

Notice to Bidder

Subject : Online Payment for Purchase of Bidding Documents

Due to the outbreak of COVID-19 in Thailand, please be informed of the online payment for purchase of bidding documents as follows:

- 1) 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, Bangkrui Branch, Nonthaburi.

All bank charges and fees incurred by the payment of bidding documents shall be under the buyer's responsibility.

- 2) Download the Registration Form and fill out all necessary information by typing. (Complete data is required.)
- 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.

***** Please note that this online payment process is a temporary measure due to the COVID-19 outbreak. The online payment process will be available until further notice from EGAT *****

Registration Form

Invitation to Bid No. TIEC-L-03

Supply and Construction of Transmission Line 500 kV Tha Tako - Sam Khok (from Tha Tako to KM. 92)

Transmission System Improvement Project in Northeastern, Lower Northern,
Central Regions and Bangkok Area to Enhance System Security

Available Duration for Purchasing : September 22, 2021 - October 29, 2021

Price of Bidding Documents : USD 480.- or THB 15,000.-

Instructions

- 1) 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.
- 2) Fill out this Registration Form in English by typing. (Complete data is required.)
- 3) Submit the filled-out Registration Form and the proof of payment to the in-charge officer via email pirada.s@egat.co.th (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
Bidder's Letter No. :		TAX ID :
		Dated :
New Bidder's Name		
Address		
		Country :
Name of Contact Person :		Tel.
		Mobile No.
Email Address :		
Contact Information of In-charge Officer		
Name	Ms. Pirada Sitthithaworn	
Email address	pirada.s@egat.co.th	
Telephone No.	66 2436 3342	
Mobile No.	668 6887 9047	



Invitation to Bid No. TIEC-L-03

(Revision 3)

**Supply and Construction of Transmission Line 500 kV Tha Tako - Sam Khok
(from Tha Tako to KM. 92)**

**Transmission System Improvement Project in Northeastern, Lower Northern, Central Regions
and Bangkok Area to Enhance System Security
Two-Envelope (Pre-Qualification)**

The Electricity Generating Authority of Thailand (EGAT) is calling for the subject Invitation to Bid to be financed by EGAT's fund. The escalation factor (K) for price adjustment is applied to this Bid.

Place of Construction : from Tha Tako Substation to KM. 92 (approx. 92 kilometers)

Medium Cost (including Value Added Tax and other expenses) : THB 1,390,900,000.-

Eligibility of Bidders

1. The Bidder and the Equipment shall be named in EGAT Accepted List as specified in the bidding documents.
2. The Bidder shall be a juristic person who provides such services 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.
3. 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.
4. 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.
5. 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.
6. 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 in CD-ROM will be available for examination of Bidder's Qualifications and purchase during 08:00 hrs. to 15:00 hrs., Bangkok Standard Time, as from September 22, 2021 to October 29, 2021 at USD 480.- or THB 15,000.- per copy, non-refundable, at the following address :

International Procurement Department - Transmission Segment
(Room No. 301, 3rd Floor, Tor 082 Building)
Procurement and Inventory Management Division
Electricity Generating Authority of Thailand
Bangkrui, Nonthaburi 11130, Thailand
Telephone no. 66 2436 0342
E-mail : procurement.tse@egat.co.th

Please find more details and download Registration Form for purchasing Bidding Documents at <http://www4.egat.co.th/fprocurement/biddingeng/>.

Kamnika Dhaehalupat

Payment can be made by a certified cheque or money order payable to EGAT or by a telegraphic transfer to EGAT's current 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.

Bidding Documents in CD-ROM will be either airmailed or airfreighted to the buyer at EGAT's expense upon receipt of the relevant remittance. In case the buyer requires the Bidding Documents to be sent by Express Mail Service (EMS), the charge will be at the buyer's expense.

Delivery of Bids

Price and Technical Proposals Submission Date and Technical Proposals Opening Date is postponed from November 25, 2021 to January 21, 2022. Price and Technical Proposals shall be submitted at Bidding Room, 1st Floor, Tor 082 Building during 09:30 hrs. to 10:00 hrs., Bangkok Standard Time, and Technical Proposal will be opened publicly at 10:00 hrs.

ELECTRICITY GENERATING AUTHORITY OF THAILAND

December 29, 2021



(Mrs. Kannika Dhachalapat)

Chief, International Procurement Department - Transmission Segment



ประกาศการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย
เรื่อง ประกวดราคาจ้าง เลขที่ TIEC-L-03
ประกวดราคา 2 ของ (Pre-Qualification)

(ฉบับแก้ไข ครั้งที่ 3)

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) มีความประสงค์จะจัดหาและจ้างก่อสร้างสายส่งไฟฟ้าแรงสูง 500 KV ท่าตะโก - สามโคก (จากท่าตะโก ถึง กิโลเมตรที่ 92) สำหรับโครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคตะวันออกเฉียงเหนือ ภาคเหนือตอนล่าง ภาคกลาง และกรุงเทพมหานคร เพื่อเสริมความมั่นคงระบบไฟฟ้า โดยทำสัญญาแบบปรับราคาได้ (ค่า k) โดยใช้งบประมาณ กฟผ.

สถานที่ก่อสร้าง : จากสถานีไฟฟ้าแรงสูงท่าตะโก ถึง กิโลเมตรที่ 92 (ระยะทางประมาณ 92 กิโลเมตร)

ราคากลาง (รวมภาษีมูลค่าเพิ่มและค่าใช้จ่ายอื่นๆ) : 1,390,900,000.- บาท

คุณสมบัติของผู้เสนอราคา

1. ต้องเป็นผู้ประกอบการและพัสดุที่ผ่านการคัดเลือกคุณสมบัติเบื้องต้นตามบัญชีรายชื่อที่ระบุในเอกสารประกวดราคา
2. ต้องเป็นนิติบุคคลผู้มีอาชีพรับจ้างตามประกวดราคาจ้างดังกล่าว และต้องไม่เป็นผู้ที่ทำงานซึ่งปลัดกระทรวงการคลังได้แจ้งเวียนชื่อไว้ หรือต้องไม่เป็นผู้ที่ กฟผ. ห้ามติดต่อหรือห้ามเข้าเสนอราคา หรือต้องไม่เป็นผู้ที่ได้รับผลของการสั่งให้นิติบุคคลหรือบุคคลอื่น เป็นผู้ทำงานตามคำสั่ง กฟผ.
3. ต้องไม่เป็นผู้มีผลประโยชน์ร่วมกันกับผู้เสนอราคารายอื่น ณ วันประกาศประกวดราคาครั้งนี้เป็นต้นไป หรือต้องไม่เป็นผู้กระทำการ อันเป็นการขัดขวางการแข่งขันราคาอย่างเป็นธรรมในการดำเนินการประกวดราคาครั้งนี้
4. ต้องไม่เป็นที่ปรึกษาของ กฟผ. หรือมีส่วนร่วมในบริษัทที่ปรึกษาของ กฟผ. ในงานนี้ หรือต้องไม่มีผู้ปฏิบัติงาน กฟผ. เข้าไปมีส่วนร่วมในกิจการของผู้เสนอราคา ไม่ว่าจะในฐานะผู้ถือหุ้นที่มีสิทธิควบคุมการจัดการ กรรมการ ผู้อำนวยการ ผู้จัดการ พนักงาน ลูกจ้าง ตัวแทน หรือที่ปรึกษา ยกเว้น ในกรณีที่ผู้ปฏิบัติงานได้รับคำสั่งอย่างเป็นทางการจาก กฟผ. ให้ไปปฏิบัติงานหรือเข้าร่วมในกิจการของผู้เสนอราคา
5. ต้องไม่เป็นผู้ได้รับเอกสิทธิ์หรือความคุ้มกัน ซึ่งอาจปฏิเสธไม่ยอมขึ้นศาลไทย เว้นแต่รัฐบาลของผู้เสนอราคาได้มีคำสั่งให้สละสิทธิ์ และความคุ้มกันเช่นนั้น
6. ผู้ประสงค์เข้าประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม (Joint Venture or Consortium) จะต้องดำเนินการทุกขั้นตอนของการประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม ตั้งแต่การเสนอราคาจนสิ้นสุดข้อผูกพันกับ กฟผ.

ทบทวีภา ชินสุภักย์

การขายเอกสารประกวดราคา

ผู้สนใจติดต่อขอทราบรายละเอียด เพื่อตรวจสอบคุณสมบัติของผู้เสนอราคา และขอซื้อเอกสารประกวดราคา ในราคา ชุดละ 15,000.- บาท ได้ที่ แผนกจัดจ้างต่างประเทศสายงานระบบส่ง (ห้อง 301 ชั้น 3 อาคารฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ ท.082) กองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง ฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เชียงสะพานพระราม 7 จังหวัดนนทบุรี ในวันทำการระหว่างเวลา 08:00 น. ถึง 15:00 น. ตั้งแต่วันที่ 22 กันยายน 2564 ถึงวันที่ 29 ตุลาคม 2564 หรือสอบถามทางโทรศัพท์ หมายเลข 0 2436 0342 หรืออีเมล procurement.tse@egat.co.th ทั้งนี้ สามารถ download แบบฟอร์มลงทะเบียนผู้ซื้อเอกสารประกวดราคาได้ที่เว็บไซต์ <http://www4.egat.co.th/fprocurement/biddingeng/>

การยื่นซองประกวดราคา

กำหนดยื่นซองข้อเสนอด้านเทคนิคพร้อมซองราคา เลื่อนจากวันที่ 25 พฤศจิกายน 2564 เป็นวันที่ 21 มกราคม 2565 เวลา 09:30 น. ถึง 10:00 น. และเปิดซองข้อเสนอด้านเทคนิคเวลา 10:00 น. ณ ห้องประกวดราคา ชั้น 1 อาคารฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ ท.082 การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เชียงสะพานพระราม 7 จังหวัดนนทบุรี

ประกาศแก้ไข ณ วันที่ 29 ธันวาคม 2564

กมลทิศา ธาตุภักดิ์

(นางกรรณิกา ธาตุภักดิ์)

หัวหน้ากองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง

ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง)

ในการจัดซื้อจัดจ้างที่มีใช้งานก่อสร้าง

1. ชื่อโครงการ Bid No. TIEC-L-03

งานจัดหาและจ้างก่อสร้างสายส่ง 500 kV ท่าตะโก - สามโคก (จาก สฟ. ท่าตะโก ถึงกิโลเมตรที่ 92)
โครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคตะวันออกเฉียงเหนือ ภาคเหนือตอนล่าง ภาคกลาง
และกรุงเทพมหานคร เพื่อเสริมความมั่นคงระบบไฟฟ้า

/หน่วยงานเจ้าของโครงการ ฝ่ายแผนงานและโครงการระบบส่ง การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย

2. วงเงินงบประมาณที่ได้รับจัดสรร

โครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคตะวันออกเฉียงเหนือ ภาคเหนือตอนล่าง ภาคกลาง
และกรุงเทพมหานคร เพื่อเสริมความมั่นคงระบบไฟฟ้า งบประมาณ 94,040 ล้านบาท

3. วันที่กำหนดราคากลาง 31 พฤษภาคม 2564 (วันที่ รวส. อนุมัติ)

ราคารวมภาษีมูลค่าเพิ่มและค่าใช้จ่ายอื่นๆ เป็นเงิน 1,390,900,000.00 บาท ราคา/หน่วย ตามเอกสารแนบ

4. แหล่งที่มาของราคากลาง

หลักเกณฑ์การกำหนดราคากลางการจัดซื้อและจัดจ้างงานก่อสร้างระบบส่งไฟฟ้าของสายงานระบบส่ง

5. รายชื่อเจ้าหน้าที่ผู้กำหนดราคากลาง

5.1 นางสาวสุจรรยา กิรติรัตน์พฤษ์ กวสส-ส.

