / Reference No.		Unit		
100	Description		Qty.	Ont		
					Bal	ht
					Unit Price	Amount
1-45	DC UNDERVOLTAGE RELAY	Supply as loose part, to be installed in the exising				
	(27XB,27XR)	Panel MP.				
		Specification No. 1002				
		Dwg Nos. TP-E-5.1 SH.1/2	2	EA	8,534.00	17,068.00
1-46	TEST SWITCH (FOR METERING)	Supply as loose part, to be installed in the exising				
		Panel MP.				
		Specification No. 1002	2	EA	20,698.00	41,396.00
1-47	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing panel no. MP		L// 1	20,070.00	41,370.00
		Specification No. 1002	2	EA	2,116.00	4,232.00
1-48	MCB, 3A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel no. MP				1,402100
		Specification No. 1002	2	EA	4,904.00	9,808.00
1-49	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel no. MP				.,
		Specification No. 1002	2	EA	3,082.00	6,164.00
1-50	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22			·	
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.1-2.				
	Fiber Cable		1	EA	8,149.00	8,149.00
1-51	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.2, DW-FOT-D01-202-				
	122223 16 9/10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	02 sh.P9&P11 and DWFOT-D01-215-01 sh.P2	100	Meter	73.00	7,300.00

มางสาวภานต์ขนก ผู้อุตสำห์ หปอส-น.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

Z-5 J.A. 2567

- Project 1-C12 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of Equipment	
					Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works Price	
100111 110.					(excludin	g VAT)
					Bah	nt
					Unit Price	Amount
1-52	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
		202-02 sh.P9&P11	10	Meter	444.00	4,440.00
1-53	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	90	Meter	94.00	8,460.00
1-54	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00
1-55	115kV TO PEA PROT-	Supply as loose part, to be installed in the exising				
	87L,87L,79,1BF,DTT	Panel MP.				
		Specification No. 1002.				
		Dwg Nos. BDN-E-1, BDN-E-2, TP-E-5.1 sh.1-2				
		and TP-E-10.21	1	EA	2,085,812.00	2,085,812.00
1-56	EGAT-PEA TELEPROTECTION PANEL	Supply as loose part, to be installed in the exising				
	(2-TELE,2-FTC AND ACCS)	Panel MP				
		Specification No. 1002				
		Dwg Nos. TP-E-5.1 SH.1/2	1	EA	142,695.00	142,695.00
	kWh&kVARh METER(with installation	To be installed in the existing panel no. MP				
	racks) Mording	Specification No. 1002				
- 1	นางสาวกานต์ขนก ผู้อุดส่วห์		2	EA	383,691.00	767,382.00

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นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C13 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
				[Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works Price	
		Brawing 140.7 Reference 140.	Qiy.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-58	DC UNDERVOLTAGE RELAY	Supply as loose part, to be installed in the exising				
	(27XB,27XR)	Panel MP				
		Specification No. 1002				
		Dwg Nos. TP-E-5.1 SH.1/2	2	EA	8,534.00	17,068.00
1-59	TEST SWITCH (FOR METERING)	To be installed in the existing panel no. MP				
		Specification No. 1002	2	EA	20,698.00	41,396.00
1-60	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing panel no. MP				
		Specification No. 1002	3	EA	2,116.00	6,348.00
1-61	MCB, 3A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel no. MP				
		Specification No. 1002	3	EA	4,904.00	14,712.00
1-62	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel no. MP				
		Specification No. 1002	3	EA	3,082.00	9,246.00
1-63	LATCHING RELAY (4 contacts)	To be installed in the existing panel no. RTB				
		Specification No. 1002	1	EA	4,387.00	4,387.00
1-64	LATCHING RELAY (8 contacts, 79COCX)	To be installed in the existing panel no. RTB				
		Specification No. 1002	1	EA	19,539.00	19,539.00
1-65	INTERPOSING RELAY (CCX,CTX)	To be installed in the existing panel no. RTB				
	in a fel	Specification No. 1002	4	EA	2,990.00	11,960.00

~ ฟฟ√ก นางสาวกานต์ขนก ผู้อุตสำห์ หขอส-นุ.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

filename: TS12-CR-30.xlsx

- Project 1-C14 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of Ed	luipment
					Local Su	pply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works	Price
Tion No.	Description	Drawing No. / Reference No.	Qıy.	Onit	(excluding VAT)	
				[Bah	t
					Unit Price	Amount
1-66	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22				
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.1-2.				
	Fiber Cable		1	EA	8,149.00	8,149.00
1-67	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-				
		202-02 sh.P9&P11 and DWFOT-D01-215-01				
-		sh.P2	145	Meter	73.00	10,585.00
1-68	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	25	Meter	444.00	11,100.00
1-69	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00
1-70	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	150	Meter	94.00	14,100.00
1-71	115 kV LINE PROTECTION (87L, 87L,	Dwg. Nos. MCN-E-1.2, MCN-E-2.2 SH.2, MCN-				
	79, 1-BF, 1-DTT)	E-3.1 and TP-E-10.1				
	0000000		1	EA	2,002,412.00	2,002,412.00

๛ ถ ๙ ๙ ภ พางสาวถานต์ขนก ผู้อุตส่าห์ พางสาน

นายประวัทย์ เลิศโกวิทย์ ผู้อำนวยการผ่ายวิศวกรรมระบบล่ง 14 Dec 2023

- Project 1-C15 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
	Description				Local Supply	
Item No.		Drawing No. / Reference No.	Qty.	Unit	Ex-works Price	
	20011711011		Qty.	Onit	(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-72	TRANSDUCER PANEL	Panel TDR, to be installed at the existing control building (2 TS,1 V-TDR 3 PH,1 A-TDR 3 PH, 2 DC-TDR,2 W&Var-TDR) Specification No. 1002 Dwg. Nos. MCN-E-1.2, MCN-E-2.2 SH.2 and TP-E-10.2	1	EA	247,809.00	247,809.00
1-73	EGAT-PEA TELEPROTECTION PANEL (2-TELE,2-FTC AND ACCS)	Panel No. EGAT-PEA Tele-Protection, to be installed at the existing control building Specification Nos. 1002 and SD-FOT-P22 rev2 DW-TPS-D01-111-05 sh.P1 Dwg. Nos. MCN-E-2.2 SH.2	-	2.1	217,0001.00	217,005.00
			1	EA	142,695.00	142,695.00
1-74	kWh&kVARh METER(with installation racks)	To be installed in the existing panel MP1 as follows: Specification No. 1002 Dwg Nos.MCN-E-2.2 SH.2 and TP-E-10.2	2	EA	383,691.00	767,382.00
1-75	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the existing panel as follows: - two (2) for Metering circuit in the panel MP	_		303,071.00	707,302.00
	Madra 10 mars	- one (1) for 52bX DC circuit in the panel IP1 Specification No. 1002	3	EA	8,534.00	25,602.00

มางสาวกานต์ขนก ผู้อุตส่าห์ หางส-ห.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

2 5 J.A. 2567

- Project 1-C16 -

อวส.-อผค.

