

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 และการบริหารสัญญาของ กฟผ.

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) ได้ดำเนินการคุ้มครองข้อมูลส่วนบุคคลสำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหารสัญญา เพื่อให้เป็นไปตามพระราชบัญญัติคุ้มครองข้อมูลส่วนบุคคลของประเทศไทย 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 QR Code ด้านล่าง



การขิดฆ่าข้อมูลส่วนบุคคลอ่อนไหว

กฟผ. มีประกาศความเป็นส่วนตัว (Privacy Notice) สำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหารสัญญา เพื่อใช้ในการเก็บรวบรวม ใช้ หรือเปิดเผย ข้อมูลส่วนบุคคล แต่ไม่เก็บข้อมูลส่วนบุคคลอ่อนไหว หากเอกสารของท่านที่ต้องส่งมอบให้ กฟผ. มีข้อมูลส่วนบุคคลอ่อนไหวตามที่ถูกบัญญัติไว้ในมาตรา 26 ของ PDPA ดังนี้ เชื้อชาติ เผ่าพันธุ์ ความคิดเห็นทางการเมือง ความเชื่อในลัทธิ ศาสนาหรือปรัชญา พฤติกรรมทางเพศ ประวัติอาชญากรรม ข้อมูลสุขภาพ ความพิการ ข้อมูลสหภาพแรงงาน ข้อมูลพันธุกรรม ข้อมูลชีวภาพ หรือข้อมูลอื่นใด ซึ่งกระทบต่อเจ้าของข้อมูลส่วนบุคคลในทำนองเดียวกันรวมอยู่ด้วย ขอให้ท่านขิดฆ่า หรือปกปิดข้อมูลดังกล่าว 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 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.

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) before 15.00 hrs. 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.

For Purchaser		TAX ID :
No.	Receipt No. :	Date :
Bidder's Name		
Address		
		Country :
Name of Contact Person :		Tel.
		Mobile No.
Email Address :		
Local Representative		
Address		
		Tax ID :
Name of Contact Person :		Tel.
		Mobile No.
Email Address :		
For Procurement Officer		Change of Bidder's Name
TAX ID :		
Bidder's Letter No. :		Dated :
New Bidder's Name		
Address		
		Country :
Name of Contact Person :		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/procurement/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)

Chief, International Procurement Department - Transmission Segment



ประกาศการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เรื่อง ประกวดราคาซื้อ เลขที่ TS12-CR-30