5.2 นางกุลวดี สุขแดง นสส-วส.

5.3 นางสาวสิรินยา ดันส์จจา วศ.8 หปส-ส. กวสส-ส.

หมายเหตุ ค่าใช้จ่ายอื่นๆ ได้แก่ ค่าใช้จ่ายที่ กฟผ. ต้องจ่ายตามวิธีการพิจารณาเปรียบเทียบราคาที่กำหนดไว้

ในเอกสารประกวดราคา เช่น อากรขาเข้า เป็นต้น

Oran

นางสาวอัสยา ช่างวิทยากร

หจตส-ท.


15 ก.ย. 2564

DETAILS OF THE MEDIUM COST FOR BID NO. TIEC-L-03

SCHEDULE 1 : 500 kV Tha Tako - Sam Khok (from Tha Tako - KM.92) 92 km.

Description	Total (Baht)
1A : PRELIMINARY WORK	10,482,800.00
1B : TOWER FOUNDATIONS	298,457,780.00
1C : TOWERS	705,588,580.00
1D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	158,272,300.00
1E : CONDUCTOR AND OVERHEAD GROUND WIRE	56,208,400.00
1F : LINE ACCESSORIES	24,646,300.00
1G : GROUNDING MATERIALS	5,792,380.00
1H : OPTICAL FIBER AND LINE ACCESSORIES	15,287,410.00
1K : LINE CONNECTION	30,000.00
1N : TEST OF EQUIPMENT	3,560,000.00
1O : SUPPLY OF SERVICE OF VEHICLES	5,200,000.00
1P : SUPPLY OF SPARE EQUIPMENT	16,345,715.87
Total for Schedule 1	1,299,871,665.87
Adjusted Price (Import Duty & Tax + Custom Clearance + VAT)	90,991,016.61
Total Price Schedule 1	1,390,862,682.48

MEDIUM COST OF BID NO. TIEC-L-03	1,390,900,000.00
---	-------------------------


4 ธ.ค. 64
(นางศุภรัตน์ ไชยพันธ์)
อวส.

อรน
นางสาวอาสยา ช่างวิทยากร
ทจตส-น.

15 ก.ย. 2564

Description	Currency	Supply of Equipment	Supply of Equipment	Foreign Currency	Local Currency	Local Transportation	Local Transportation, Construction and Installation
		Foreign Supply	Local Supply				
		CIF Thai Port	Ex-works Price (excluding VAT)				
		Amount	Amount				
1A : PRELIMINARY WORK							10,482,800.00
1B : TOWER FOUNDATIONS							298,457,780.00
1C : TOWERS			637,013,700.00				68,574,880.00
1D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	THB	91,738,900.00	66,533,400.00				
1E : CONDUCTOR AND OVERHEAD GROUND WIRE			2,801,400.00				53,407,000.00
1F : LINE ACCESSORIES			24,456,300.00				190,000.00
1G : GROUNDING MATERIALS			4,901,960.00				890,420.00

out
นางสาวอัสยา ช่างวิทยากร

[Signature]
นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

Description	Currency	Supply of Equipment	Supply of Equipment	Foreign Currency	Local Currency	Local Transportation	Local Transportation, Construction and Installation
		Foreign Supply	Local Supply				
		CIF Thai Port	Ex-works Price (excluding VAT)				
		Amount	Amount				
IH : OPTICAL FIBER AND LINE ACCESSORIES	THB	7,384,710.00	2,761,900.00				5,140,800.00
IK : LINE CONNECTION							30,000.00
IN : TEST OF EQUIPMENT	THB			3,560,000.00			
IO : SUPPLY OF SERVICE OF VEHICLES							5,200,000.00
IP : SUPPLY OF SPARE EQUIPMENT			15,841,800.00			503,915.87	
TOTAL PRICE	THB	99,123,610.00	Baht	3,560,000.00	Baht	Baht	Baht
			754,310,460.00			503,915.87	442,373,680.00

นางสาวอสาชา ช่างวิทยากร


ทจตส-ท.

25 ต.ค. 2564

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Local Transportation, Construction and Installation (excluding VAT) Baht	
				Unit Price	Amount
1A1	Check survey and staking of tower locations (Approximately 92 km in transmission line distance)	lump sum	each	3,036,000.00	3,036,000.00
1A2	Clearing right-of-way of 30 meters on each side of center line of the transmission line from Tha Tako Substation to KM.92 (Approximately 92 km in transmission line distance)	lump sum	each	2,760,000.00	2,760,000.00
1A3	Subsoil tests and preliminary measurement of ground electrical resistance and earth resistivity (to be performed at tower locations directed by EGAT)				
1A3.1	Light ram sound tests with hand auger and preliminary measurement of ground electrical resistance and earth resistivity from ground surface to 7 meters in depth	156	bore	6,900.00	1,076,400.00
1A3.2	Standard penetration tests and preliminary measurement of ground electrical resistance and earth resistivity at the depth and locations as directed by EGAT (Approximately 82 bores)	820	m	3,300.00	2,706,000.00
1A4	Boundary post along boundary line of right-of-way	476	post	1,900.00	904,400.00
Total Price for 1A				Baht	10,482,800.00


นางสาวอัสยา ช่างวิทยากร
ทจตส-ท.
25 ต.ค. 2564


นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B1	Foundation for tower type DQV3									
1B1.1	Pad Foundation type CS	10	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,070,000.00	10,700,000.00
1B1.2	Pad Foundation type CIII	30	tower		XXXXX	XXXXX	XXXXX	XXXXX	930,000.00	27,900,000.00
1B1.3	Pad Foundation type CIV	70	tower		XXXXX	XXXXX	XXXXX	XXXXX	650,000.00	45,500,000.00
1B1.4	Pad Foundation type CV	24	tower		XXXXX	XXXXX	XXXXX	XXXXX	504,000.00	12,096,000.00
1B1.5	Pile foundation type 6-Pile Cluster (exclusive of cost of piles and pile driving)	5	tower		XXXXX	XXXXX	XXXXX	XXXXX	440,000.00	2,200,000.00
1B1.6	Pile foundation type 9-Pile Cluster (exclusive of cost of piles and pile driving)	25	tower		XXXXX	XXXXX	XXXXX	XXXXX	634,000.00	15,850,000.00
1B1.7	Pile foundation type 12-Pile Cluster (exclusive of cost of piles and pile driving)	20	tower		XXXXX	XXXXX	XXXXX	XXXXX	827,000.00	16,540,000.00
1B1.8	Pile foundation type 16-Pile Cluster (exclusive of cost of piles and pile driving)	8	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,086,000.00	8,688,000.00
1B2	Foundation for tower type DQV9									
1B2.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,100,000.00	1,100,000.00
1B2.2	Pad Foundation type CIII	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,040,000.00	1,040,000.00

นางสุดารัตน์ ไชยพันธุ์

Out

นางสาวอัสยา ช่างวิทยาการ
หจกส-ท.


MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B2.3	Pad Foundation type CIV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	706,000.00	706,000.00
1B2.4	Pile foundation type 9-Pile Cluster (exclusive of cost of piles and pile driving)	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	634,000.00	634,000.00
1B3	Foundation for tower type DQTR									
1B3.1	Pad Foundation type CIII	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	930,000.00	930,000.00
1B3.2	Pad Foundation type CIV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	672,000.00	672,000.00
1B3.3	Pile foundation type 9-Pile Cluster (exclusive of cost of piles and pile driving)	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	634,000.00	634,000.00
1B4	Foundation for tower type HDQV3									
1B4.1	Pad Foundation for tower type HDQV3 as per Drawing No. C23-1165	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	4,518,080.00	4,518,080.00
1B5	Foundation for tower type DQT20									
1B5.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,700,000.00	1,700,000.00
1B5.2	Pad Foundation type CIII	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,600,000.00	1,600,000.00
1B5.3	Pad Foundation type CV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	762,000.00	762,000.00


นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง


นางสาวอาสยา ช่างวิทยากร
ทจตส-ท.
25 ต.ค. 2564

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B5.4	Pile foundation type 12-Pile Cluster (exclusive of cost of piles and pile driving)	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	827,700.00	827,700.00
1B5.5	Pile foundation type 16-Pile Cluster (exclusive of cost of piles and pile driving)	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,086,000.00	1,086,000.00
1B6	Foundation for tower type DQT40									
1B6.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,020,000.00	2,020,000.00
1B6.2	Pad Foundation type CIII	5	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,700,000.00	8,500,000.00
1B6.3	Pad Foundation type CIV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,160,000.00	1,160,000.00
1B6.4	Pad Foundation type CV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	941,000.00	941,000.00
1B6.5	Pile foundation type 12-Pile Cluster (exclusive of cost of piles and pile driving)	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	827,000.00	2,481,000.00
1B6.6	Pile foundation type 16-Pile Cluster (exclusive of cost of piles and pile driving)	4	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,086,000.00	4,344,000.00
1B6.7	Pile foundation type 20-Pile Cluster (exclusive of cost of piles and pile driving)	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,344,000.00	4,032,000.00

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
15 Oct 2021

นางสาวอาสยา ช่างวิทยากร
ทจตส-ท.
25 ต.ค. 2564

- Project 1-1C6 -

TIEC-L-03-1

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B7	Foundation for tower type DQT60									
1B7.1	Pad Foundation type CS	2	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,390,000.00	4,780,000.00
1B7.2	Pad Foundation type CIII	2	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,050,000.00	4,100,000.00
1B7.3	Pad Foundation type CIV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,360,000.00	1,360,000.00
1B7.4	Pad Foundation type CV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,090,000.00	1,090,000.00
1B7.5	Pile foundation type 16-Pile Cluster (exclusive of cost of piles and pile driving)	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,086,000.00	3,258,000.00
1B7.6	Pile foundation type 20-Pile Cluster (exclusive of cost of piles and pile driving)	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,344,000.00	4,032,000.00
1B7.7	Pile foundation type 25-Pile Cluster (exclusive of cost of piles and pile driving)	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,666,000.00	4,998,000.00
1B8	Precast prestressed concrete piles									
1B8.1	Furnishing precast prestressed concrete piles min 160 cm. effective perimeter	40480	m		XXXXX	XXXXX	XXXXX	XXXXX	1,700.00	68,816,000.00

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

นางสาวอสาชญา ช่างวิทยากร

ทจตส-ท.

