ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง) ในการจัดซื้อจัดจ้างที่มิใช่งานก่อสร้าง

ชื่อโครงการ เอกสารเลขที่ TS12-GIS-03
 งานจัดซื้อ 115 kV Gas Insulated Switchgear

โครงการขยายระบบส่งไฟฟ้าระยะที่ 12

/หน่วยงานเจ้าของโครงการ ฝ่ายแผนงานและโครงการระบบส่ง การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย

2. วงเงินงบประมาณที่ได้รับจัดสรร

โครงการขยายระบบส่งไฟฟ้าระยะที่ 12 งบประมาณ 60,000 ล้านบาท

- วันที่กำหนดราคากลาง 24 เมษายน 2562 (วันที่ อวส. อนุมัติ)
 ราคารวมภาษีมูลค่าเพิ่มและค่าใช้จ่ายอื่นๆ เป็นเงิน 14,500,000.00 บาท ราคา/หน่วย ตามเอกสารแนบ
- 4. **แหล่งที่มาของราคากลาง**หลักเกณฑ์การกำหนดราคากลางการจัดซื้อและจัดจ้างงานก่อสร้างระบบส่งไฟฟ้าของสายงานระบบส่ง
- 5. รายชื่อเจ้าหน้าที่ผู้กำหนดราคากลาง

นายเจริญจิตต์ ผจงวิริยาทร

วศ.7 หสก-ส. กวอ-ส.

<u>หมายเหตุ</u> ค่าใช้จ่ายอื่นๆ ได้แก่ ค่าใช้จ่ายที่ กฟผ. ต้องจ่ายตามวิธีการพิจารณาเปรียบเทียบราคาที่กำหนดไว้ ในเอกสารประกวดราคา เช่น อากรขาเข้า เป็นต้น

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MEDIUM COST FOR ENQUIRY NO. TS12-GIS-03

SUMMARY OF BID PRICE

SUPPLY OF 115 KV GAS INSULATED SWITCHGEAR

TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

	Description		Supply of Equipment	Supply of Equipment Supply of Equipment					
1			Foreign Supply	Local Supply	Foreign Currency	Local Currency			
No.		Сигтепсу	CFR Thai Port	Ex-works Price (excluding VAT) Baht		(excluding VAT) Baht			
			Amount	Amount	Amount	Amount			
1	Schedule 1: SP6 GAS INSULATED SWITCHGEAR	ТНВ	13,500,000.00						
		тнв	13,500,000.00	Baht		Baht			
	BID PRICE								
	OTHER EXPENSES	тнв	94,335.30	xxxxx	xxxx	xxxxx			
	VAT	ТНВ	951,603.47	Baht		Baht			
		тнв	14,545,938.77	Baht		Baht			
	SUMMARY OF BID PRICE								
TOTAL MEDIUM COST THB			14,545,938.77						
	TOTAL MEDIUM COST (ROUNDED)	тнв	14,500,000.00						

In case Bidder proposes price discount without specifying whether or not it includes Value Added Tax (VAT), EGAT will consider it as the price discount excluding VAT.

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MEDIUM COST FOR ENQUIRY NO. 7512-GIS-41 Schedule 1: 15% GAS INSULATED SWITCHGEAR SUPPLY OF 115 KV GAS INSULATED SWITCHGEAR TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