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

สถานที่ส่งมอบ : หน้าโรงงานผู้ผลิต

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

คุณสมบัติของผู้เสนอราคา

1. ต้องเป็นนิติบุคคลผู้ผลิตพัสดุ หรือผู้มีอาชีพขายพัสดุที่ผลิตในประเทศไทยตามประกาศ และต้องไม่เป็นผู้ที่งานซึ่งปลัดกระทรวงการคลังได้แจ้งเวียนชื่อไว้ หรือต้องไม่เป็นผู้ที่ กฟผ. ห้ามติดต่อหรือห้ามเข้าเสนอราคา หรือต้องไม่เป็นผู้ที่ได้รับผลของการสั่งให้นิติบุคคลหรือบุคคลอื่นเป็นผู้ที่งานตามคำสั่ง กฟผ.
2. ต้องไม่เป็นผู้มีผลประโยชน์ร่วมกันกับผู้เสนอราคารายอื่น ณ วันประกาศประกวดราคาครั้งนี้เป็นต้นไป หรือต้องไม่เป็นผู้กระทำการอันเป็นการขัดขวางการแข่งขันราคาอย่างเป็นธรรมในการดำเนินการประกวดราคาครั้งนี้
3. ต้องไม่เป็นที่ปรึกษาของ กฟผ. หรือมีส่วนร่วมในบริษัทที่ปรึกษาของ กฟผ. ในงานนี้ หรือต้องไม่มีผู้ปฏิบัติงาน กฟผ. เข้าไปมีส่วนร่วมในกิจการของผู้เสนอราคา ไม่ว่าจะในฐานะผู้ถือหุ้นที่มีสิทธิควบคุมการจัดการ กรรมการ ผู้อำนวยการ ผู้จัดการ พนักงาน ลูกจ้าง ตัวแทนหรือที่ปรึกษา ยกเว้น ในกรณีที่ผู้ปฏิบัติงานได้รับคำสั่งอย่างเป็นทางการจาก กฟผ. ให้ไปปฏิบัติงานหรือเข้าร่วมในกิจการของผู้เสนอราคา
4. ต้องไม่เป็นผู้ได้รับเอกสิทธิ์หรือความคุ้มกัน ซึ่งอาจปฏิเสธไม่ยอมขึ้นศาลไทย เว้นแต่รัฐบาลของผู้เสนอราคาได้มีคำสั่งให้สละสิทธิ์และความคุ้มกันเช่นนั้น
5. ผู้ประสงค์เข้าประกวดราคาในนามของกิจการร่วมค้าหรือกิจการร่วม (Joint Venture or Consortium) จะต้องดำเนินการทุกขั้นตอนของการประกวดราคาในนามของกิจการร่วมค้าหรือกิจการร่วม ตั้งแต่การเสนอราคาจนถึงสุดท้ายผูกพันกับ 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@egat.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 เชียงสะพานพระราม 7 จังหวัดนนทบุรี

ประกาศ ณ วันที่ 25 มกราคม 2567

(นางสาวฉัตติยา จันทนยิ่งยง)

หัวหน้ากองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง

ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง)
ในการจัดซื้อจัดจ้างที่มีใช้งานก่อสร้าง

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 นางจุฬาร ตามใจจิตร วศ.10 กวป-ส.

นางสาวกานต์ชนก ผู้อดสู่วี
หจลส-น.
25 ม.ค. 2567

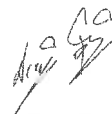


อวส.-อผค.

MEDIUM COST FOR BID NO.TS12-CR-30
SUMMARY OF BID PRICE
SUPPLY OF CONTROL AND PROTECTION EQUIPMENT
TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

No.	Description	Supply of Equipment
		Local Supply
		Ex-works Price (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
VAT		Baht 2,095,355.08
SUMMARY OF MEDIUM COST		Baht 32,028,999.08
SUMMARY OF MEDIUM COST (ROUNDED)		Baht 32,000,000.00

นางสาวกานต์ชนก ผู้ต่อสู้
 พชค.น.
 25 ม.ค. 2567


 นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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
1-2	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

นางสาวกานต์ชนก ผู้ดูแล
นางสาวกานต์ชนก

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023

- Project 1-C2 -

filename : TS12-CR-30.xlsx




อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-4	LOCKOUT RELAY (86, 10 contacts)	To be used as 86BF-712 (8NO&2NC with Flush-mounted, 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 Dwg. Nos. TP-E-9.1	1	EA	2,183.00	2,183.00

นางสาวกานต์ชนก ผู้ต่งสำห
 ทรศส-ท.
 25 ม.ค. 2567


 นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023



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

Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of Equipment	
					Local Supply	
					Ex-works Price (excluding VAT) Baht	
					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	3	EA	384.00	1,152.00
1-8	WATT AND VAR TRANSDUCER (W&VAR-TDR)	To be installed in the existing panel no. 7C Specification No. 1002	1	EA	32,222.00	32,222.00
1-9	CURRENT TRANSDUCER (A-TDR 3 PH)	To be installed in the existing panel no. 7C Specification No. 1002	1	EA	33,156.00	33,156.00
1-10	VOLTAGE TRANSDUCER (V-TDR 3 PH)	To be installed in the existing panel no. 7C 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

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นายประวิทย์ เลิศโกวิท
นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023