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty,	Unit	Ex-works Price	
	Description	Drawing 140.7 Reference 140.	Qiy.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-76	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel as follows:-				
		two (2) for Metering circuit in the panel MP- one				
		(1) for 52bX DC circuit in the panel IP1- one (1)				
		for Panel.TDR . Specification No. 1002	4	EA	3,082.00	12,328.00
1-77	INTERPOSING RELAY (CCX,CTX)	To be installed in the existing panel IP1(R) as				
		follows:- one (1) for CCX-700 (4contact) - one				
		(1) for CCX-709 (4 contact). Specification No.				
		1002 and TP-E-6.4 sh.1-2, TP-E-10.2	2	EA	2,990.00	5,980.00
1-78	LOCKOUT RELAY (86, 10 contacts)	To be used as 86B (8 NO, 2 NC with Flush-				,,,,,,,,,
	,	mounted, high burden type), and be installed in				
		the panel no. 4F/4R	1	EA	30,853.00	30,853.00
1-79	MARSHALLING PANEL FOR	Panel MPC, to be installed at the existing control				,
	CONTROL SYSTEM	building. Specification No. 1002 and TP-E-10.3				
				EA	234,886.00	234,886.00
1-80	TRIPPING RELAY (94P, 94BU, 51X,	To be used as 52bX (at least 5 NO with din rail			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	79X)	mounted socket, high burden type) and be				
		installed in the panel no. IP1				
	Acros de la como	Specification No. 1002	1	EA	22,848.00	22,848.00

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local Supply	
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
	2 to the priori	Blawing 1(0.7 Reference 1(0.	Qiy.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-81	TEST SWITCH (FOR METERING)	To be installed in the existing panel MP1				
		Specification No. 1002	2	EA	20,698.00	41,396.00
1-82	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22				
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.2.				
	Fiber Cable		1	EA	8,149.00	8,149.00
1-83	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.2, DW-FOT-D01-202-				
		02 sh.P9&P11 and DWFOT-D01-215-01 sh.P2	154	Meter	73.00	11,242.00
1-84	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
		202-02 sh.P9&P11	9	Meter	444.00	3,996.00
1-85	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	145	Meter	94.00	13,630.00
1-86	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

2 5 J.A. 2567

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
				Unit	Local Supply Ex-works Price	
Item No.	Description	Drawing No. / Reference No.	Qty.			
		Diaming 110.7 Telefolio 110.	\ \Q\cdot{\c		(excluding	g VAT)
					Bał	nt
					Unit Price	Amount
1-87	Multi-function Protective IED	To be installed in the existing panel as follows:				
	(87L,21BU,67/67N, 81, 27, 50BF, 79, 25,	- one (1) in the panel no. 202R.				
	51S/51SG)	- one (1) in the panel no. 203R.				
		1 A for current input.				
		Selectable 1 phase & 3 Phase tripping.				
		Specification No. 1002.				
		DWG. Nos. UB3-E-1.2, UB3-E-2.1 and UB3-E-				
		3.1				
1.00	DC 4 TO DE 4 THE EDD OF CONTOUR AND ADDRESS.		2	EA	583,237.00	1,166,474.00
1-88	EGAT-PEA TELEPROTECTION PANEL	Panel No. EGAT-PEA No.3 Tele-Protection, to				
	(2-TELE,2-FTC AND ACCS)	be installed at the existing control building				
		Specification Nos. 1002, SD-FOT-P22 and SD-				
		COM-P02				
		Dwg. Nos.UB3-E-2.1, DW-TPS-D01-111-05				
		sh.P1 and DW-CAB-D01-019-01 sh.P1-P3				
1.00	I AMOUNT OF THE		2	EA.	142,695.00	285,390.00
1-89	LATCHING RELAY (4 contacts)	To be used as 81COCX (changeover contacts				
		with din rail mounted socket), and be installed in				
	10 solding	the panel no. IP21.Specification No. 1002				
บว งสาว	กานต์ขนก ผู้อุดส่าห์	Dwg. Nos. TP-E-6.4 sh.1-2		_,	4.00=	
N 7 March	भेगेलात-पू.		2	EA	4,387.00	8,774.00

2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C19 -

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MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description				Supply of Equipment	
					Local Supply	
Item No.		Drawing No. / Reference No.	Qty.	Unit	Ex-works Price	
litem 140.	Bescription	Drawing No. / Reference No.	Qty.	Oint	(excludin	g VAT)
					Bal	ht
					Unit Price	Amount
1-90	TRIPPING RELAY (94P, 94BU, 51X, 79X)	To be used as 52bX (at least 5 NO with din rail mounted socket, high burden type) and be installed in the panel no. IP21 Specification No. 1002				
		Specification 1407	2	EA	22,848.00	45,696.00
1-91	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the panel no. IP21 Specification No. 1002	2	EA	3,082.00	6,164.00
1-92	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the existing panel no. IP21 Specification No. 1002		LA	3,062.00	0,104.00
			2	EA	8,534.00	17,068.00
1-93	CUT OFF SWITCH, 4 CONTACTS (50BFC0, SS, EPS, 43RCC)	To be used as 81CO, 27CO and be installed in the panel no. 202R and 203R. Specification No. 1002				
			4	EA	1,703.00	6,812.00
1-94	CUT OFF SWITCH, 10 CONTACTS (DTTCO, 87CO, 86ACO, 50/51SCO)	To be used as 87L2CO, and be installed in the panel no. 202R and 203R. Specification No. 1002				
			2	EA	2,388.00	4,776.00

^ ถ่งหั∧ หางสาวกานต์ขนก ผู้อุตส่าห์ หงษาส-น.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

2 5 **ม.ค. 2567** นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบ

- Project 1-C20 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	Description	Drawing No. / Reference No.	Qty.		Local S	
	Description	Drawing No. / Reference No.	Oty.		Excavada	D 1
	Description	Drawing 140. / Reference 140.	I Quy.	Unit	EX-WOLK	s Price
1.05					(excludin	ng VAT)
1.05					Ba	ht
1 0 0					Unit Price	Amount
	CUT OFF SWITCH, 20 CONTACTS (PTTCO, 85CO, 43CCS)	To be used as PTT1CO, PTT2CO, 21P2SG and be installed in the panel no. 202R and 203R. Specification No. 1002				
			6	EA	3,400.00	20,400.00
1-96	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows: - two (2) of red lamp in the panel no. 202R. - two (2) of red lamp in the panel no. 203R. Specification No. 1002				
			4	EA	384.00	1,536.00
	2-Way Joint Boxes with Accessories for OPGW and 36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.1-2.	1	EA	9 140 00	9 140 00
1-98	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22	1	EA	8,149.00	8,149.00
	Wewho	DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-202-02 sh.P9&P11 and DWFOT-D01-215-01 sh.P2	115	Meter	73.00	8,395.00