			1	make make a description	Supply of E	quipment		Supply of Equip					!
					Foreign			Local Supp		Foreign C	erreacy	Lecal Cur	resty
Description	Qiy.	Unit	Currency	POB Versel	Transportation	CFR Tha	i Port					(excluding Baht	
		Ĺ.		Unit Price	Unit Price	Unit Price	Amount	Unit Price	Amount	Unit Price	Аточес	Unit Price	Amount
123 kV 2000 A 40 kA Gas Inveltated Switchgear as per Ratings and Features RF [87541(IEC) and Drawing No. SH1-5-01/03,02/03, SH1-5-3-01/01, SH1-5-4-01/01				į	1	Ì			!				
123 kY 2080 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF 157541(EEC) and Drawing No. SH1-S-018/3,026/3, SH1-S-3-018/3, SH1-S-0-018/3, CM-in bus No.1 & 2)	ı	bass	тнв	13 <u>500,000.</u> 00		13 500 OHO,HT	13,500,000,00	:		XXXXX	XXXXX	XXXXX	XXXXX
123 kV 2000 A 40 kA Gas Insulated Switchgase as per Ratings and Foatures RF is7541(IEC) outdoor type (GIB) as per Drawing No. 5H1-S-01/03,02/03, 5H1-S-3-01/01, SH1-S-4-01/01	lot		тнв.	included	included	included	included			XXXXXX	XXXXX	XXXXX	XXXXX
Local control cubicle for 687541 for tiers 1-1 thru 1-3 (including interlocks requirement with existing bays and existing LCC Modification (if any))*	loi	,	тнв .	encluded	uncluded .	included	included		•	XXXXXX	XXXXXX	XXXXX	XXXXXX
ļ	ı	set	ТНВ	included	techoded	included ;	included		Ì	XXXXX	XXXXXX	xxxxxix	XXXXX
1	lot		, ,				1		Ì				XXXXX
	lot	1	THE	included	included	included ;	included	· i		XXXXX	XXXXX	XXXX	XXXXX
Return and benefits and tentralic proper and Ora independent									1		******	*****	XXXXX
Cost of Installation Supervisor for Rem no. 1-1 to 1-5	104							*****	******		*		*****
				•	•							<u> </u>	
Cost of Field test	lot	!						•		included	included	ļ	
Note: The SFG gas is a quantity equivalent to \$1.5% of the total equipment actual requirement labels be provided as follows: - 100% of SFG gas quantity shall be shipped in returned back to Contractor. - 15% of SFG gas quantity shall be shipped in non-returnable steel bottles which shall become the property of EGAT.									,	:			
			THB				13,500,000.00 P	aht	ſ		[1	Palut	1
Total Price for Schedule 1							į				Ì		
							į						1
	123 kV 2000 A 40 kA Gas learnined Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/R3,02/R3, SH1-S-3-01/R3, SH1-S-4-01/R3. 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/R3,02/R3, SH1-S-3-01/R1, SH1-S-4-01/R1 (Main bus No.1 & 2) 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/R3,02/R3, SH1-S-3-01/R1, SH1-S-4-01/R3 Local control cubicle for [57541 for liers 1-1 thru 1-3 (including interlocks requirement with existing bays and existing LCC Modufication (if any))* Sized Supporting Structure for [57541]* Accessories and special tools necessary (if any give details) Removable service platform and removable ladder for GIS inspection Cost of Installation Supervisor for liers no. 1-1 to 1-5 Cost of Pickd test supervisor as per IEC 62271-203 Cost of Fickd test Note: The SF6 gas is a quantity shall be shapped in retearnable atted bottles which shall be returned back to Constructor. - 15% of SF6 gas quantity shall be shapped in non-returnable steel bottles which shall become the property of EGAT.	123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Drawing No. SH1-S-0103,0203, SH1-S-3-0109, SH1-S-4-01001 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Drawing No. SH1-S-0103,0203, SH1-S-4-0101 (Main bus No.1 & 2) 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) auddoor type (QHB) as per Drawing No. SH1-S-0103,0203, SH1-S-3-0101, SH1-S-4-0101 Local control cubicle for IS7541 for Iters I-1 thru 1-3 (Inchasing interlocks requirement with existing bays and existing LCC Modification (if any))* Steet Supporting Structure for IS7541* Accessories and special tools necessary (if any give details) Removable service platform and removable ladder for GIS inspection Local of Pickd test supervisor for Item no. 1-1 to 1-5 Cost of Pickd test supervisor for Item no. 1-1 to 1-5 Cost of Pickd test supervisor as per IEC G2271-203 Local of Pickd test supervisor as per IEC G2271-203 Local of SPG gas in a quantity shall be shapped in retearable steel bottles which shall be returned back to Commenter. - 15% of SPG gas quantity shall be shapped in non-returnable steel bottles which shall become the property of EGAT. Total Price for Schedule 1	123 kV 2000 A 40 kA Gas learnined Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/03, 02/03, SH1-S-3-01/0), SH1-S-4-01/01 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/03, 02/03, SH1-S-3-01/01, SH1-S-4-01/01 (Main bus No.1 & 2) 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF [57541(IEC) and Drawing No. SH1-S-01/03, 02/03, SH1-S-3-01/01, SH1-S-4-01/01 Local control cubicle for [57541 for liters 1-1 thru 1-3 (including interlocks requirement with existing bays and existing LCC Modufication (if any))* Sized Supporting Structure for [57541] and support of the supporting structure for [57541] and Accessories and special tools necessary (if any give details) Removable service platform and removable ladder for GIS inspection Cost of Installation Supervisor for Item no. 1-1 to 1-5 Cost of Pickd test supervisor as per IEC 62271-203 Cost of Pickd test supervisor as per IEC 62271-203 Note: The SP6 gas is a quantity shall be shapped in retearnable steel bottles which shall be returned back to Constructor. - 15% of SP6 gas quantity shall be shapped in non-returnable steel bottles which shall become the property of EGAT. Total Price for Schedule 1	123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Drawing No. SH1-S-010/3,02/03, SH1-S-0-01/01, SH1-S-4-01/01 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Drawing No. SH1-S-01/03,02/03, SH1-S-01/01 (Main bus No.1 & 2) 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Drawing No. SH1-S-01/03,02/03, SH1-S-01/01 (Main bus No.1 & 2) 123 kV 2000 A 40 kA Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Oracle Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Oracle Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Oracle Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Oracle Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Oracle Gas Insulated Switchgear as per Ratings and Features RF IS7541(IEC) and Fire Gas Insulated Switchgear as per IS Insulated Switchgear as per IS Insulated Switchgear And Features RF IS7541(IEC) and Fire Base Insulated Switchgear Insulated Switc	Description City: Unit Currency Code Versel Unit Price Unit Pr	Description Obs. Unit Currency FOB Verrel Transportation to That Peri Uset Price Uset Price Transportation to That Peri Uset Price Use	Description Qty. Unit Currency POB Versel Transportation to The Pob Versel Transportation to The Pot Versel Transportation to The P	Description Qty. Unit Currency ROB Versal Trosportation Trospo	Description Description Qy Unit Coursey FOB Versal Transportation to This Pert (acadeling V Bible Unit Price Amogust Unit Price Unit Price	Description Opy Unit Conversy FOR Versil Transportation CPR That Pers Unit Price Amount Unit Price Amount Unit Price Amount Unit Price TYSB 13 500 000 100 11 3 500 000 000 13 500 000 100 13 500 000 000 13 500 000 13 500 000 000 13 500 000 000 13 500 000 000 13 500 000 15 500 000 1	Description Qry Use Cereary FOB Versal Transportation to TStal Pers Use Price Use Pri	Description Descr	Description Description Opt. Unit Commy FOB Verst Transportation to The Pers (exchange VAT) (e