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B8.2	Installation of precast prestressed concrete piles 160 cm. effective perimeter	40480	m		XXXXX	XXXXX	XXXXX	XXXXX	600.00	24,288,000.00
1B9	Additional foundation work									
1B9.1	Additional earth excavation and backfilling including dewatering	10	cubic meter		XXXXX	XXXXX	XXXXX	XXXXX	500.00	5,000.00
1B9.2	Additional ordinary concrete work including forms	5	cubic meter		XXXXX	XXXXX	XXXXX	XXXXX	11,000.00	55,000.00
1B9.3	Additional steel reinforcement bars	0.5	ton		XXXXX	XXXXX	XXXXX	XXXXX	28,000.00	14,000.00
1B9.4	Additional rock excavation	500	cubic meter		XXXXX	XXXXX	XXXXX	XXXXX	5,000.00	2,500,000.00
Total Price for 1B							Baht		Baht 298,457,780.00	

นางสาวอัสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564

นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

๐๖๘.-๐๗๓.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price	
					CIF Thai Port		Unit Price					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1C1	Tower Type DQV3											
1C1.1	Basic body (500-4x1272 DQV3)	192	body		XXXXX	XXXXX	1,796,000.00	344,832,000.00	191,380.00	36,744,960.00		
1C1.2	Body extension 7.5 m (500-4x1272 DQV3)	33	body		XXXXX	XXXXX	459,000.00	15,147,000.00	48,910.00	1,614,030.00		
1C1.3	Leg extension 1.5 m (500-4x1272 DQV3)	12	leg		XXXXX	XXXXX	22,800.00	273,600.00	2,430.00	29,160.00		
1C1.4	Leg extension 3.0 m (500-4x1272 DQV3)	16	leg		XXXXX	XXXXX	30,400.00	486,400.00	3,240.00	51,840.00		
1C1.5	Leg extension 4.5 m (500-4x1272 DQV3)	64	leg		XXXXX	XXXXX	37,000.00	2,368,000.00	3,950.00	252,800.00		
1C1.6	Leg extension 6.0 m (500-4x1272 DQV3)	72	leg		XXXXX	XXXXX	47,700.00	3,434,400.00	5,090.00	366,480.00		
1C1.7	Leg extension 7.5 m (500-4x1272 DQV3)	144	leg		XXXXX	XXXXX	63,200.00	9,100,800.00	6,740.00	970,560.00		
1C1.8	Leg extension 9.0 m (500-4x1272 DQV3)	136	leg		XXXXX	XXXXX	75,500.00	10,268,000.00	8,050.00	1,094,800.00		
1C1.9	Leg extension 10.5 m (500-4x1272 DQV3)	324	leg		XXXXX	XXXXX	93,800.00	30,391,200.00	10,000.00	3,240,000.00		
1C1.10	Stub type CS (500-4x1272 DQV3)	40	leg		XXXXX	XXXXX	20,800.00	832,000.00	2,220.00	88,800.00		
1C1.11	Stub type CIII (500-4x1272 DQV3)	120	leg		XXXXX	XXXXX	19,700.00	2,364,000.00	2,100.00	252,000.00		
1C1.12	Stub type CIV (500-4x1272 DQV3)	280	leg		XXXXX	XXXXX	17,900.00	5,012,000.00	1,910.00	534,800.00		
1C1.13	Stub type CV (500-4x1272 DQV3)	96	leg		XXXXX	XXXXX	16,800.00	1,612,800.00	1,800.00	172,800.00		
1C1.14	Stub angle (500-4x1272 DQV3) for pile foundation type 6-Pile Cluster	20	leg		XXXXX	XXXXX	11,000.00	220,000.00	1,180.00	23,600.00		

[Signature]
นางสุรัตน์ ไชยพันธ์

[Signature]
นางสาวอัสยา ช่างวิทยากร
ทตส-ท.

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht					
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price		Amount	
					CIF Thai Port									
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount				
1C1.15	Stub angle (500-4x1272 DQV3) for pile foundation type 9-Pile Cluster	100	leg		XXXXX	XXXXX	11,000.00	1,100,000.00	1,180.00	118,000.00				
1C1.16	Stub angle (500-4x1272 DQV3) for pile foundation type 12-Pile Cluster	80	leg		XXXXX	XXXXX	11,000.00	880,000.00	1,180.00	94,400.00				
1C1.17	Stub angle (500-4x1272 DQV3) for pile foundation type 16-Pile Cluster	32	leg		XXXXX	XXXXX	13,000.00	416,000.00	1,390.00	44,480.00				
1C2	Tower Type DQV9													
1C2.1	Basic body with 0°- 3° arm (500-4x1272 DQV9(3))	3	body		XXXXX	XXXXX	2,169,000.00	6,507,000.00	231,130.00	693,390.00				
1C2.2	Basic body with 3°- 9° arm (500-4x1272 DQV9(9))	1	body		XXXXX	XXXXX	2,208,000.00	2,208,000.00	235,280.00	235,280.00				
1C2.3	Body extension 7.5 m (500-4x1272 DQV9)	1	body		XXXXX	XXXXX	530,000.00	530,000.00	56,480.00	56,480.00				
1C2.4	Body extension 15.0 m (500-4x1272 DQV9)	3	body		XXXXX	XXXXX	909,000.00	2,727,000.00	96,870.00	290,610.00				
1C2.5	Leg extension 4.5 m (500-4x1272 DQV9)	8	leg		XXXXX	XXXXX	48,100.00	384,800.00	5,130.00	41,040.00				
1C2.6	Leg extension 7.5 m (500-4x1272 DQV9)	4	leg		XXXXX	XXXXX	79,400.00	317,600.00	8,470.00	33,880.00				

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

นางสาวอาสยา ช่างวิทยากร

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C2.7	Leg extension 10.5 m (500-4x1272 DQV9)	4	leg		XXXXX	XXXXX	111,000.00	444,000.00	11,830.00	47,320.00
1C2.8	Stub type CS (500-4x1272 DQV9(9))	4	leg		XXXXX	XXXXX	27,400.00	109,600.00	2,920.00	11,680.00
1C2.9	Stub type CIII (500-4x1272 DQV9(9))	4	leg		XXXXX	XXXXX	25,100.00	100,400.00	2,680.00	10,720.00
1C2.10	Stub type CIV (500-4x1272 DQV9(9))	4	leg		XXXXX	XXXXX	23,300.00	93,200.00	2,490.00	9,960.00
1C2.11	Stub angle (500-4x1272 DQV9) for pile foundation type 9-Pile Cluster	4	leg		XXXXX	XXXXX	13,000.00	52,000.00	1,390.00	5,560.00
1C3	Tower Type DQTR									
1C3.1	Basic body (500-4x1272 DQTR)	3	body		XXXXX	XXXXX	2,783,000.00	8,349,000.00	296,550.00	889,650.00
1C3.2	Body extension 7.5 m (500-4x1272 DQTR)	1	body		XXXXX	XXXXX	873,000.00	873,000.00	93,030.00	93,030.00
1C3.3	Leg extension 4.5 m (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	63,500.00	254,000.00	6,770.00	27,080.00
1C3.4	Leg extension 7.5 m (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	110,000.00	440,000.00	11,730.00	46,920.00
1C3.5	Leg extension 10.5 m (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	146,000.00	584,000.00	15,560.00	62,240.00
1C3.6	Stub type CIII (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	19,200.00	76,800.00	2,050.00	8,200.00
1C3.7	Stub type CIV (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	17,000.00	68,000.00	1,820.00	7,280.00

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
15 Oct 2021

นางสาวอาสยา ช่างวิทยากร
หจตส-ท.
25 ต.ค. 2564

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C3.8	Stub angle (500-4x1272 DQTR) for pile foundation type 9-Pile Cluster	4	leg		XXXXX	XXXXX	11,000.00	44,000.00	1,180.00	4,720.00
1C4	Tower Type HDQV3									
1C4.1	Basic body (500-4x1272 HDQV3)	1	body		XXXXX	XXXXX	9,514,500.00	9,514,500.00	1,013,850.00	1,013,850.00
1C4.2	Leg extension A80 (500-4x1272 HDQV3)	4	leg		XXXXX	XXXXX	923,000.00	3,692,000.00	98,360.00	393,440.00
1C4.3	Stub angle for pad foundation (500-4x1272 HDQV3)	4	leg		XXXXX	XXXXX	65,800.00	263,200.00	7,020.00	28,080.00
1C5	Tower Type DQT20									
1C5.1	Basic body (500-4x1272 DQT20)	5	body		XXXXX	XXXXX	3,095,000.00	15,475,000.00	329,800.00	1,649,000.00
1C5.2	Leg extension 1.5 m (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	40,700.00	162,800.00	4,340.00	17,360.00
1C5.3	Leg extension 3.0 m (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	57,300.00	229,200.00	6,110.00	24,440.00
1C5.4	Leg extension 4.5 m (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	70,200.00	280,800.00	7,490.00	29,960.00
1C5.5	Leg extension 7.5 m (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	102,000.00	408,000.00	10,870.00	43,480.00
1C5.6	Leg extension 10.5 m (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	162,000.00	648,000.00	17,270.00	69,080.00

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Unit Price	Amount		
					Unit Price	Amount			Unit Price	Amount
1C5.7	Stub type CS (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	42,000.00	168,000.00	4,480.00	17,920.00
1C5.8	Stub type CIII (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	42,000.00	168,000.00	4,480.00	17,920.00
1C5.9	Stub type CV (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	36,300.00	145,200.00	3,870.00	15,480.00
1C5.10	Stub angle (500-4x1272 DQT20) for pile foundation type 12-Pile Cluster	4	leg		XXXXX	XXXXX	18,000.00	72,000.00	1,920.00	7,680.00
1C5.11	Stub angle (500-4x1272 DQT20) for pile foundation type 16-Pile Cluster	4	leg		XXXXX	XXXXX	18,000.00	72,000.00	1,920.00	7,680.00
1C6	Tower Type DQT40									
1C6.1	Basic body (500-4x1272 DQT40)	18	body		XXXXX	XXXXX	3,606,000.00	64,908,000.00	384,250.00	6,916,500.00
1C6.2	Leg extension 3.0 m (500-4x1272 DQT40)	28	leg		XXXXX	XXXXX	66,800.00	1,870,400.00	7,120.00	199,360.00
1C6.3	Leg extension 4.5 m (500-4x1272 DQT40)	12	leg		XXXXX	XXXXX	77,500.00	930,000.00	8,260.00	99,120.00
1C6.4	Leg extension 6.0 m (500-4x1272 DQT40)	8	leg		XXXXX	XXXXX	99,400.00	795,200.00	10,600.00	84,800.00
1C6.5	Leg extension 7.5 m (500-4x1272 DQT40)	16	leg		XXXXX	XXXXX	122,000.00	1,952,000.00	13,000.00	208,000.00
1C6.6	Leg extension 9.0 m (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	161,000.00	644,000.00	17,160.00	68,640.00