นางสาวกานต์ชนก ผู้อุดสำห์

2 5 N.A. 2567

มายประวิทย์ เลิศโกวิทย์ เว็จงาวของชายมลิสภาสราย

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง – 14 Dec 2023

- Project 1-C21 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description				Supply of E	quipment
		Drawing No. / Reference No.			Local Supply Ex-works Price	
Item No.			Qty.	Unit		
	2 escription	Diawing 140.7 Reference 140.	Qty.	Cint	(excluding	g VAT)
					Bah	ıt
					Unit Price	Amount
1-99	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11				
			15	Meter	444.00	6,660.00
1-100	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11				
			1	SET	6,497.00	6,497.00
1-101	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22.				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	100	Matan	04.00	0.400.00
1-102	Multi-function Protective IED	To be installed in the suiting and a Caller	100	Meter	94.00	9,400.00
1-102		To be installed in the existing panel as follows:-				
	(87L,21BU,67/67N, 81, 27, 50BF, 79, 25,	two (2) in the panel no. 6R two (2) in the panel				
	51S/51SG)	no. 9R.1 A for current input. Selectable 1 phase &				
		3 Phase tripping. Specification No. 1002.DWG.				
		Nos. LR-E-1 sh.1, LR-E-2.1 and LR-E-3.2.	_	77.4	500.00	
	An colored		4	EA	583,237.00	2,332,948.00

นางสาวกานต์ขนก ผู้อุตสำห์ พชงสาน

2 5 J.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C22 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
	Description		Qty.	Unit	Local Supply Ex-works Price	
Item No.		Drawing No. / Reference No.				
		Brawing 140.7 Reference 140.	201		(excluding	g VAT)
					Bah	ıt
					Unit Price	Amount
1-103	EGAT-PEA TELEPROTECTION PANEL (2-TELE,2-FTC AND ACCS)	Panel No. EGAT-PEA No.3 Tele-Protection, to be installed at the existing control building Specification Nos. 1002, SD-FOT-P22 and SD-COM-P02 Dwg. Nos. LR-E-2.1, DW-TPS-D01-111-05 sh.P1 and DW-CAB-D01-019-01 sh.P1-P3	2	EA	142,695.00	285,390.00
1-104	TRIPPING RELAY (94P, 94BU, 51X, 79X)	To be used as 52bX (at least 5 NO with din rail mounted socket, high burden type) and be installed in the panel no. IP1(F) Specification No. 1002	4	EA	22,848.00	·
1-105	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the panel no. IP1(F) Specification No. 1002	2	EA	3,082.00	91,392.00
1-106	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the panel no. IP1(F) Specification No. 1002	2	EA	8,534.00	17,068.00
1-107	CUT OFF SWITCH, 10 CONTACTS (DTTCO, 87CO, 86ACO, 50/51SCO)	To be used as 87L1CO, 87L2CO and be installed in the panel no. 6R and 9R.				.,
	Mingra 10	Specification No. 1002	4	EA	2,388.00	9,552.00

มางสาวกานต์ขนก ผู้อุตส่าห์

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

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MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description	Drawing No. / Reference No.	Qty.		Supply of Equipment Local Supply Ex-works Price (excluding VAT)	
Item No.						
				Unit		
100111 110.				Unit		
					Bal	nt
					Unit Price	Amount
1-108	CUT OFF SWITCH, 20 CONTACTS	To be used as PTT2CO and be installed in the				
	(PTTCO, 85CO, 43CCS)	panel no. 6R and 9R.				
		Specification No. 1002	2	EA	3,400.00	6 900 00
1-109	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows:		LA	3,400.00	6,800.00
1 107		- two (2) of red lamp in the panel no. 6R.				
		- two (2) of red lamp in the panel no. 9R.				
		Specification No. 1002.				
		Specification No. 1002.	4	EA	384.00	1,536.00
1-110	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22				
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.1-2.				
	Fiber Cable		1	EA_	8,149.00	8,149.00
1-111	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-				
		202-02 sh.P9&P11 and DWFOT-D01-215-01				
		sh.P2				
1-112	DICID STEEL CONDUCT	G 'G ' N GD TOM POO	162	Meter	73.00	11,826.00
1-112	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	Modern 10 gg	202-02 sh.P9&P11				
นางสาวเ	กานค์ขนก ผู้อุดล่าห์		12	Meter	444.00	5,328.00

পথলার-ম.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of Equipment Local Supply Ex-works Price (excluding VAT)								
Item No.													
												Bał	nt
												Unit Price	Amount
1-113	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22											
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-											
		202-02 sh.P9&P11											
			1	SET	6,497.00	6,497.00							
1-114	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22.											
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-											
	CLAMP	202-02 sh.P9&P11											
			150	Meter	94.00	14,100.00							
1-115	115 kV LINE PROTECTION (87L, 87L,	Panel No. 31R, to be installed at the existing											
	79, 1-BF, 1-DTT)	control building.											
		Specification No. 1002											
		Dwg. Nos. SA1-E-1, SA1-E-2.2, SA1-E-3 and											
		TP-E-10.1	1	EA	2,002,412.00	2,002,412.00							
1-116	EGAT-PEA TELEPROTECTION PANEL	Panel No. PEA-TELE1, to be installed at the	1	LA	2,002,412.00	2,002,412.00							
1 110	(2-TELE,2-FTC AND ACCS)	existing control building.											
	(2 TEBES,2-1 TO MIND MOOS)	Specification Nos. 1002, SD-FOT-P22 and SD-											
		COM-P02											
	Marsha	Dwg. Nos. SA1-E-2.2 SH.2, DW-TPS-D01-111-											
11785	าวกานต์ขนก ผู้อุดส่วห์	05 sh.P1, and DW-CAB-D01-019-01 sh.P2-P3											
	าวถานต์ชนก ผู้อุตส่าห์ ผู้อุตส่าห์ ผู้อุตส่าห์	55 Sh.1 1, and D W-CAD-D01-019-01 Sh.1 2-1 3	1	EA	142,695.00	142,695.00							