* The design of supporting structures and LCC for Gos Insulated Switchgour shall be verified by Gas Insulated Switchgour manufacturer.

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MEDIUM COST FOR ENQUIRY NO. TS12-GIS-03

Service of Installation Supervisor (Schedule 1) SUPPLY OF 115 KV GAS INSULATED SWITCHGEAR

TRANSMISSION SYSTEM EXPANSION PROJECT NO.12

Item No.	Description	Qty.	Unit	Currency	Foreign (Currency	Local Currency (excluding VAT) Baht	
L					Unit Price	Amount	Unit Price	Amount
1-8	Cost of Installation Supervisor for Item no. 1-1 to 1-5		man day	тнв	included	included		
1-9	Cost of Field test supervisor as per IEC 62271-203		-					
i			man day	THB	included	included		
!			1				1	
			1				į	
,								
Note:								

1. The quoted total man-days for installation supervisor shall be the required number of days for complete installation, erection, field test and commissioning of all equipment as specified

2. In addition to the quoted total man-days above, EGAT will also pay the following :

a. Travelling time from and to Supervisor's home office as well as travelling time from and to the installation site including ten (10) working days of operation, if any, which will be

b. Airfares round trip economy class between the Supervisor's home office and Bangkok by the most expeditious and direct route.

3. Local transportation from and to installation site will be provided by EGAT.

4. If the working man-days are less than the quoted total man-days, the payment shall be on the basis of actual man-days.

5. For man-days exceeding the quoted total amount, no payment shall be made by EGAT. Any such additional man-days approved by EGAT shall be paid on the quoted man-days rate.

at the same rate as the cost quoted per man-day.

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Cost of Field Test (Schedule No. 1)

Description	Cost of Field Test Supervisor	Cost of Field Test		
	Currency:	Currency:		
Field test cost as per IEC 62271-203				
a) General construction check	Included	N/A		
b) Inspection of all pressure switch operation	Included	N/A		
c) Mechanical operation of the CB, DS and GS	Included	N/A		
d) Operation of all valves	Included	N/A		
e) Check of correct gas pressure in all sections	Included	N/A		
f) Air or hydraulic pressure check before and after specified co-operation of circuit breakers	Included	N/A		
g) Check for gas leakage in all sections and fluid leakages in all mechanisms	Included	N/A		
h) Insulating gas characteristics test	Included	N/A		
i) Correct timing of the circuit breakers	Included	N/A		
j) Insulation resistance tests	Included	N/A		
k) Dielectric test on main circuit				
- Power-frequency voltage test	Included			
- Partial Discharge tests	N/A	N/A		
1) Voltage tests of auxiliary and control circuits	Included	N/A		
m) Insulation power factor measurement	Included	N/A		
n) Main circuit resistance measurement	Included	N/A		
o) Test all instrument transformers	Included	N/A		
p) Check all porcelain	Included	N/A		
q) Operational tests of all components, control, alarm and protection circuits	Included	N/A		
r) Moisture content of SF ₆ gas in all sections	Included	N/A		
s) Test to show absence of possibility of dangerous circuiting currents in the enclosure	Included	N/A		
and other metal parts such as pipes and frame work etc.				

Note: 1. The on site testing and check, unless otherwise agreed upon, shall be performed in accordance with the IEC standards.

2. The quoted cost of field test shall include field test expenditure, transportation of test equipment (import and export by contractor) and other expenses relating to such field test.

3. The test reports shall be submitted within two weeks after the completion of test.

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