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MEDIUM 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 (excluding VAT) Baht	
					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, 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. 7C Specification No. 1002	1	EA	22,848.00	22,848.00
1-15	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the existing panel no. 7C Specification No. 1002	1	EA	8,534.00	8,534.00
1-16	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.2	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 DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	10	Meter	444.00	4,440.00

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25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023

- Project 1-C5 -

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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 (excluding VAT) Baht	
					Unit Price	Amount
1-19	6-WIRE CLEAT FOR COILING OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	300	Meter	94.00	28,200.00
1-21	115 kV LINE PROTECTION (87L, 87L, 79, 1-BF, 1-DTT)	Panel No. 6R 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 (2-TELE,2-FTC AND ACCS)	Panel No. PEA-TELE1 Specification Nos. 1002, SD-FOT-P22 and SD-COM-P02 Dwg. Nos.PRB-E-2 SH.1, DW-TPS-D01-111-05 sh.P1 and DW-CAB-D01-019-01 sh.P2-P3	1	EA	142,695.00	142,695.00

นางสาวกานต์ชนก ผู้อดสาร
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นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

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MEDIUM 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 (excluding VAT) Baht	
					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
1-25	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 Circuit Panel 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 Specification 1002	2	EA	383,691.00	767,382.00

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25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C7 -

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MEDIUM 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 (excluding VAT) Baht	
					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 (27XB,27XR)	To be installed in the existing Panel MP1 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



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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	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
1-35	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	8,149.00	8,149.00

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25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023

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MEDIUM 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 (excluding VAT) Baht	
					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 OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 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

M. S. S. S.
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25 ม.ค. 2567

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นายประวิทย์ เลิศโกวิทย์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-41	115kV TO PEA PROT-87L,87L,79,1BF,DTT	Panel No. 1AF/1AR, to be installed at the 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 (2-TELE,2-FTC AND ACCS)	Panel No. EGAT-PEA No.1 Tele-Protection, to be installed at the existing control building Specification Nos. 1002, SD-FOT-P22 and SD-COM-P02 Dwg. Nos. AN-E-2, DW-TPS-D01-111-05 sh.P1 and DW-CAB-D01-019-01 sh.P1-P3	1	EA	142,695.00	142,695.00
1-43	INTERPOSING PANEL TYPE IP1	Panel No.IP2 Drawing Nos.TP-E-6.4 Sh.1-5 and TP-E-10.2	1	EA	643,647.00	643,647.00
1-44	kWh&kVARh METER(with installation racks)	Supply as loose part, to be installed in the existing Panel MP. Specification No. 1002. 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

M. S. S.
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25 มี.ค. 2567

Dr. G. S.
นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-45	DC UNDERVOLTAGE RELAY (27XB,27XR)	Supply as loose part, to be installed in the existing 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 existing 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 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 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 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	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-D01-202-02 sh.P9&P11 and DWFOT-D01-215-01 sh.P2	100	Meter	73.00	7,300.00

นางสาวกานต์ชนก ผู้ดูแล
 ทรัพย์สิน-น.

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
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 14 Dec 2023



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MEDIUM 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 (excluding VAT) Baht	
					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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01-202-02 sh.P9&P11	90	Meter	94.00	8,460.00
1-54	6-WIRE CLEAT FOR COILING OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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-87L,87L,79,1BF,DTT	Supply as loose part, to be installed in the existing 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 (2-TELE,2-FTC AND ACCS)	Supply as loose part, to be installed in the existing Panel MP Specification No. 1002 Dwg Nos. TP-E-5.1 SH.1/2	1	EA	142,695.00	142,695.00
1-57	kWh&kVARh METER(with installation racks)	To be installed in the existing panel no. MP Specification No. 1002	2	EA	383,691.00	767,382.00

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 14 Dec 2023

- Project 1-C13 -

filename : TS12-CR-30.xlsx



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MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-58	DC UNDERVOLTAGE RELAY (27XB,27XR)	Supply as loose part, to be installed in the existing 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 Specification No. 1002	4	EA	2,990.00	11,960.00