2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C25 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	Description	Drawing No. / Reference No.		Unit	Supply of Equipment Local Supply Ex-works Price	
			Trom I to:			
					Unit Price	Amount
1-117	METERING PANEL (2 kWh&kVarh METERS)	Panel No. MP1, to be installed at the existing control building. Specification No. 1002 Dwg. Nos. SA1-E-1, SA1-E-2.2, TP-E-5.1 sh.1-2				
		and TP-E-10.21	1	EA	982,137.00	982,137.00
1-118	LATCHING RELAY (8 contacts, 79COCX)	To be used as 79COCX (changeover contacts with din rail mounted socket), and be installed in the panel no. IR10 Specification No. 1002 Dwg. Nos. TP-E-6.4 sh.1-2	1	EA	19,539.00	19,539.00
1-119	LATCHING RELAY (4 contacts)	To be used as 81COCX (changeover contacts with din rail mounted socket), and be installed in the panel no. IR10 Specification No. 1002 Dwg. Nos. TP-E-6.4 sh.1-2	1	EA	4,387.00	4,387.00
1-120	KNIFE SWITCH ISOLATOR FOR	To be installed in the existing panel no. C	•	201.1	1,507.00	7,507.00
	BREAKER CONTROL UNIT	Specification No. 1002	1	EA	953.00	953.00
1-121	MCB, 6A, 1 POLE FOR DC SUPPLY	To be installed in the existing panel no. C			300.00	723.00
	Mandan Lang	Specification No. 1002	1	EA	2,237.00	2,237.00

มางสาวกานต์ชนก ผู้อุดสำห์ หาศส-ห

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C26 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

		·			Supply of Equipment Local Supply	
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
		Diawing 140.7 Reference 140.	Qty.	Onic	(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-122	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows:				
		- one (1) red colour for breaker close status in the				
		panel no. C				
		- one (1) green colour for breaker open status in				
		the panel no. C				
		Specification No. 1002	2	EA	384.00	768.00
1-123	WATT AND VAR TRANSDUCER	To be installed in the existing panel no. TDR4				
	(W&VAR-TDR)	Specification No. 1002	1	EA	32,222.00	32,222.00
1-124	CURRENT TRANSDUCER (A-TDR 3	To be installed in the existing panel no. TDR4				
	PH)	Specification No. 1002	1	EA	33,156.00	33,156.00
1-125	VOLTAGE TRANSDUCER (V-TDR 3	To be installed in the existing panel no. TDR4				
	PH)	Specification No. 1002	1	EA	33,156.00	33,156.00
1-126	TEST SWITCH (FOR METERING)	To be installed in the existing panel no. TDR4				
		Specification No. 1002	1	EA	20,698.00	20,698.00
1-127	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing panel no. TDR4				
		Specification No. 1002				
			1	EA	2,116.00	2,116.00

พางสาวกานต์ขนก ผู้อุดส่าห์ พางสาวกานต์ขนก ผู้อุดส่าห์

2 5 11.P. 2567

มายประวิทย์ เลิศโกวิทย์ ผู้อำนวชการฝ่ายวิศวกรรมระบบส่ง

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description	Drawing No. / Reference No.	Qty.		Supply of Equipment Local Supply Ex-works Price (excluding VAT)	
Item No.						
				Unit		
100111 1101				Onit		
					Bal	nt
					Unit Price	Amount
1-128	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel as follows: - one (1) for TDR DC circuit in the panel no. TDR4				
		- one (1) for 52bX DC circuit in the panel no. C Specification No. 1002	2	EA	3,082.00	6,164.00
1-129	TRIPPING RELAY (94P, 94BU, 51X, 79X)	To be used as 52bX (at least 5 NO with din rail mounted socket, high burden type) and be installed in the panel no. C Specification No. 1002				
1 100			1	EA	22,848.00	22,848.00
1-130	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the existing panel as follows: - two (2) for BKR. DC circuit in the panel no. C - one (1) for 52bX DC circuit in the panel no. C	3	EA	8,534.00	25,602.00
1-131	2-Way Joint Boxes with Accessories for	Specification No. SD-FOT-P22			-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	20,002.00
	OPGW and 36 Cores Non-metallic Optical	DWG Nos. TP-E-6.10 sh.1-2.				
	Fiber Cable		1	EA	8,149.00	8,149.00
1-132	36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22			3,2 3,3 0	0,115100
		DWG Nos. TP-E-6.10 sh.1-2, DW-FOT-D01-				
	Modern 10.	202-02 sh.P9&P11 and DWFOT-D01-215-01				
ามางสา	กานพ์ขนก ผู้อุดสำหั	sh.P2	146	Meter	73.00	10,658.00

2 5 N.A. 2567

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C28 -

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MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of Equipment	
					Local Supply	
					Ex-works Price	
110111 1101					(excluding VAT)	
					Bah	nt
					Unit Price	Amount
1-133	RIGID STEEL CONDUIT	Specification No. SD-FOT-P22				
		DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	5	Meter	444.00	2,220.00
1-134	6-WIRE CLEAT FOR COILING	Specification No. SD-FOT-P22				
	OPTICAL FIBER CABLE	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
		202-02 sh.P9&P11	1	SET	6,497.00	6,497.00
1-135	EFLEX AND/OR HDPE CONDUIT	Specification No. SD-FOT-P22				
	WITH HOT-DIP GALVANIZED STEEL	DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-				
	CLAMP	202-02 sh.P9&P11	140	Meter	94.00	13,160.00
1-136	230/115 kV TRANSFORMER	Panel No. 107R, to be installed at the existing				
	PROTECTION (4 RESTRAINS, 4-51, 1-	Relay building No.1. Specification No. 1002.				
	BF)	Dwg. Nos. UB2-E-1.2, UB2-E-2.3, UB2-E-3.2				
		and TP-E-10.1	1	EA	1,567,524.00	1,567,524.00
1-137	WATT AND VAR TRANSDUCER	To be installed in the existing panel No. TDR11				
	(W&VAR-TDR)	(Existing Relay building No.1)				
		Specification No. 1002	1	EA	32,222.00	32,222.00
1-138	CURRENT TRANSDUCER (A-TDR)	To be installed in the existing panel No. TDR11				
		(Existing Relay building No.1)				
	Marketon 10	Specification No. 1002	1	EA	23,891.00	23,891.00