นางสาวอัสยา ช่างวิทยากร
นางสุดารัตน์ ไชยพันธุ์

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Unit Price	Amount		
					Unit Price	Amount			Unit Price	Amount
1C6.7	Leg extension 10.5 m (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	192,000.00	768,000.00	20,460.00	81,840.00
1C6.8	Stub type CS (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	49,700.00	198,800.00	5,300.00	21,200.00
1C6.9	Stub type CIII (500-4x1272 DQT40)	20	leg		XXXXX	XXXXX	49,700.00	994,000.00	5,300.00	106,000.00
1C6.10	Stub type CIV (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	45,000.00	180,000.00	4,800.00	19,200.00
1C6.11	Stub type CV (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	41,900.00	167,600.00	4,470.00	17,880.00
1C6.12	Stub angle (500-4x1272 DQT40) for pile foundation type 12-Pile Cluster	12	leg		XXXXX	XXXXX	28,000.00	336,000.00	2,990.00	35,880.00
1C6.13	Stub angle (500-4x1272 DQT40) for pile foundation type 16-Pile Cluster	16	leg		XXXXX	XXXXX	28,000.00	448,000.00	2,990.00	47,840.00
1C6.14	Stub angle (500-4x1272 DQT40) for pile foundation type 20-Pile Cluster	12	leg		XXXXX	XXXXX	28,000.00	336,000.00	2,990.00	35,880.00
1C7	Tower Type DQT60									
1C7.1	Basic body (500-4x1272 DQT60)	15	body		นางสาวอาสยา ช่างวิทยากร ทจตส-ท. XXXXX	XXXXX	4,483,000.00	67,245,000.00	477,700.00	7,165,500.00
1C7.2	Leg extension 3.0 m (500-4x1272 DQT60)	16	leg		25 ต.ค. 2564 XXXXX	XXXXX	85,500.00	1,368,000.00	9,120.00	145,920.00
1C7.3	Leg extension 4.5 m (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	115,000.00	460,000.00	12,260.00	49,040.00
1C7.4	Leg extension 6.0 m (500-4x1272 DQT60)	12	leg		XXXXX	XXXXX	127,000.00	1,524,000.00	13,540.00	162,480.00

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price	
					CIF Thai Port		Unit Price					
					Unit Price	Amount	Unit Price	Amount				
1C7.5	Leg extension 7.5 m (500-4x1272 DQT60)	12	leg		XXXXX	XXXXX	160,000.00	1,920,000.00	17,050.00	204,600.00		
1C7.6	Leg extension 9.0 m (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	192,000.00	768,000.00	20,460.00	81,840.00		
1C7.7	Leg extension 10.5 m (500-4x1272 DQT60)	12	leg		XXXXX	XXXXX	223,000.00	2,676,000.00	23,770.00	285,240.00		
1C7.8	Stub type CS (500-4x1272 DQT60)	8	leg		XXXXX	XXXXX	52,400.00	419,200.00	5,590.00	44,720.00		
1C7.9	Stub type CIII (500-4x1272 DQT60)	8	leg		XXXXX	XXXXX	52,400.00	419,200.00	5,590.00	44,720.00		
1C7.10	Stub type CIV (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	49,300.00	197,200.00	5,260.00	21,040.00		
1C7.11	Stub type CV (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	46,200.00	184,800.00	4,930.00	19,720.00		
1C7.12	Stub angle (500-4x1272 DQT60) for pile foundation type 16-Pile Cluster	12	leg		XXXXX	XXXXX	29,000.00	348,000.00	3,100.00	37,200.00		
1C7.13	Stub angle (500-4x1272 DQT60) for pile foundation type 20-Pile Cluster	12	leg		XXXXX	XXXXX	29,000.00	348,000.00	3,100.00	37,200.00		
1C7.14	Stub angle (500-4x1272 DQT60) for pile foundation type 25-Pile Cluster	12	leg		XXXXX	XXXXX	29,000.00	348,000.00	3,100.00	37,200.00		
1C8	Tower signs											
1C8.1	Aerial patrol signs นางสาวอาสยา ช่างวิทยากร ทจตส-ท.	93	piece		XXXXX	XXXXX			2,900.00	269,700.00		

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C8.2	Phasing signs (3 pieces per set)	36	set		XXXXX	XXXXX			6,200.00	223,200.00
1C8.3	Circuit name signs	2	piece		XXXXX	XXXXX			5,500.00	11,000.00
1C8.4	Warning signs	20	piece		XXXXX	XXXXX			5,100.00	102,000.00
1C8.5	Danger signs	20	piece		XXXXX	XXXXX			2,900.00	58,000.00
1C9	Additional tower work									
1C9.1	Additional galvanized steel work	1	ton		XXXXX	XXXXX	61,000.00	61,000.00	6,500.00	6,500.00
1C9.2	Additional paint with two coats of bituminous paint	10	sq. meter		XXXXX	XXXXX			2,200.00	22,000.00
Total Price for 1C							Baht 637,013,700.00		Baht 68,574,880.00	

orn
นางสาวอาสยา ช่างวิทยากร
หจตส-ท.
25 ต.ค. 2564

J.
นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1D1	45°/45° V-string suspension Assembly 3 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	1170	set		XXXXXX	XXXXXX	33,000.00	38,610,000.00	included in stringing work	included in stringing work		
1D2	45°/45° V-string suspension Assembly 3C for four-bundled 1272 MCM ACSR/GA conductor, with arcing horn (Excluding insulator)	6	set		XXXXXX	XXXXXX	33,000.00	198,000.00	included in stringing work	included in stringing work		
1D3	35°/55° V-string suspension Assembly 5A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	3	set		XXXXXX	XXXXXX	44,000.00	132,000.00	included in stringing work	included in stringing work		
1D4	45°/45° V-string suspension Assembly 8A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	18	set		XXXXXX	XXXXXX	44,000.00	792,000.00	included in stringing work	included in stringing work		
1D5	35°/55° V-string suspension Assembly 19A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	3	set		XXXXXX	XXXXXX	47,000.00	141,000.00	included in stringing work	included in stringing work		
1D6	Deadend Assembly 13 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	174	set		XXXXXX	XXXXXX	42,000.00	7,308,000.00	included in stringing work	included in stringing work		

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

นางสาวอสาชา ช่างวิทยากร

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Unit Price	Amount	Unit Price	Amount
					CIF Thai Port		Ex-works Price (excluding VAT) Baht					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1D7	Deadend Assembly 14 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	276	set		XXXXXX	XXXXXX	42,000.00	11,592,000.00	included in stringing work	included in stringing work		
1D8	Deadend Assembly 15A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	12	set		XXXXXX	XXXXXX	44,000.00	528,000.00	included in stringing work	included in stringing work		
1D9	Jumper support Assembly 17 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	270	set		XXXXXX	XXXXXX	24,000.00	6,480,000.00	included in stringing work	included in stringing work		
1D10	Shield wire suspension (Insulated) Assembly 1 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	166	set		XXXXXX	XXXXXX	2,400.00	398,400.00	included in stringing work	included in stringing work		
1D11	Shield wire suspension (Grounded) Assembly 2 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	34	set		XXXXXX	XXXXXX	1,800.00	61,200.00	included in stringing work	included in stringing work		
1D12	Shield wire deadend (Insulated) Assembly 11 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	63	set		XXXXXX	XXXXXX	4,400.00	277,200.00	included in stringing work	included in stringing work		

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price	
					CIF Thai Port		Unit Price					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1D13	Shield wire deadend (Grounded) Assembly 12 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	13	set		XXXXXX	XXXXXX	1,200.00	15,600.00	included in stringing work	included in stringing work		
1D14	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin. In case of porcelain insulator the quantity of each color shall be : a.Brown glaze 65,814 discs b.Light grey glaze 5,460 discs	71274	disc	THB	900.00	64,146,600.00			included in stringing work	included in stringing work		
1D15	Porcelain or glass insulator ANSI CLASS 52-11 (50,000 lbs) with corrosion proof type pin. In case of porcelain insulator the quantity of each color shall be : a.Brown glaze 23,124 discs b.Light grey glaze 1,848 discs	24972	disc	THB	1,100.00	27,469,200.00			included in stringing work	included in stringing work		
1D16	Insulator strain type ANSI CLASS 54-2 (to be used with item 1D10)	166	disc	THB	400.00	66,400.00			included in stringing work	included in stringing work		



นางสาวอสาชา ช่างวิทยากร

ทดตส-ท.

25 ต.ค. 2564



นางสุดารัตน์ ไชยพันธุ์

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง


15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1D17	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin (to be used with item 1D12, in case of porcelain insulator the color shall be Brown glaze)	63	disc	THB	900.00	56,700.00				
				THB	91,738,900.00		Baht		Baht	
Total Price for 1D							66,533,400.00			


 นางสาวอสา ช่างวิทยากร
 ทจตส-ท.
 25 ต.ค. 2564



 นางสุตารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht					
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price		Amount	
					CIF Thai Port									
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount				
1E1	1272 MCM ACSR/GA conductor													
1E1.1	1272 MCM ACSR/GA Conductor , furnishing conductor for item 1E1.2 and 1E1.3 (to be supplied by EGAT, see Article F-3), approximately 92 kilometer in transmission line distance		km		XXXXXX	XXXXXX	XXXXXX	XXXXXX						
1E1.2	Stringing of conductor by controlled tension method, double circuit, 3 phase, four-bundled conductor per phase, measured based on horizontal distance of line route from deadend tower at Tha Tako Substation to tower type DQT60 at KM.92	92	km		XXXXXX	XXXXXX	XXXXXX	XXXXXX	512,000.00	47,104,000.00				
1E1.3	Installation of conductor, double circuit, 3 phase, four-bundled conductor per phase, between deadend tower and take-off-structure at Tha Tako Substation as per Drawing No. E08-002	lump sum	each		XXXXXX	XXXXXX	XXXXXX	XXXXXX	335,000.00	335,000.00				


 นางสาวอศยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564


 นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht					
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price		Amount	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht							
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount				
1E2	Handling and transportation of empty returnable metal reel from the site to Bangkok and/or its vicinity, at the point designated by EGAT (See Article F-3 and F-4)	934	reel		XXXXX	XXXXX	XXXXX	XXXXX	4,000.00	3,736,000.00				
1E3	3/8"nominal diameter, extra high strength galvanized steel shield wire, class A coating													
1E3.1	3/8" Extra high strength galvanized steel wire (Furnishing for item 1E3.2 and 1E3.3) based on linear length (Linear length = No.of shield wire x horizontal distance of line route + 1.5%)	93.38	km											
							30,000.00	2,801,400.00	included in stringing work	included in stringing work				
1E3.2	Stringing by controlled tension method, one shield wire, measured based on horizontal distance of line route from deadend tower at Tha Tako Substation to tower type DQT60 at KM.92	92	km		XXXXX	XXXXX	XXXXX	XXXXX	24,000.00	2,208,000.00				


นางสาวอาสา ช่างวิทยากร
จดต-ท.
25 ต.ค. 2564



นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht		
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		
					CIF Thai Port		Ex-works Price (excluding VAT) Baht				
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	
1E3.3	Installation of three shield wires between deadend tower and take-off-structure at Tha Tako Substation as per Drawing No. E08-002	lump sum	each		XXXXXX	XXXXXX	XXXXXX	XXXXXX	24,000.00	24,000.00	
Total Price for 1E								Baht	2,801,400.00	Baht	53,407,000.00