M. S. S.
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14 Dec 2023



อวส.-อพล.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-66	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	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 OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	150	Meter	94.00	14,100.00
1-71	115 kV LINE PROTECTION (87L, 87L, 79, 1-BF, 1-DTT)	Dwg. Nos. MCN-E-1.2, MCN-E-2.2 SH.2, MCN-E-3.1 and TP-E-10.1	1	EA	2,002,412.00	2,002,412.00

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 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C15 -

filename : TS12-CR-30.xlsx



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MEDIUM 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 (excluding VAT) Baht	
					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	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 - one (1) for 52bX DC circuit in the panel IP1 Specification No. 1002	3	EA	8,534.00	25,602.00

นางสาวกานต์ชนก ผู้ตสำหรับ
 ทัศน-น.

25.ม.ค. 2567

นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C16 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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 CONTROL SYSTEM	Panel MPC, to be installed at the existing control building. Specification No. 1002 and TP-E-10.3	1	EA	234,886.00	234,886.00
1-80	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 Specification No. 1002	1	EA	22,848.00	22,848.00

นางสาวกานต์ชนก ผู้ต้วส่ว
 นพดล-น.

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C17 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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 OPGW and 36 Cores Non-metallic Optical Fiber Cable	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.2.	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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.2 and DW-FOT-D01- 202-02 sh.P9&P11	145	Meter	94.00	13,630.00
1-86	6-WIRE CLEAT FOR COILING OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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

นางสาวกานต์ชนก ผู้ดูแล
นางศิลป-น.
25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-87	Multi-function Protective IED (87L,21BU,67/67N, 81, 27, 50BF, 79, 25, 51S/51SG)	To be installed in the existing panel as follows: - one (1) in the panel no. 202R. - 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	2	EA	583,237.00	1,166,474.00
1-88	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.UB3-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
1-89	LATCHING RELAY (4 contacts)	To be used as 81COCX (changeover contacts with din rail mounted socket), and be installed in the panel no. IP21.Specification No. 1002 Dwg. Nos. TP-E-6.4 sh.1-2	2	EA	4,387.00	8,774.00

นางสาวกานต์ชนก ผู้คัสท์
 นายเจสัน-น.

นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

25 ม.ค. 2567

-Project 1-C19 -

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อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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	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	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

นางสาวกานต์ชนก ผู้ดูแล
 ทรัพย์สิน-น.

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C20 -

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อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-95	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
1-97	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	8,149.00	8,149.00
1-98	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	115	Meter	73.00	8,395.00

นางสาวกานต์ชนก ผู้ดูแล
 นพดล-น.
 25 มี.ค. 2567

นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C21 -

filename : TS12-CR-30.xlsx



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

Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of Equipment	
					Local Supply	
					Ex-works Price (excluding VAT) Baht	
					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 OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22. DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	100	Meter	94.00	9,400.00
1-102	Multi-function Protective IED (87L,21BU,67/67N, 81, 27, 50BF, 79, 25, 51S/51SG)	To be installed in the existing panel as follows:- two (2) in the panel no. 6R.- two (2) in the panel 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.	4	EA	583,237.00	2,332,948.00

นางสาวกานต์ชนก ผู้ต่อสู้
ทศล-น.

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023

- Project 1-C22 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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	91,392.00
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	6,164.00
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. Specification No. 1002	4	EA	2,388.00	9,552.00

นางสาวกานต์ชนก ผู้ประสานงาน
 พชคส-ท.
 25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C23 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-108	CUT OFF SWITCH, 20 CONTACTS (PTTCO, 85CO, 43CCS)	To be used as PTT2CO and be installed in the panel no. 6R and 9R. Specification No. 1002	2	EA	3,400.00	6,800.00
1-109	INDICATING LAMP (R,G,IL,LG)	To be installed in the existing panel as follows: - two (2) of red lamp in the panel no. 6R. - two (2) of red lamp in the panel no. 9R. Specification No. 1002.	4	EA	384.00	1,536.00
1-110	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	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	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- 202-02 sh.P9&P11	12	Meter	444.00	5,328.00

นางสาวกานต์ชนก ผู้ดูแล
พัสดุ-น.