มางสาวถานต์ชนก ผู้อุตส่าห์ หาศาสาน

> นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

2 5 11.A. 2567

- Project 1-C29 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local S	upply
Item No.	Description	Drawing No. / Reference No.	Otre	Unit	Ex-work	s Price
Ticin No.	Description	Drawing No. / Reference No.	Qty.	Oilit	(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-139	VOLTAGE TRANSDUCER (V-TDR)	To be installed in the existing panel Nos. TDR11				
	,	& TDR (Existing Relay building No.1 & Existing				
		Control building)				
		Specification No. 1002	2	EA	23,891.00	47,782.00
1-140	RESISTANCE TRANSDUCER (R-TDR)	To be installed in the existing panel No. TDR11				,
		(Existing Relay building No.1)				
		Specification No. 1002	1	EA	25,811.00	25,811.00
1-141	TEMPERATURE TRANSDUCER (T-	To be installed in the existing panel No. TDR11				
	TDR)	(Existing Relay building No.1)				
		Specification No. 1002	1	EA	30,366.00	30,366.00
1-142	MCB, 0.5A, 1 POLE FOR PT	To be installed in the existing panel Nos. TDR11,				
		TDR & IR (Existing Relay building No.1 &				
		Existing Control building)				
		Specification No. 1002	_	Б.	77000	225000
1 142	MOD A CA A POLE FOR PE		3	EA	750.00	2,250.00
1-143	MCB, 0.5A, 3 POLE FOR PT	To be installed in the existing panel No. TDR11				
		(Existing Relay building No.1)				
		Specification No. 1002	1	EA	2,116.00	2,116.00

^ จาฟน ^ หางสาวกานต์ขนก ผู้อุตส่าห์ พงคส-น.

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

2 5 N.A. 2567

- Project 1-C30 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
10011 140.	Description	Drawing No. / Reference No.	Qty.		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-144	MCB, 6A, 2 POLE FOR DC SUPPLY	To be installed in the existing panel Nos. TDR11				
		& TDR (Existing Relay building No.1 & Existing				
		Control building)				4
		Specification No. 1002	2	ĒΑ	3,082.00	6,164.00
1-145	TEST SWITCH (FOR METERING)	To be installed in the existing panel No. TDR11				
		(Existing Relay building No.1)				
		Specification No. 1002	11	EA	20,698.00	20,698.00
1-146	TERMINAL BLOCK FOR POWER	To be installed in the Marshalling panel and				-
	SUPPLY CIRCUIT	Transformer Control Cubicle for transformer				
		KT5A, replace with Existing terminal (Terminal				
		shall be sized for 1*35 sq.mm. for AC circuit of				
		Transformer)				
		Specification No. 1002	10		60.00	600.00
1-147	115 kV BREAKER FAILURE	Donol No. 17D. As he installed at the color	10	EA	68.00	680.00
1-147	l .	Panel No. 17R, to be installed at the existing				
	PROTECTION (1-BF)	control building				
		Specification No. 1002				
		Dwg. Nos. UB2-E-1.1, UB2-E-2.2, UB2-E-3.1	,	_,	200 102 00	000 100 00
	Augusta	and TP-E-10.1	I I	EA	388,123.00	388,123.00

วางสาวกานต์ขนก ผู้อุตสำห์

2 5 N.A. 2567

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

- Project 1-C31 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
					Local St	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-works	S Price
	2 seription	Drawing 140.7 Reference 140.	Qty.	Ont	(excluding	g VAT)
					Bah	nt
					Unit Price	Amount
1-148	LOCKOUT RELAY (86, 20 contacts)	To be used as 86BF-772 (14NO&6NC with				
		Flush-mounted, high burden type), and be				
		installed in the panel no. 13R (Existing Control				
		building)				
		Specification No. 1002				
		Dwg. Nos. UB2-E-1.1, UB2-E-2.2 and UB2-E-3.1	1	EA	49,134.00	49,134.00
1-149	PUSH BUTTON	To be used as 86BFPB-772, and be installed in				
		the panel no. 13R (Existing Control building)				
		Specification No. 1002				
		Dwg. Nos. UB2-E-1.1, UB2-E-2.2 and UB2-E-3.1				
1 150			1	EA	400.00	400.00
1-150	INTERPOSING RELAY (CCX,CTX)	To be used as CCX, CTX & SCOCX (4 NO				
		contacts with din rail mounted socket), and be				
		installed in the panel no. IR (Existing Control				
		building)				
		Specification No. 1002				
1-151	WHITE CHITCH IGOLATOR FOR	Dwg. Nos. TP-E-6.4 sh.1-2	4	EA	2,990.00	11,960.00
	KNIFE SWITCH ISOLATOR FOR	To be installed in the existing panel No. 5C				
	BREAKER CONTROL UNIT	(Existing Control building)				
	Mariano la fa	Specification No. 1002	1	EA	953.00	953.00

นางสาวกานต์ขนก ผู้อุตสำห์ นางส-น

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C32 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

					Supply of E	quipment
				[Local S	upply
Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Ex-work	s Price
	2 computer	Brawing No. / Reference No.	Q (3).		(excludin	g VAT)
					Bal	nt
					Unit Price	Amount
1-152	MCB, 6A, 1 POLE FOR DC SUPPLY	To be installed in the existing panel No. 5C				
		(Existing Control building)				
		Specification No. 1002	1	EA	2,237.00	2,237.00
1-153	BREAKER CONTROL SWITCH (CS)	To be used as control switch (spring return), and				
		be installed in the panel no. 5C (Existing Control				
		building)				
		Specification No. 1002				
		Dwg. Nos. UB2-E-1.1, UB2-E-2.1 and TP-E-9.1	1	EA	5,160.00	5,160.00
1-154	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows:				
		- one (1) red colour for breaker close status in the				
		panel no. 5C (Existing Control building)				×
		- one (1) green colour for breaker open status in				
		the panel no. 5C (Existing Control building)				
1.155	DC IDIDEDVOLET CE DEL TY	Specification No. 1002	2	EA	384.00	768.00
1-155	DC UNDERVOLTAGE RELAY	To be installed in the existing panel No. 5C				
	(27XB,27XR)	(Existing Control building)		_		
		Specification No. 1002	2	L EA	8,534.00	17,068.00

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2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C33 -

MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1: 230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of E Local S Ex-works (excluding Bak	upply s Price g VAT)
					Unit Price	Amount
	CUT OFF SWITCH, 4 CONTACTS (50BFC0, SS, EPS, 43RCC)	To be used as sync switch, and be installed in the panel no. 5C (Existing Control building). Specification No. 1002. Dwg. Nos. UB2-E-1.1, UB2-E-2.1 and TP-E-9.1	1	EA	1,703.00	1,703.00
1-157	LL	To be installed in the existing panel No. 5C (Existing Control building). Specification No. 1002. Dwg. Nos. UB2-E-1.1 and UB2-E-2.1	1	EA	1,890.00	1,890.00
	Multi-function Protective IED (87L,21BU,67/67N, 81, 27, 50BF, 79, 25, 51S/51SG)	Supply as spare part.(For Primary Protection)sameas item 1-1 (5 A) Specification No. 1002.	1	EA	583,237.00	583,237.00
1-159	Multi-function Protective IED (87L,21BU,67/67N, 81, 27, 50BF, 79, 25, 51S/51SG)	Supply as spare part. (For Primary Protection)same as item 1-1 (5 A) Specification No. 1002.	1	EA	583,237.00	583,237.00

^ พา่งผ่า∧ นางสาวถานต์ชนก ผู้อุตสำห์ หชศส-น.