 นางสาวอาสา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564


 นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price Amount	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1F1	Full tension splices for 1272 MCM ACSR/GA conductor	552	set		XXXXX	XXXXX	1,400.00	772,800.00	included in stringing work	included in stringing work		
1F2	Full tension splices for 3/8" extra high strength, galvanized steel shield wire	25	set		XXXXX	XXXXX	300.00	7,500.00	included in stringing work	included in stringing work		
1F3	Spacer damper for four-bundled 1272 MCM ACSR/GA conductor (for double circuit, approx. 92 km in transmission line distance)		each				22,080,000.00	22,080,000.00	included in stringing work	included in stringing work		
1F4	Rigid spacer for four-bundled 1272 MCM ACSR/GA conductor (for jumper loop on double circuit transmission line system)	684	set		XXXXX	XXXXX	1,900.00	1,299,600.00	included in stringing work	included in stringing work		
1F5	Rigid spacer for two-bundled 1272 MCM ACSR/GA conductor (for jumper loop on double circuit transmission line system)	456	set		XXXXX	XXXXX	600.00	273,600.00	included in stringing work	included in stringing work		
1F6	Vibration damper for 3/8" extra high strength galvanized steel shield wire	38	set		XXXXX	XXXXX	600.00	22,800.00	included in stringing work	included in stringing work		

Out
นางสาวอสา ช่างวิทยากร
ทดส.ท.
25 ต.ค. 2564

J.
นางสุดารัตน์ ไชยพันธ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1F7	Field test of spacer-damper for four-bundled 1272 MCM ACSR/GA conductor as per Article F-9b of the Specifications No. L-500 kV	1	test		XXXXXX	XXXXXX	XXXXXX	XXXXXX	190,000.00	190,000.00
Total Price for 1F							Baht 24,456,300.00		Baht 190,000.00	


นางสาวอาสยา ช่างวิทยากร
ทจตส-ท.
25 ต.ค. 2564


นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price	
					CIF Thai Port		Unit Price					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1G1	Tower grounding											
1G1.1	No.8 AWG dead soft galvanized steel wire	2856	m				50.00	142,800.00	20.00	57,120.00		
1G1.2	No.2 AWG solid copper-clad steel wire	22134	m				150.00	3,320,100.00	20.00	442,680.00		
1G1.3	Exothermic connector type "CS" for cable to steel surface	952	piece				150.00	142,800.00	70.00	66,640.00		
1G1.4	Exothermic connector type "CR1" for parallel cable to ground rod	1048	piece				280.00	293,440.00	80.00	83,840.00		
1G1.5	Exothermic connector type "CR2" for perpendicular cable to ground rod	972	piece				230.00	223,560.00	80.00	77,760.00		
1G1.6	Exothermic connector type "CC" for cable to cable	96	piece				130.00	12,480.00	70.00	6,720.00		
1G1.7	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel standard ground rod	1048	piece				700.00	733,600.00	140.00	146,720.00		
1G1.8	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel sectional ground rod with coupling <i>out</i>	20	piece				940.00	18,800.00	170.00	3,400.00		

นางสาวอัสยา ช่างวิทยากร

ทจตส-ท.


25 ต.ค. 2564


นางสุดารัตน์ ไชยพันธุ์

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht		Unit Price Amount	
					CIF Thai Port		Ex-works Price (excluding VAT) Baht					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1G2	Fence/metal object grounding (to be performed at location directed by EGAT)											
1G2.1	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') galvanized steel standard ground rod	6	piece					550.00	3,300.00	130.00 780.00		
1G2.2	Galvanized double saddle steel ground rod clamp	6	set					440.00	2,640.00	80.00 480.00		
1G2.3	8 mm.(5/16") 7-strand galvanized steel ground wire	30	m					80.00	2,400.00	50.00 1,500.00		
1G2.4	Galvanized steel crimpet	10	set					70.00	700.00	50.00 500.00		
1G2.5	19 mm. diameter bronze split bolt	6	set					490.00	2,940.00	80.00 480.00		
1G2.6	9.5 mm. (3/8") galvanized steel staples	60	piece					40.00	2,400.00	30.00 1,800.00		
Total Price for 1G								Baht 4,901,960.00		Baht 890,420.00		


 นางสาวอาสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564


 นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Unit Price	Amount		
					Unit Price	Amount			Unit Price	Amount
1H1	Composite overhead ground wire with 36 core optical fibers (OPGW) (referred section F-4.3)									
1H1.1	13.5mm dia. Composite Overhead Ground Wire with Optical Fiber (OPGW)	lump sum	lump sum	THB	7,384,710.00	7,384,710.00			Included in Item 1H1.2	Included in Item 1H1.2
1H1.2	Stringing by controlled tension method, one OPGW measured based on horizontal distance of line route from Tha Tako (TTK) substation to KM.92 (Direction from Tha Tako to Sam Khok)	92	km		XXXXX	XXXXX	XXXXX	XXXXX	52,500.00	4,830,000.00
1H2	Non-metallic optical fiber cable									
1H2.1	36 core optical fiber cable from joint box at take-off structure to fiber frame termination cabinet at control building of TTK substation	700	m				130.00	91,000.00	Included in Item 1H2.2	Included in Item 1H2.2
1H2.2	Laying of optical fiber cable with accessories for Item 1H2.1, 1H2.3, 1H2.4 (including the joints between optical fiber cable to pigtails and to OPGW)	700	m		XXXXX	XXXXX	XXXXX	XXXXX	330.00	231,000.00
1H2.3	Rigid Steel Conduit from take-off structure to cable trench for item 1H2.1	lump sum	lump sum		XXXXX	XXXXX	6,100.00	6,100.00	Included in Item 1H2.2	Included in Item 1H2.2
1H2.4	EFLEX and/or HDPE Conduit for item 1H2.1 in cable trench	lump sum	lump sum		XXXXX	XXXXX	77,000.00	77,000.00	Included in Item 1H2.2	Included in Item 1H2.2
1H3	Warning signs requires as shown on Drawing No.TP150.1	lump sum	lump sum		XXXXX	XXXXX			Included in Item 1H1.2	Included in Item 1H1.2

นางสาวอสาชา ช่างวิทยากร

นางสุดารัตน์ ไชยพันธ์

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply		Ex-works Price (excluding VAT) Baht	
					CIF Thai Port		Unit Price	Amount		
					Unit Price	Amount			Unit Price	Amount
1H4	Joint box for optical fiber cable									
1H4.1	2-way joint box with accessories for two OPGW cables (including splicing work)	lump sum	lump sum							
1H4.2	2-way joint box with insulator and accessories for two OPGW cables (including splicing work)	lump sum	lump sum							
1H4.3	2-way joint box with insulator and accessories for OPGW cable and 36 core non-metallic optical fiber cable on the tower located between TTK substation and KM.92 (including splicing work)	lump sum	lump sum							
1H4.4	2-way joint box with insulator and accessories for OPGW and 36 core non-metallic optical fiber cable at take-off structure (TTK substation-1)	1	set							
1H4.5	2-way joint box with accessories for OPGW cable and 36 core non-metallic optical fiber cable on the tower located about 2 kilometers apart from TTK substation (including splicing work)	1	set							
1H5	Hardware assembly for OPGW									
1H5.1	OPGW suspension (Insulated) assembly 21 with armor rods (excluding insulator and vibration damper)	lump sum	lump sum		XXXXX	XXXXX	2,540,000.00	2,540,000.00		
1H5.2	OPGW suspension (Grounded) assembly 22 with armor rods (excluding vibration damper)	lump sum	lump sum		XXXXX	XXXXX				

นางสาวอสาชา ช่างวิทยากร

ทจตส-ท.

25 ต.ค. 2564

- Project 1-1C29 -

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

15 Oct 2021

TIEC-L-03-1

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1H5.3	OPGW tension (Insulated) assembly 23 with armor rods and arcing horns (excluding insulator and vibration damper)	lump sum	lump sum		XXXXX	XXXXX				
1H5.4	OPGW tension (Grounded) assembly 24 with armor rods (excluding vibration damper)	lump sum	lump sum		XXXXX	XXXXX				
1H5.5	OPGW tension with accessories and insulator to be used at take-off structure (TTK substation-1)	1	set		XXXXX	XXXXX				
1H6	Line accessories									
1H6.1	19" closed rack cabinet (TTK substation-1)	1	set				25,400.00	25,400.00	10,120.00	10,120.00
1H6.2	Fiber frame termination cabinet with cabke tray (TTK substation-1)	1	set				13,000.00	13,000.00	29,700.00	29,700.00
1H6.3	36 Pigtails (1.5 meters) (TTK substation-1)	1	set				2,600.00	2,600.00	1,760.00	1,760.00
1H6.4	Vibration damper assembly for OPGW and with accessories	lump sum	lump sum		XXXXX	XXXXX				
1H6.5	Parallel groove clamps	lump sum	lump sum							
1H6.6	Grounding clamps	lump sum	lump sum							
1H6.7	1-wire cleat without insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							
1H6.8	2-wire cleats without insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							

นางสาวอาสยา ช่างวิทยากร

นางสุดารัตน์ ไชยพันธุ์

จดส-ท.

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

25 ต.ค. 2564

15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1H6.9	6-wire cleats without insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							
1H6.10	Jumper cleat without insulator and accessories for OPGW on tension-type tower	lump sum	lump sum							
1H6.11	1-wire cleat with insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							
1H6.12	2-wire cleats with insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							
1H6.13	6-wire cleats with insulator and accessories for OPGW down-lead to joint box	lump sum	lump sum							
1H6.14	Jumper cleat with insulator and accessories for OPGW on tension-type tower	lump sum	lump sum							
1H6.15	6-wire cleats for coiling optical fiber cable at take-off structure	4	set			1,700.00	6,800.00	580.00	2,320.00	
1H6.16	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin	lump sum	lump sum							
1H6.17	Insulator strain type ANSI CLASS 54-2	lump sum	lump sum							
1H6.18	3/8" Extra high strength galvanized steel wire for grounding OPGW to towers	lump sum	lump sum			XXXXX	XXXXX			

นางสาวอศยา ช่างวิทยากร

ทจตส-ท.