นายประวิทย์ เลิศโกวิทย์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023

25 ม.ค. 2567

- Project 1-C24 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-113	6-WIRE CLEAT FOR COILING OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22. DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	150	Meter	94.00	14,100.00
1-115	115 kV LINE PROTECTION (87L, 87L, 79, 1-BF, 1-DTT)	Panel No. 31R, to be installed at the existing 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 (2-TELE,2-FTC AND ACCS)	Panel No. PEA-TELE1, to be installed at the existing control building. Specification Nos. 1002, SD-FOT-P22 and SD-COM-P02 Dwg. Nos. SA1-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

นางสาวกานต์ชนก ผู้ดูแล
 พัทธล-น.

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

25 ม.ค. 2567

- Project 1-C25 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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 BREAKER CONTROL UNIT	To be installed in the existing panel no. C 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 Specification No. 1002	1	EA	2,237.00	2,237.00

นางสาวกานต์ชนก ผู้ดูแล
 พงศสิทธิ์-น.

25 ม.ค. 2567

นายประวิทย์ เลิศโกวิท
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C26 -

filename : TS12-CR-30.xlsx



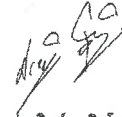
อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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 (W&VAR-TDR)	To be installed in the existing panel no. TDR4 Specification No. 1002	1	EA	32,222.00	32,222.00
1-124	CURRENT TRANSDUCER (A-TDR 3 PH)	To be installed in the existing panel no. TDR4 Specification No. 1002	1	EA	33,156.00	33,156.00
1-125	VOLTAGE TRANSDUCER (V-TDR 3 PH)	To be installed in the existing panel no. TDR4 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

นางสาวกานต์ชนก ผูุ้ตสารห์
ทชคส-น.

25 ม.ค. 2567


 นายประวิทย์ เลิศไกรวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

- Project 1-C27 -

filename : TS12-CR-30.xlsx



อวส.-อผค.

MEDIUM 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 (excluding VAT) Baht	
					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	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 Specification No. SD-FOT-P22	3	EA	8,534.00	25,602.00
1-131	2-Way Joint Boxes with Accessories for OPGW and 36 Cores Non-metallic Optical Fiber Cable	DWG Nos. TP-E-6.10 sh.1-2.	1	EA	8,149.00	8,149.00
1-132	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	146	Meter	73.00	10,658.00

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นายประวิทย์ เลิศโกวิทย์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023

25 ม.ค. 2567

- Project 1-C28 -

filename : TS12-CR-30.xlsx



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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 (excluding VAT) Baht	
					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 OPTICAL FIBER CABLE	Specification No. SD-FOT-P22 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 WITH HOT-DIP GALVANIZED STEEL CLAMP	Specification No. SD-FOT-P22 DWG Nos. TP-E-6.10 sh.1-2 and DW-FOT-D01-202-02 sh.P9&P11	140	Meter	94.00	13,160.00
1-136	230/115 kV TRANSFORMER PROTECTION (4 RESTRAINS, 4-51, 1- BF)	Panel No. 107R, to be installed at the existing Relay building No.1. Specification No. 1002. 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 (W&VAR-TDR)	To be installed in the existing panel No. TDR11 (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) Specification No. 1002	1	EA	23,891.00	23,891.00

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 ชาติสิน.*

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25 ม.ค. 2567

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MEDIUM 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 (excluding VAT) Baht	
					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-TDR)	To be installed in the existing panel No. TDR11 (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	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