2 5 N.A. 2567

นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

- Project 1-C34 -

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MEDUIM COST FOR BID NO.TS12-CR-30

Schedule 1:230 & 115 kV Control and Protection Equipment SUPPLY OF CONTROL AND PROTECTION EQUIPMENT TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

				Supply of F	quinmont
Description	Drawing No. / Reference No.	Qty.	Unit		
				, ,	· / /
				Unit Price	Amount
Multi-function Protective IED	Supply as spare part. (For Primary				
(87L,21BU,67/67N, 81, 27, 50BF, 79, 25,	1				
51S/51SG)	, , ,	1	EA	583,237.00	583,237.00
AUTO RECLOSING RELAY (79)		1	EA		192,335.00
BREAKER FAILURE RELAY	Supply as spare part. Specification No. 1002.				,
(50BF+62BF)		1	EA	154,304.00	154,304.00
TRANSFORMER DIFFERENTIAL	Supply as spare part. Specification No. 1002.				
RELAY (87K, 4 restraint windings)		1	EA	342,119.00	342,119.00
TRANSFORMER OVERCURRENT	Supply as spare part. Specification No. 1002.				
RELAY (51T/51TG,					
51L/51LG,51/51G,51S/51SG,51C/51CG)		1	EA	143,308.00	143,308.00
		l		Baht	
Total I	tring for Schodule 1				29,933,644.00
10tai r	rice for Schedule I				
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นายประวิทย์ เลิศโกวิทย์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง 14 Dec 2023

Important Information

for

Invitation to Bid No. TS12-CR-30

The purpose of this section is to inform the Bidders to **carefully study** the details of the revised terms and conditions in the bidding documents. The following provisions have been **recently revised** as stated hereunder:

Additional Regulation

Information to be submitted with Bid as required in Item 3.2 has been revised.

The following paragraph in Remarks Item 4. of page 11 of Additional Regulation has been deleted:-

"In case that any Major Shareholder(s) of the Bidder is (are) juristic person(s), and such juristic person(s) has (have) Major Shareholder(s) who is (are) juristic person(s), the Bidder shall submit the list of the Major Shareholder(s)/ the Names of Manager/ Managing Partner/ Managing Director/ Executive/ Person Who Is Authorized to Manage the Business/ Partner/ Partner with Unlimited Liability/ of such juristic person(s) as per page 10-11 of this Additional Regulation. The requirement of submission of list of the Major Shareholder(s)/ the Names of Manager/ Managing Partner/ Managing Director/ Executive/ Person Who Is Authorized to Manage the Business/ Partner/ Partner with Unlimited Liability/ of such juristic person(s) shall apply to 2 tiers of Major Shareholder(s) who is(are) juristic person(s)."

Article B-3. Bid Security

Terms and conditions regarding the forms of bid security have been revised.

Article B-12. Evaluation and Comparison of Bids

The calculated insurance premium to be used for evaluation and comparison purpose has been revised from 0.0629% to 0.0554%.

Article E-12. Performance Security and Specimen of Guarantee

Terms and conditions regarding the forms and the amount of performance security have been revised.

Article E-13. Inspection and Tests

Terms and conditions regarding inspection and tests have been revised.

Article E-14. Preparation for Shipment and/or Delivery

Details in the table of Instructions for Packaging at the end of Section E have been revised.

Article F- 11. Drawings and Documents to be Furnished by Contractor

Terms and conditions regarding EGAT's document management system have been added and the number of copies of the drawings and documents in Print and CD-ROM in the tables of Drawings and Documents to be Furnished by the Contractor (For Control and Protection Equipment) and of Drawings and Documents to be Furnished by the Contractor (For All Equipment except Control and Protection Equipment) at the end of section F have been revised.

Article F-12. Maintenance Security and Specimen of Maintenance Guarantee

Terms and conditions regarding the forms and the amount of maintenance security have been revised.

DATA SHEET

for

Invitation to Bid No. TS12-CR-30

This section consists of provisions that are specific to each procurement and supplement the information or requirements included in bidding documents.

Provisions not Applicable

All provisions and words related to Foreign Supply shall not apply to this Invitation to Bid.

Article B-3. Bid Security

The amount of bid security shall be THB 1,755,000.-.

Article B-4. Validity of Bids

The validity of the bid shall be for one hundred and fifty (150) Days from the date specified for opening of bid.

Article B-8. Information to be Submitted with Bid

Item m. is not applicable.

Article B-12. Evaluation and Comparison of Bids

The evaluation of bid prices shall be on schedule basis.

Article E-29. Failure to Meet Requirements and F-10. Maintenance Guarantee

Maintenance Guarantee Period

For all Equipment except Shunt Reactor, 200 MVA 230 kV and above Power Transformer and 500 kV System Voltage Equipment

The Contractor shall guarantee the proper functioning of the Work for a period of one (1) Year except the following Equipment the guarantee period of which shall be as follows:

<u>Equipment</u>	Period of Guarantee (Year)
- Fault Recording System	2
- Control and Protection System	2

- For Shunt Reactor, 200 MVA 230 kV and above Power Transformer and 500 kV System Voltage Equipment

The Contractor shall guarantee the proper functioning of Equipment for a period of <u>five</u> (5) Years.

Defective Equipment to be replaced with the whole new set

For GIS, Power Transformer, Power Circuit Breaker, Shunt Reactor, in case EGAT, at its sole discretion, requires the Contractor to replace any defected Equipment, the Contractor shall replace the Equipment with the whole new set as specified in Failure to Meet Requirements in section E and Maintenance Guarantee in section F.

Article F-9. Liquidated Damages for Late Delivery of Equipment

The Liquidated Damages shall be at the rate of one-tenth of one (0.10) per cent of the price of each complete item of Equipment not timely delivered for each Day of delay. This sum is payable regardless of the actual loss and/or damages incurred.

ELECTRICITY GENERATING AUTHORITY OF THAILAND

Nonthaburi

Thailand

INVITATION TO BID NO. TS12-CR-30

SUPPLY OF CONTROL AND PROTECTION EQUIPMENT

TRANSMISSION SYSTEM EXPANSION PROJECT NO. 12

A-1. Invitation

The Electricity Generating Authority of Thailand (EGAT) hereby invites sealed bids for furnishing and delivering of Control and Protection Equipment under Transmission System Expansion Project No. 12 hereinafter called Equipment in accordance with the terms, conditions and Specifications described in these Bidding Documents.