25 ต.ค. 2564

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

15 Oct 2021

TIEC-L-03-1

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht			
					Foreign Supply		Local Supply					
					CIF Thai Port		Ex-works Price (excluding VAT) Baht					
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount		
1H7	Field testing for optical fiber	lump sum	lump sum		XXXXX	XXXXX	XXXXX	XXXXX	35,900.00	35,900.00		
Total Price for 1H				THB	7,384,710.00		Baht	2,761,900.00		Baht	5,140,800.00	



นางสาวอัสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564



นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

๐๖๘.-๐๗๓.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation, Construction and Installation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1K1	Jumper loop connection of double circuit, four-bundled 1272 MCM ACSR/GA conductor and OHGW and OPGW, at Tower type DQT60 of KM.92 to be 500 kV Tha Tako - Sam Khok Trasmision Line as per DWG. No. T05-001	lump sum	each		XXXXXX	XXXXXX	XXXXXX	XXXXXX	30,000.00	30,000.00
Total Price for 1K								Baht	Baht	30,000.00


นางสาวอัสยา ช่างวิทยาการ
หจตส-ท.
25 ต.ค. 2564


นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อศค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Foreign Currency		Local Currency (excluding VAT) Baht	
					Unit Price	Amount	Unit Price	Amount
1N1	Corona and RIV tests of complete conductor, insulator and hardware assemblies in accordance with Article D-7.a.(1) of Specification No.L-500 kV							
1N1.1	For 45°/45° V-string suspension Assembly 3	1	test	THB	240,000.00	240,000.00		
1N1.2	For 45°/45° Double V-string suspension Assembly 3C	1	test	THB	240,000.00	240,000.00		
1N1.3	For 35°/55° Double V-string suspension Assembly 5A	1	test	THB	240,000.00	240,000.00		
1N1.4	For 45°/45° Double V-string suspension Assembly 8A	1	test	THB	240,000.00	240,000.00		
1N1.5	For 35°/55° Double V-string suspension Assembly 19A	1	test	THB	240,000.00	240,000.00		
1N1.6	For Double String Conductor deadend Assembly 13	1	test	THB	240,000.00	240,000.00		
1N1.7	For Double String Conductor deadend Assembly 14	1	test	THB	240,000.00	240,000.00		
1N1.8	For Double string conductor deadend (slack span side) Assembly 15A	1	test	THB	240,000.00	240,000.00		
1N1.9	For Jumper support Assembly 17	1	test	THB	240,000.00	240,000.00		
1N2	Power arc test of insulator strings in accordance with Article D-7.c.(4) of Specification No.L-500 kV							
1N2.1	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	THB	450,000.00	450,000.00		
1N2.2	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	450,000.00	450,000.00		

นางสาวอัสยา ช่างวิทยากร
หจตส-ท.

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อผค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Foreign Currency		Local Currency (excluding VAT) Baht	
					Unit Price	Amount	Unit Price	Amount
1N3	Thermal-mechanical performance test in accordance with Article D-7.c.(5) of Specification No.L-500 kV							
1N3.1	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	THB	100,000.00	100,000.00		
1N3.2	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	100,000.00	100,000.00		
1N4	Steep wave front impulse test in accordance with Article D-7.c.(6) of Specification No. L-500 kV							
1N4.1	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	THB	150,000.00	150,000.00		
1N4.2	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	150,000.00	150,000.00		
Total Price for 1N						3,560,000.00	Baht	



นางสาวอัสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564



นางสุตารัตน์ ไชยพันธ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อผค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Local Transportation, Construction and Installation (excluding VAT) Baht	
				Unit Price	Amount
101	Facilities and service of four-wheel-driven, four doors vehicles, at least one ton capacity, 2000 cc. nominal, gasoline engine or 2500 cc. Nominal diesel engine, equipped with air-condition. The vehicles shall be in good condition, which shall be approved by EGAT. In case used Vehicles are proposed, the used period shall not exceed two years. (Refer to Article G-6. Housing and Other Facilities.)	104	car-month	50,000.00	5,200,000.00
Total Price for 10				Baht	5,200,000.00



นางสาวอัสยา ช่างวิทยาการ
 หจตส-ห.
 25 ต.ค. 2564



นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1P1	Tower Type DQV3									
1P1.1	Basic body (500-4x1272 DQV3)	2	body		XXXXX	XXXXX	1,796,000.00	3,592,000.00	57,413.11	114,826.22
1P1.2	Body extension 7.5 m (500-4x1272 DQV3)	2	body		XXXXX	XXXXX	459,000.00	918,000.00	14,672.95	29,345.90
1P1.3	Leg extension 9.0 m (500-4x1272 DQV3)	4	leg		XXXXX	XXXXX	75,500.00	302,000.00	2,413.52	9,654.08
1P1.4	Leg extension 10.5 m (500-4x1272 DQV3)	4	leg		XXXXX	XXXXX	93,800.00	375,200.00	2,998.52	11,994.08
1P1.5	Stub type CS (500-4x1272 DQV3)	8	leg		XXXXX	XXXXX	20,800.00	166,400.00	664.92	5,319.36
1P2	Tower Type DQV9									
1P2.1	Basic body with 0°- 3° arm (500-4x1272 DQV9(3))	1	body		XXXXX	XXXXX	2,169,000.00	2,169,000.00	69,336.89	69,336.89
1P2.2	Body extension 15.0 m (500-4x1272 DQV9)	1	body		XXXXX	XXXXX	909,000.00	909,000.00	29,058.20	29,058.20

นางสาวอภัสสา ช่างวิทยากร

นางสุดารัตน์ ไชยพันธุ์
ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

MEDIUM COST FOR BID NO. TIEC-L-03

อวส.-อพค.

FM-TL06 Rev.0 30/09/2557

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1P2.3	Leg extension 10.5 m (500-4x1272 DQV9)	4	leg		XXXXX	XXXXX	111,000.00	444,000.00	3,548.36	14,193.44
1P2.4	Stub type CS (500-4x1272 DQV9(3))	4	leg		XXXXX	XXXXX	27,400.00	109,600.00	875.90	3,503.60
1P3	Tower Type DQT60									
1P3.1	Basic body (500-4x1272 DQT60)	1	body		XXXXX	XXXXX	4,483,000.00	4,483,000.00	143,309.02	143,309.02
1P3.2	Leg extension 10.5 m (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	223,000.00	892,000.00	7,128.69	28,514.76
1P3.3	Stub type CS (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	52,400.00	209,600.00	1,675.08	6,700.32
1P4	45°/45° V-string suspension Assembly 3 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	12	set		XXXXX	XXXXX	33,000.00	396,000.00	990.00	11,880.00
1P5	45°/45° V-string suspension Assembly 8A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	6	set		XXXXX	XXXXX	44,000.00	264,000.00	1,320.00	7,920.00

นางสาวอัสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564

นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Item No.	Description	Estimated Qty.	Unit	Currency	Supply of Equipment		Supply of Equipment		Local Transportation (excluding VAT) Baht	
					Foreign Supply		Local Supply			
					CIF Thai Port		Ex-works Price (excluding VAT) Baht			
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1P6	Deadend Assembly 14 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	12	set		XXXXX	XXXXX	42,000.00	504,000.00	1,260.00	15,120.00
1P7	3/8" Extra high strength galvanized steel wire (1 reel)	3.6	km		XXXXX	XXXXX	30,000.00	108,000.00	900.00	3,240.00
Total Price for 1P							Baht 15,841,800.00		Baht 503,915.87	


 นางสาวอัสยา ช่างวิทยากร
 หจตส-ท.
 25 ต.ค. 2564


 นางสุดารัตน์ ไชยพันธุ์
 ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง
 15 Oct 2021

Important Information
for
Invitation to Bid No. TIEC-L-03

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:

Article A-3. Eligibility of Bidders: General Requirements and Article B-8. Information to be Submitted with Bid

Bidders shall provide written anti-corruption policies and guidelines as specified in Data Sheet.

Article A-4. Eligibility of Bidders: Technical Requirements

The Bidder shall be named in EGAT Accepted Bidders List for Supply and Construction of Transmission Line attached at the end of Section A. Invitation to Bid.

Article G-3. Safety Program

Safety terms and conditions have been revised. The Contractor shall observe and comply with the revised terms and conditions including Table 1. Safety Criteria and Conditions, Table 2. Contractor's Safety Information, and Table 3. Contractor Safety Evaluation Checklist which have been added at the end of Section G.

DATA SHEET

for

Invitation to Bid No. TIEC-L-03

(Two-envelope)

This Section consists of provisions that are specific to each procurement and supplement the information or requirements included in Bidding Documents.

1. Article A-3. Eligibility of Bidders: General Requirements

The following requirement shall be added to item I.:

“j. Bidders shall provide written anti-corruption policies and guidelines with respect to procurement and supplies according to the Notification of the Anti-Corruption Co-Operation Committee Concerning Minimum Standards of the Anti-Corruption Policies and Guidelines in Relation to Procurement and Supplies Required to be Implemented by the Business Operator, Section 19 of the Government Procurement and Supplies Management Act B.E. 2560 (A.D. 2017).”

2. Article B-2. Bid Prices

The price for the dismantled Equipment is not applicable in this invitation to bid.

3. Article B-3. Bid Security

The amount of bid security shall be USD 2,129,300.- or THB 67,650,000.-.

4. Article B-4. Validity of Bids

The validity of the bid shall be for three hundred (300) Days from the date specified for opening of technical proposals.

5. Article B-8. Information to be Submitted with Bid

The following document shall be added to Article B-8. Information to be Submitted with Bid:

y. Bidder's anti-corruption policies and guidelines in relation to procurement and supplies together with the completely filled out Anti-Corruption Compliance Checklist as provided.

6. Article B-12. Evaluation and Comparison of Bids

Evaluation and comparison of Bids shall be as specified in Article B-12. Evaluation and Comparison of Bids.

Anti-Corruption Compliance Checklist
(Individual Company / Joint Venture)

Bidders shall provide written anti-corruption policies and guidelines with respect to procurement and supplies pursuant to the Notification of the Anti-Corruption Co-Operation Committee Concerning Minimum Standards of the Anti-Corruption Policies and Guidelines in Relation to Procurement and Supplies Required to be Implemented by the Business Operator, in accordance with Section 19 of the Government Procurement and Supplies Management Act B.E. 2560 (A.D. 2017). This checklist shall be submitted with Bids.

Project :

State Agency: Electricity Generating Authority of Thailand

Bidder Name :

Item	Yes	No	Reference (Please specify Article)
1. Bidders have any written anti-corruption policies and guidelines which have been communicated to all levels of employees.			
2. Bidders impose penalty or regulations against corruption.			
3. Bidders have accessible channels or systems to report any suspicions or queries related to corruption.			
4. Bidders have internal personnel or unit explicitly responsible for the prevention of corruption.			

We hereby confirm that all above statements are true and correct.

Signed

(Name of Bidder)

(Authorized person)

Stamp company seal (if any)

Anti-Corruption Compliance Checklist
(Consortium)

Bidders shall provide written anti-corruption policies and guidelines with respect to procurement and supplies pursuant to the Notification of the Anti-Corruption Co-Operation Committee Concerning Minimum Standards of the Anti-Corruption Policies and Guidelines in Relation to Procurement and Supplies Required to be Implemented by the Business Operator, in accordance with Section 19 of the Government Procurement and Supplies Management Act B.E. 2560 (A.D. 2017). This checklist shall be submitted with Bids.

Project :

State Agency: Electricity Generating Authority of Thailand

Member No. ... of the consortium:

.....

Item	Yes	No	Reference (Please specify Article)
1. Bidders have any written anti-corruption policies and guidelines which have been communicated to all levels of employees.			
2. Bidders impose penalty or regulations against corruption.			
3. Bidders have accessible channels or systems to report any suspicions or queries related to corruption.			
4. Bidders have internal personnel or unit explicitly responsible for the prevention of corruption.			

We hereby confirm that all above statements are true and correct.