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MEDIUM 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 (excluding VAT) Baht	
					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) Specification No. 1002	2	EA	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	1	EA	20,698.00	20,698.00
1-146	TERMINAL BLOCK FOR POWER SUPPLY CIRCUIT	To be installed in the Marshalling panel and 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	EA	68.00	680.00
1-147	115 kV BREAKER FAILURE PROTECTION (1-BF)	Panel No. 17R, to be installed at the existing control building Specification No. 1002 Dwg. Nos. UB2-E-1.1, UB2-E-2.2, UB2-E-3.1 and TP-E-10.1	1	EA	388,123.00	388,123.00

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 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

Item No.	Description	Drawing No. / Reference No.	Qty.	Unit	Supply of Equipment	
					Local Supply	
					Ex-works Price (excluding VAT) Baht	
					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	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 Dwg. Nos. TP-E-6.4 sh.1-2	4	EA	2,990.00	11,960.00
1-151	KNIFE SWITCH ISOLATOR FOR BREAKER CONTROL UNIT	To be installed in the existing panel No. 5C (Existing Control building) Specification No. 1002	1	EA	953.00	953.00

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 14 Dec 2023

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MEDIUM 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 (excluding VAT) Baht	
					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) Specification No. 1002	2	EA	384.00	768.00
1-155	DC UNDERVOLTAGE RELAY (27XB,27XR)	To be installed in the existing panel No. 5C (Existing Control building) Specification No. 1002	2	EA	8,534.00	17,068.00

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 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 14 Dec 2023



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MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-156	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
1-158	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

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25 ม.ค. 2567

[Signature]
นายประวิทย์ เลิศโกวิทย์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
14 Dec 2023



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MEDIUM 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 (excluding VAT) Baht	
					Unit Price	Amount
1-160	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 1-87 (1 A) Specification No. 1002.	1	EA	583,237.00	583,237.00
1-161	AUTO RECLOSING RELAY (79)	Supply as spare part. Specification No. 1002.	1	EA	192,335.00	192,335.00
1-162	BREAKER FAILURE RELAY (50BF+62BF)	Supply as spare part. Specification No. 1002.	1	EA	154,304.00	154,304.00
1-163	TRANSFORMER DIFFERENTIAL RELAY (87K, 4 restraint windings)	Supply as spare part. Specification No. 1002.	1	EA	342,119.00	342,119.00
1-164	TRANSFORMER OVERCURRENT RELAY (51T/51TG, 51L/51LG,51/51G,51S/51SG,51C/51CG)	Supply as spare part. Specification No. 1002.	1	EA	143,308.00	143,308.00
Total Price for Schedule 1					Baht 29,933,644.00	

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- Project 1-C35 -

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 14 Dec 2023

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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>	<u>Period of Guarantee (Year)</u>
- 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 five (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.

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.
- l. The Bidder shall submit documentary evidence established in accordance with Article B-8. Information to be Submitted with Bid 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. Invitation to Bid 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. Invitation to Bid.

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. Instructions to Bidders. 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
Bangkrui, 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.

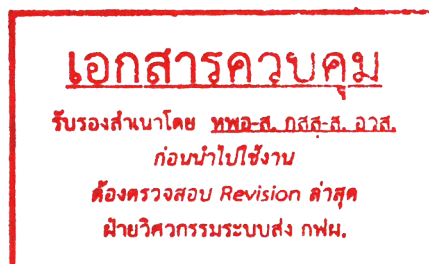
International Procurement Department - Transmission Segment
Procurement and Inventory Management Division
Electricity Generating Authority of Thailand
Bangkrui, Nonthaburi 11130
Thailand

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 Protection Panel	Hitachi Energy (Thailand) Limited	Hitachi Energy (Thailand) Limited
	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

- 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.
- The control and protection panel shall be manufactured and designed by the manufacturer/company written in the same row.



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

Bid No. EGAT-CR-30

เอกสารควบคุม
 รับรองสำเนาโดย ทพอ-ส.กสส-ส. อวส.
 ก่อนนำไปใช้งาน
 ต้องตรวจสอบ Revision ล่าสุด
 ฝ่ายวิศวกรรมระบบส่ง กฟผ.