A-2. Eligibility of Bidders: General Requirements

All Bidders shall meet the following requirements; failure to so comply shall constitute sufficient ground for rejection.

- a. The Bidder shall be a partnership, firm or company, either alone or in joint venture or in consortium.
- b. The Bidder must have purchased the bidding documents from EGAT. For a joint venture or a consortium, only one (1) member of the joint venture or consortium is required to purchase the bidding documents.

In case the Bidder's name is not exactly the same as the purchaser's name, the purchaser shall notify EGAT of the name of the Bidder in writing prior to the bid opening time.

- c. The Bidder shall be well-established and maintain a permanent place of business. For a joint venture or consortium, all members of the joint venture or consortium are required to meet this qualification.
- d. The Bidder shall not be named in the List of Work Abandoners published by the Permanent Secretary, Ministry of Finance, and/or in the Debarment List and/or in the List of Work Abandoners declared by EGAT.

- e. For the Bidder who changes name before submitting the bid, his experience records in previous name shall be considered as the experience records of the Bidder.
- f. The Bidder shall not be a Jointly Interested Bidder with other Bidders as from the date of EGAT's issuance of this invitation to bid, or shall not be a person who undertakes any action as an "Obstruction of Fair Price Competition" as defined in Additional Regulation for this invitation.
- g. The Bidder shall not either be EGAT's consultant or involve in EGAT's consultancy company under this invitation, or have EGAT's personnel involved in his business as shareholder having voting right that can control his business, director, manager, officer, employee, agent or consultant except the ones who are officially ordered by EGAT to act or participate therein.
- h. The Bidder shall not be the person who is privileged or protected not to be taken any legal proceeding under Thai court; provided that such Bidder's government declares that such special privilege is waived.
- i. In case of a joint venture or consortium, the Bidder shall carry out all the provision of the Equipment and all Work under such formation from the time of bidding until the fulfillment of the Contract and the parties to the joint venture or the consortium shall accept joint and several liability for performing all obligations under the bid and the Contract.
- j. The Bidder shall not propose to supply the Equipment from the country under the state of war whether declared or not.
- k. The Bidder shall have adequate fund to meet financial obligations incidental to this Contract.
- 1. The Bidder shall submit documentary evidence established in accordance with Article B-8. <u>Information to be Submitted with Bid</u> to demonstrate the Bidder's sufficient eligibility to bid and qualification to perform the Contract.

A-3. Eligibility of Bidders: Technical Requirements

- I. All Bidders shall meet the following requirements; failure to so comply shall constitute sufficient ground for rejection.
 - a. The Bidder shall manufacture or supply the Equipment or Work as required under this invitation to bid.

- b. If the Bidder is a new company formed by acquisition of or merger with other companies or business units before submitting the Bid, the experience records of any of such previous companies or business units that meet the requirements set forth herein are acceptable as the experience records of the Bidder.
 - Reference records of either the parent or affiliated companies shall not be considered as the record of such Bidder.
- c. The Bidder shall have no just or proper claims pending against him with respect to breach in the performance of Contract on other similar works awarded by EGAT.
 - If the Bidder is a new company formed by acquisition of or merger with other companies or business units, the pending claim of any of such previous companies or business units shall be considered as pending claim of the Bidder.
- d. The Bidder shall have sufficient capacity to carry out the Work.
- e. The Bidder shall propose the Control and Protection Panels manufactured by the qualified manufacturers who shall fulfill the following requirements:
 - 1. Being well-established and maintaining a permanent place of business.
 - 2. Being local manufacturer.
 - 3. Having one of the following qualifications:
 - 3.1 Having a letter of acceptance for manufacturing of Control and Protection Boards and/or fabrication of the specific Equipment issued by EGAT within the scope specified therein.

OR

- 3.2 Being listed in EGAT ACCEPTED MANUFACTURER LIST FOR CONTROL AND PROTECTION PANEL (LOCAL MANUFACTURER) attached at the end of Section A. Invitation to Bid.
- 4. If the manufacturer is a new company formed by acquisition of or merger with other companies or business units, and any of such previous companies or other business units has the experience records that meet the requirements set forth herein, such experience records are acceptable as the experience records of the new company.

5. Having no just or proper claims pending against Equipment on other similar works.

In case the manufacturer is a new company formed by acquisition of or merger with other companies or business units, the pending claim of any of such previous companies or business units shall be considered as pending claim of the manufacturer.

f. The proposed protective relays shall be the products from the manufacturers as listed in EGAT ACCEPTED MANUFACTURER LIST FOR PROTECTIVE RELAY attached at the end of Section A. <u>Invitation to Bid</u> and shall be in compliance with the details specified in EGAT's Specifications. Type/Model of the proposed protective relays shall be as specified in EGAT ACCEPTED MULTIFUNCTION RELAY LIST attached at the end of Section A. <u>Invitation to Bid</u>.

A-4. Joint Venture or Consortium

In the event that the successful Bidder is a joint venture or a consortium formed of two or more companies, EGAT requires that the parties to the joint venture or the consortium accept joint and several liability for all obligations under the Contract.

A-5. Preparation and Delivery of Bids

Bids shall be prepared in accordance with the Instructions to Bidders contained in the Bidding Documents in one (1) original and three (3) hard copies in English, on the bid forms included for this purpose and shall be accompanied with a bid security as required under the Article pertaining to Bid Security in Section B. <u>Instructions to Bidders</u>. The bid security will be placed in a separate sealed envelope.

The envelope of the bids will be marked in capital letters in the lower left-hand corner as follows:

INVITATION TO BID NO. TS12-CR-30

SUPPLY OF CONTROL AND PROTECTION EQUIPMENT

TRANSMISSION SYSTEM EXPANSION PROJECT NO. 12

and shall be addressed and delivered to:

International Procurement Department - Transmission Segment Procurement and Inventory Management Division Electricity Generating Authority of Thailand Bangkruai, Nonthaburi 11130 Thailand

on or before 10:00 a.m., Bangkok Standard Time, see Tentative Schedule

If the envelope(s) is not sealed, marked and addressed as required above, EGAT will assume no responsibility for the bid misplacement or premature opening.

Bids will be opened publicly at *Bidding Room*, 1st floor, Tor 082 Building and at the time specified above.

Bids received after the time stipulated herein shall be rejected and returned unopened.

A-6. Availability of Bidding Documents

The Bidding Documents in CD-ROM are available for examination and can be obtained from EGAT at the hereunder address upon payment to EGAT, non-refundable, in the amount of USD - or Baht 1,000.- . These prices include the value added tax.