Signed

(Name of Bidder)

(Authorized person)

Stamp company seal (if any)

ELECTRICITY GENERATING AUTHORITY OF THAILAND

Nonthaburi
Thailand

INVITATION TO BID NO. TIEC-L-03

SUPPLY AND CONSTRUCTION OF TRANSMISSION LINE 500 kV THA TAKO – SAM KHOK (FROM THA TAKO TO KM.92)

TRANSMISSION SYSTEM IMPROVEMENT PROJECT IN NORTHEASTERN, LOWER NORTHERN, CENTRAL REGIONS AND BANGKOK AREA TO ENHANCE SYSTEM SECURITY

(TWO-ENVELOPE)

Invitation

The Electricity Generating Authority of Thailand (EGAT) hereby invites sealed bids for Supply and Construction of Transmission Line 500 kV Tha Tako – Sam Khok (from Tha Tako to KM.92) under Transmission System Improvement Project in Northeastern, Lower Northern, Central Regions and Bangkok Area to Enhance System Security in accordance with the Terms and Conditions, Technical Specifications and Drawings described in these Bidding Documents.

Work Description

The transmission line to be supplied and constructed under this Invitation is 500 kV, 50 Hz, 3 phase, quad conductor per phase, on double circuit self-supporting lattice towers extending from Tha Tako Substation to KM.92, having a distance of approximately 92 kilometers in length as the first section of the 500 kV Tha Tako – Sam Khok Transmission Line in the northern region of Thailand with a total distance of approximately 191 kilometers. This transmission line will be located on the new right-of-way with 30 meters in width on each side of the center line of the transmission line.

Please note that the second section of the whole 500 kV Tha Tako – Sam Khok Transmission Line to be constructed from KM.92 to Sam Khok Substation will be undertaken under Invitation to Bid No. TIEC-L-11. The Contractor of Invitation to Bid No. TIEC-L-03 shall also be responsible for the work at the connection point for both sections which is shown in the Drawing No. T05-001 : Interfacing Work.

The conductor to be employed under this Invitation will be 1272 MCM ACSR/GA supplied by EGAT. Two types of shield wires will be employed; one of which is 3/8 inch nominal diameter, extra high strength galvanized steel shield wire and the

other is composite overhead ground wire with 36-core optical fiber. Both types of shield wires shall be supplied by the Contractor.

All types of steel towers and foundations have already been designed by EGAT. Furthermore, the fabrication / erection drawings as well as stub & setting dimensions and details & bar bending schedule of foundations for all tower types will be prepared and provided to the Contractor by EGAT except the fabrication / erection drawings and stub & setting dimensions for tower type HDQV3 which shall be prepared and provided to EGAT by the Contractor.

However, the Contractor shall also note that the detailed fabrication / erection drawings for some tower leg extensions as well as stub & setting dimensions for some tower types may not be available or some modifications to EGAT's furnished details & bar bending schedule of foundations may be required. In such case, the Contractor shall perform and provide these drawings for EGAT's approval.

Detailed fabrication / erection drawings of steel towers provided by EGAT will be furnished to the Contractor after confirmation of Letter of Award of Contract. The Contractor shall carefully scrutinize EGAT's furnished detailed fabrication / erection drawings, make minor modifications as necessary and submit all revised drawings to EGAT for review and approval. The full responsibility for adequacy and accuracy of all detailed drawings shall rest with the Contractor and he shall have no right to claim for additional compensation as a result of his misinterpretation or failure to check the drawings for compliance with the design requirements, inaccuracies, errors and omissions.

Reproducible drawings and CD-ROM of EGAT's furnished detailed fabrication / erection drawings of steel towers will not be required. The approved drawings, reproducible drawings and CD-ROM of these steel towers required to be submitted for this Contract shall therefore be bill of material. However, in case the Contractor makes modifications to EGAT's furnished detailed fabrication / erection drawings of steel towers or details & bar bending schedule of foundations or prepares drawings of which leg extensions and/or stub & setting dimensions are not available, such drawings shall be submitted for EGAT's approval and therefore reproducible drawings and CD-ROM of these drawings shall be required.

The Contractor shall also be responsible for the design of any other necessary parts for completion of the Work, including the manufacture, supply, testing, construction and installation of the various components of the transmission line. The portion of design and detailing which are provided by EGAT is not under the Contractor's design responsibility.

Services required to complete the Work are shown in the Bid Price Schedules and included in these Bidding Documents.

Eligibility of Bidders: General Requirements

- I. 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 shall be well-established and maintain a permanent place of business.
 - c. The Bidder shall not be, or supply the Equipment, from the country under the state of Civil War.
 - 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. The Bidder shall not be a Jointly Interested Bidder with other Bidders as from the date of EGAT's issuance of the 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.
 - f. The Bidder shall not either be EGAT's consultant or involving 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.
 - g. 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.
 - h. In case of being a joint venture or a consortium, the Bidder shall carry out all the Work under such formation from the time of bidding until the fulfillment of the Contract.
 - i. ***The Bidder shall be a purchaser of the bidding documents from EGAT. For a joint venture or consortium, only one (1) member of the joint venture or consortium is required to purchase the bidding documents.***

In the case where the Bidder is not the purchaser of the bidding documents, the purchaser shall notify EGAT of the name of the Bidder in writing prior to the bid opening.

- II. All Bidders should preferably meet the following requirements; failure to so comply may constitute sufficient ground for rejection.
 - a. The Bidder shall have adequate funds to meet financial obligations incidental to this Contract.
 - b. The Bidder shall supply documentary evidence established in accordance with Article B-8. Information to be Submitted with Bid to demonstrate adequately that he is eligible to bid and is qualified to perform the Contract if his bid is accepted. Bidder should also demonstrate his capacity to perform the Work either with or without the use of subcontractor.

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 be named in EGAT Accepted Bidders List for Supply and Construction of Transmission Line : 500 kV Transmission Line with Four-bundled Conductor. The said Accepted List is attached at the end of Section A. Invitation to Bid.
 - b. For Insulator for conductor, the manufacturer shall be named in EGAT Accepted Manufacturers List for Insulator Fog Type and/or Standard Type attached at the end of Section A. Invitation to Bid.

OR

In case EGAT Accepted Manufacturers List is not attached herewith, the manufacturer shall have the qualifications as follows :

- 1) Insulator for conductor manufacturer shall be a regular manufacturer of excellent reputation having significant technical knowledge and at least three (3) years experience in the design, manufacture and testing of the Equipment, having manufacturing capacity available to perform the Work properly and expeditiously within the time specified, and having satisfactory past experience.
- 2) Insulator for conductor manufacturer shall have a record of three (3) consecutive years of successful operation/use of at least

100,000 units of insulator ANSI Class 52-8 or similar and at least 20,000 units of insulator ANSI Class 52-11 or similar in transmission line(s) operated in the transmission network electric utility in overseas country (not his own country) at a voltage level of 400 kV or higher during the last ten years.

- c. Proposing towers, conductor, hardware assemblies and line accessories for conductor, rigid spacers and spacer dampers for conductor, and composite overhead ground wire with optical fiber (OPGW) manufactured by regular manufacturers of excellent reputation having significant technical knowledge and at least three (3) years experience in the design, manufacture and testing of such Equipment, having manufacturing capacity available to perform the Work properly and expeditiously within the time specified, and having satisfactory past experience, with additional requirements as follows:
- 1) Tower manufacturer being an eligible local firm having set up a plant for fabrication of steel towers in Thailand
 - 2) Hardware assemblies and line accessories for conductor manufacturer being an eligible local firm having set up a plant in Thailand
 - 3) Rigid spacer for conductor manufacturer being an eligible local firm having set up a plant in Thailand
 - 4) Spacer dampers for conductor manufacturer having a record of five (5) consecutive years of successful operation/use of the same or similar type as those required under this Invitation and used in multi but not less than four-bundled conductor transmission lines operated at a voltage level of 400 kV or higher having accumulated circuit distance of not less than 200 kilometers
 - 5) Composite overhead ground wire with optical fiber (OPGW) manufacturer having a record of at least three (3) consecutive years of successful operation/use of the same or similar type as those required under this Invitation in the transmission line having accumulated distance of not less than 20 kilometers
 - 6) For proposed conductor, according to the Industrial Product Standards Act B.E. 2511 which stipulates that the conductor is an industrial product that is required to conform with the Thai Industrial Standards – TIS 85-2548;

In case of locally supplied conductor, the manufacturer of the conductor shall receive a license from the Industrial Product Standards Council, Ministry of Industry, for manufacture of the industrial product and use of a standard mark, and

In case of foreign supplied conductor, the conductor shall be imported by a person having received a license from the Industrial Product Standards Council, Ministry of Industry, for importation of the industrial product.

However, the Bidder may propose any qualified local manufacturer who does not have experience in design, manufacture and testing as well as a record of successful operation/use of his Equipment as specified above but has obtained special permission from EGAT for manufacture and/or fabrication of the specific Equipment within the scope specified in the letter of permission issued by EGAT, or propose any local manufacturer who is in the list of Eligible Local Manufacturers Accepted by EGAT as shown herein at the end of this Section.

In the event that the Bidder proposes the Equipment of the manufacturer who, at the time of bidding, fails to meet with requirements of any contract(s) with EGAT regarding major defects or malfunctioning of such Equipment, and such failure has not yet satisfactorily been proved to and/or settled with EGAT, EGAT reserves the right to reject his Bid.

This eligibility will not be applicable for any Equipment which is not required under this Invitation.

II. All Bidders should preferably meet the following technical requirements; failure to so comply may constitute sufficient ground for rejection.

- a. Having sufficient capacity to carry out the Work.
- b. Proposing shield wire, insulators for shield wire and for OPGW, hardware assemblies and line accessories for shield wire and for OPGW, grounding materials, fiber optic transmission system Equipment, and other Equipment manufactured by regular manufacturers of excellent reputation having significant technical knowledge and at least three (3) years experience, in the design, manufacture and testing of such Equipment, having manufacturing capacity available to perform the Work properly and expeditiously within the time specified, and having satisfactory past experience, with additional requirements as follows:
 - Manufacturers for shield wire (zinc-coated extra high strength steel wire), hardware assemblies and line accessories for shield wire and for OPGW, and non-metallic optical fiber cable (OFC) being an eligible local firm having set up a plant in Thailand

However, the Bidder may propose any qualified local manufacturer who does not have experience in design, manufacture and testing as well as a record of successful operation/use of his Equipment as specified above but has obtained special permission from EGAT for manufacture and/or fabrication of the specific Equipment within the scope specified in the letter of permission issued by EGAT, or propose any local manufacturer who is in the list of Eligible Local Manufacturers Accepted by EGAT as shown herein at the end of this Section.

In the event that the Bidder proposes the Equipment of the manufacturer who, at the time of bidding, fails to meet with requirements of any contract(s) with EGAT regarding major defects or malfunctioning of such Equipment, and such failure has not yet satisfactorily been proved to and/or settled with EGAT, EGAT reserves the right to reject this Bid.

This eligibility will not be applicable for any Equipment which is not required under this Invitation.

- c. Proposing reputable subcontractors, for the portion of the Work to be subcontracted, having adequate technical knowledge, ability and capacity and practical experience to perform such work. If any proposed subcontractor(s) is (are) not qualified in the opinion of EGAT, the Bidder is required to select other subcontractor(s) at his own cost to the satisfaction of EGAT.
- d. Having 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 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 pending claim of the Bidder.
- e. Himself or his subcontractors, at the time of submitting this proposal, not carrying excessive work or not being in a default position with respect to work with EGAT. Unsatisfactory past performance on contract awarded by EGAT may be a sufficient reason of being disqualified.