International Procurement Department - Transmission Segment Procurement and Inventory Management Division Electricity Generating Authority of Thailand Bangkruai, Nonthaburi 11130 Thailand

EGAT ACCEPTED MANUFACTURER LIST FOR CONTROL AND PROTECTION PANEL (LOCAL MANUFACTURER)

Description	Manufacturer	Designed by
500 kV Control and Protection Panel	Hitachi Energy (Thailand) Limited	Hitachi Energy (Thailand) Limited
	Precise System and Project Co., Ltd.	Precise System and Project Co., Ltd.
	U-tah Industry Limited Partnership	U-tah Industry Limited Partnership
	SCI Electric Public Company Limited	Siemens Limited
230 kV and below Control and	Hitachi Energy (Thailand) Limited	Hitachi Energy (Thailand) Limited
Protection Panel	C&T Metal Products Co., Ltd.	Easun Reyrolle Limited, India
	Precise System and Project Co., Ltd.	Precise System and Project Co., Ltd.
	U-tah Industry Limited Partnership	U-tah Industry Limited Partnership
	SCI Electric Public Company Limited	SCI Electric Public Company Limited
	Timpano Electrical Co., Ltd.	Timpano Electrical Co., Ltd.
	Mantra Switchgear Co., Ltd.	Siemens Limited

Notes

- 1. The procedures for being listed in EGAT ACCEPTED MANUFACTURER LIST FOR CONTROL AND PROTECTION PANEL (LOCAL MANUFACTURER) can be provided by Transmission System Planning and Project Division on request.
- 2. The control and protection panel shall be manufactured and designed by the manufacturer/company written in the same row.

J.

เอกสารควบคุม

รับรองสำนาโดย <u>ทพอ-ส. กสสุ-ส. อวส.</u>
ก่อนนำไปใช้งาน
ด้องครวจสอบ Revision ล่าสุด
ฝ้ายวิศวกรรมระบบส่ง กฟน.

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EGAT ACCEPTED MANUFACTURER LIST FOR PROTECTIVE RELAY

Description	Manufacturer / Country
Protective Relay	ABB / Sweden, Switzerland, USA
	GE / USA, Canada, Spain, UK
	SEL / USA
	Siemens / Germany, UK
	Toshiba / Japan, Vietnam
	Schneider Electric / France, UK
	ZIV / Spain
	INGETEAM / Spain
	NR Electric / China
	Mitsubishi / Japan
	Protecta / Hungary
	Arcteq / Finland
	Sifang / China

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Page 1 of 1 Sep 2023

เอกสารควบคุม

รับรองสำเนาโดย <u>พพอ-ส. กสส-ส. อวส.</u> ก่อนนำไปใช้งาน ด้องครวจสอบ Revision ล่าสุด ฝ้ายวิศวกรรมระบบส่ง กฟผ.

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	T35																																															
	T60 (*)																									K																						
	P746																	*	*	*	*	*	*	*	*	*																						* Must add 1 Relay for ground unit (More than 6 bays case)
	P740 (*)																																															
	P747																																															
	B90 (**)														T																								T									
	B30																			4																					*	*	*					* Only for breaker and a half, double bus double breaker or main and transfer bus arrangement
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เอกสารควบคุมรับรองสำหนาโคย <u>พพอ-ส. กสสุ-ส. อวส.</u>
ก่อนนำไปใช้งาน
ค้องครวจสอบ Revision ล่าสุค
ผ้ายวิศวกรรมระบบส่ง กฟผ.



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เอกสารควบคุม รับรองสำนาโดย <u>หพอ-ส. กสส-ส. อวส.</u> ก่อนนำไปใช้งาน ด้องครวจสอบ Revision ล่าสุด ผ้ายวิศวกรรมระบบส่ง กฟผ.

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EGAT Accepted Multifunction Relay List																															
Manufacturer	Model	87L 21P			21BU	25		79 6		67	51		50BF)EF	27/59	/59	81		24		87K/87R/87C		87B (H)		87B (L)	60C (V)		60C (I)		
		500 kV 230 kV 115 kV	500 kV 230 kV	115 kV	500 KV 230 KV 115 KV	500 kV 230 kV	115 kV 500 kV	230 kV	115 kV 500 kV	230 kV 115 kV	500 kV 230 kV	500 kV	230 KV 115 KV	500 kV	230 KV 115 KV	500 kV	115 kV	500 kV 230 kV	115 kV	500 KV	115 kV	500 kV 230 kV	115 kV	500 kV 230 kV	115 kV 500 kV	230 kV 115 kV	500 kV	250 KV 115 KV	500 kV	230 kV 115 kV	Remark
Ingeteam	EF-TD (*)																					* *	*				** :	** **	÷		* 3-restraint ** Only for open delta connection
	EF-MD (*)																										*	* *			* Only for open delta connection
	DA-PT (**)																										*	* *			* Only for open delta connection
NR Electric	PCS-931 (*)																														
	PCS-902 (*)																														
	PCS-978 (*)																														
	PCS-9611 (*)																													*	* Only 1 unbalance input current.
	PCS-978S (*)																														
	PCS-9611S (*)																													*	* Only 1 unbalance input current.
	PCS-915SC (*)																														
Mitsubishi	MRD-HA (**)																						*	Y							* 3-restraint
	MBP-H1A (**)																						V			* *					* In case of double bus single breaker arrangement, maximum 8 feeders with 1 bus coupler and 2 bus sections are allowed.
Protecta	DTIVA-E3																														
	DTVA-E1																														
	DTRV-E2																														
	DGYD																														

<u>Remarks</u>

- (*) Applicable to IEC 61850 for both station bus and process bus with the certification issued by the third party laboratory and specifying that the said relay conforms to "IEC 61850 edition 2 parts 6, 7-1, 7-2, 7-3, 7-4, and 8-1".
- (**) Applicable to IEC 61850 only for station bus with the certification issued by the third party laboratory and specifying that the said relay conforms to "IEC 61850 edition 2 parts 6, 7-1, 7-2, 7-3, 7-4, and 8-1".

<u>Notes</u>

- 1. The procedures for being listed in EGAT ACCEPTED MULTIFUNCTION RELAY LIST are specified in the EGAT's Pre-Qualification (PQ) process, of which the details can be provided by Transmission System Engineering Division on request.
- 2. If any types of relay in the list are planned to discontinue the manufacturing, the manufacturer or the representative is responsible for informing EGAT at least 1 year before the unavailable date.
- 3. The relays shall be configured to comply with all EGAT's required functions.

เอกสารควบคุมรับรองสำเนาโดย <u>หพอ-ส. กสสุ-ส. อวส.</u>
ก่อนนำไปใช้งาน
ต้องครวจสอบ Revision ล่าสุด
ฝ้ายวิศวกรรมระบบส่ง กฟผ.