Reference records of either the parent or affiliated companies shall not be considered as the records of such Bidder or manufacturers.

EGAT Accepted Bidders List
for Supply and Construction of Transmission Line
500 kV Transmission Line with Four-bundled Conductor

No.	Bidder/Country
1	Consortium of J-Power Systems Corporation and Thai Sumiden Engineering and Construction Co., Ltd. (J-Power Systems Corporation / Japan and TSEC (Thailand) Co., Ltd. / Thailand)
2	Fujikura Ltd. / Japan
3	The Consortium of Kalpataru and CHC (Kalpataru Power Transmission Ltd. / India and CHC Engineering Co., Ltd. / Thailand)
4	DEMCO-COBRA-RCR CONSORTIUM (Demco Public Company Limited / Thailand, Cobra Instalaciones Y Servicios, S.A. / Spain and RCR Company Limited / Thailand)
5	DEMCO-COBRA Consortium (Demco Public Co., Ltd. / Thailand and Cobra Instalaciones Y Servicios, S.A. / Spain)
6	KEC INTERNATIONAL LIMITED / India
7	LARSEN & TOUBRO LIMITED / India
8	SEPCO1 Electric Power Construction Corporation / China
9	THE CONSORTIUM OF PRECISE SYSTEM AND PROJECT CO., LTD AND THAI SUMIDEN ENGINEERING AND CONSTRUCTION CO., LTD. (PRECISE SYSTEM AND PROJECT CO., LTD / Thailand and TSEC (THAILAND) CO., LTD. / Thailand)
10	Hyundai Engineering & Construction Co., Ltd. / Korea
11	RCR Co., Ltd. / Thailand
12	The Joint Venture of Hydrochina International Engineering Co., Ltd. and Benyapha Powerline Co., Ltd. and SEPCO1 Electric Power Construction Corporation (Hydrochina International Engineering Co., Ltd. / China, Benyapha Powerline Co., Ltd. / Thailand and SEPCO1 Electric Power Construction Corporation / China)
13	TPL-TEDA Consortium (TATA Projects Limited / India and TEDA Company Limited / Thailand)

เอกสารควบคุม

รับรองสำเนาโดย ทพอ-ส. กสส-ส. อวส.

ก่อนนำไปใช้งาน

-1-

ต้องตรวจสอบ Revision ล่าสุด

ฝ่ายวิศวกรรมระบบส่ง กฟผ.

500 kV T/L

January 2021

No.	Bidder/Country
14	Joint Venture of SCL and Benyapha and SEPCO1 (Sinohydro (Thailand) Co., Ltd. / Thailand and Benyapha Powerline Co., Ltd. / Thailand and SEPCO1 Electric Power Construction Corporation / China)
15	The Consortium of Kalpataru Power Transmission Limited, Precise System and Project Company Limited and Thai Sumiden Engineering and Construction Company Limited (Kalpataru Power Transmission Limited / India, Precise System and Project Company Limited / Thailand and TSEC (Thailand) Co., Ltd. / Thailand)
16	Consortium of Loxley, Larsen & Toubro and Sri U-Thong (Loxley Public Company Limited / Thailand, Larsen & Toubro Limited / India and Sri U-Thong Limited / Thailand)
17	Demco - RCR CONSORTIUM (Demco Public Company Limited / Thailand and RCR Company Limited / Thailand)
18	Joint Venture of XD-HYPEC-SCL-TNP (XIAN ELECTRIC ENGINEERING CO., LTD. / China, HUBEI HONGYUAN POWER ENGINEERING CO., LTD. / China, SINOHYDRO (THAILAND) CO., LTD. / Thailand and TNP POWER THAI CO., LTD. / Thailand)
19	Consortium of Larsen & Toubro Limited and Sri U-Thong Limited (Larsen & Toubro Limited / India and Sri U-Thong Limited / Thailand)
20	CONSORTIUM OF LARSEN & TOUBRO, LPS AND SRI U-THONG (LARSEN & TOUBRO LIMITED / India and LOXLEY POWER SYSTEM CO., LTD. / Thailand and Sri U-Thong Limited / Thailand)
21	JOINT VENTURE OF STC, XD AND BENYAPHA (SINOHYDRO (THAILAND) CO., LTD. / Thailand, XIAN ELECTRIC ENGINEERING CO., LTD. / China and BENYAPHA POWERLINE CO., LTD. / Thailand)
22	TSEC (Thailand) Co., Ltd. / Thailand
23	JOINT VENTURE OF XD AND STC (Xian Electric Engineering Co., Ltd / China and Sinohydro (Thailand) Co., Ltd. / Thailand)
24	Sri U-Thong Limited / Thailand
25	Henan Electric Power Transmission & Transformation Construction Co., Ltd. / China
26	Kalpataru Power Transmission Limited / India

เอกสารควบคุม

รับรองสำเนาโดย **ทพอ.ส. กสิศ.ส. อวส.**
ก่อนนำไปใช้งาน
ต้องตรวจสอบ Revision ล่าสุด
ฝ่ายวิศวกรรมระบบส่ง กฟผ.

500 kV T/L

-2-

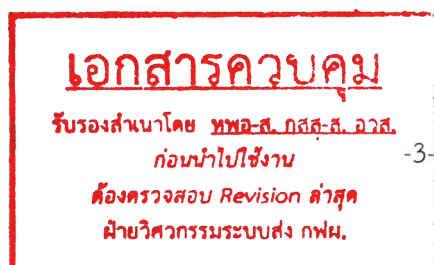
January 2021

No.	Bidder/Country
27	HS Consortium (Hydro Engineering Co., Ltd. / Thailand and Sinotec Co., Ltd. / China)
28	SRI U-THONG & LPS CONSORTIUM (Sri U-Thong Limited / Thailand and Loxley Power Systems Co., Ltd. / Thailand)
29	Benyapha Power Line Co., Ltd. / Thailand
30	Joint Venture of STC and BENYAPHA (Sinohydro (Thailand) Co., Ltd. / Thailand and Benyapha Powerline Co., Ltd. / Thailand)
31	Demco Public Company Limited / Thailand
32	Joint Venture of STC-BENYAPHA-NEPC (Sinohydro (Thailand) Co., Ltd. / Thailand, Benyapha Powerline Co., Ltd. / Thailand and NEPC Power Construction Co., Ltd. / Thailand)
33	Consortium of Jiangsu Zhongtian Technology Co., Ltd. (ZTT), PNK Transmission Line Co., Ltd. (PNK) and China National Electric Engineering Co., Ltd. (CNEEC) (Jiangsu Zhongtian Technology Co., Ltd. (ZTT) / China and PNK Transmission Line Co., Ltd. (PNK) / Thailand and China National Electric Engineering Co., Ltd. (CNEEC) / China)
34	CONSORTIUM OF TSEC (THAILAND) CO., LTD. AND SRICHONLATHORN CO., LTD. (TSEC (THAILAND) CO., LTD. / Thailand and SRICHONLATHORN CO., LTD. / Thailand)
35	Sinohydro (Thailand) Co., Ltd. / Thailand
36	Teda Company Limited / Thailand
37	CHC ENGINEERING CO., LTD. / Thailand
38	Joint Venture of TBNP (TBEA CO.,LTD. / China and NAPAT POWER CO., LTD. / Thailand)
39	Tata Projects Limited / India
40	XIAN ELECTRIC ENGINEERING CO., LTD. / China

Note:

- Additionally, any Bidders named in this accepted list are allowed to form a new consortium or joint venture with other Bidders in this list.

500 kV T/L



-3-

January 2021

ELIGIBLE LOCAL MANUFACTURERS ACCEPTED BY EGAT

The following local manufacturers are eligible for proposing each specific equipment for this Invitation; provided that the scope of their offerings shall be within that specified in the Certificate of Acceptance issued by EGAT.

1) STEEL TOWERS

Ajikawa & SCI Metal Tech Co., Ltd.

49/1 Moo 9, Marppong
Phantong
Chonburi 20160
Tel : 038 451 473-6
Fax : 038 451 478

Siam Steel Tower Co., Ltd.

9/10 Moo 10 Tambol Koke-Yae
Amphur Nong Khae
Saraburi 18230, Thailand
Tel : (662) 705-8755-63
Fax : (662) 705-8765

Thai-Scandic Steel Company Limited

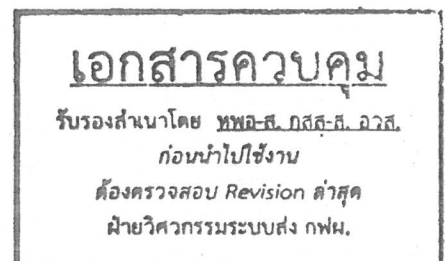
7 I-5 Road, Maptaphut Industrial Estate
Amphur Muang
Rayong 21150
Tel : (66-38) 683070
Fax : (66-38) 683065

UA WITHYA PUBLIC COMPANY LIMITED

247 Romklao Road
Saensaeb
Minburi, Bangkok 10510
Thailand
Tel : 662-543-9020-8
Fax : 662-915-2114, 915-2714, 543-9029

Demco Power Company Limited

59 Moo 1, Suanphrikthai
Muangpathumthani
Pathumthani 12000
Tel : 0 2959 5811 Ext.1612
Fax : 0 2959 5915



J

2) **HARDWARE ASSEMBLIES AND LINE ACCESSORIES FOR CONDUCTOR, OVERHEAD GROUND WIRE AND OPGW**

Preformed Line Products (Thailand) Ltd.

296 Moo 4, Lardkrabang Industrial Estate
EPZ 3 Chalongkrung Road
Lumphatew, Lardkrabang
Bangkok 10520
Tel : 0 2739 4026
Fax : 0 2326 0564

- (For 1. Hardware assemblies and line accessories (except damper) for single, twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines
2. Hardware assemblies and line accessories (except damper) for overhead ground wire and OPGW
 3. Vibration dampers for conductor, overhead ground wire and OPGW
 4. Spacer dampers and rigid spacers for twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines)

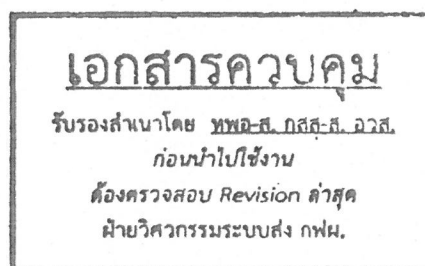
MacLean - Dulhunty Power (Thailand) Ltd.

3/2 Moo 7 Suwintawong Road
Tambon Klongluangphang
Amphur Muang Chachoengsao
Chachoengsao 24000
Tel : 038 845 675
Fax : 038 845 674

- (For 1. Hardware assemblies and line accessories (except damper) for single, twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines
2. Hardware assemblies and line accessories (except damper) for overhead ground wire and OPGW
 3. Vibration dampers for conductor, overhead ground wire and OPGW
 4. Spacer dampers and rigid spacers for twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines)

Mosdorfer (Thailand) Co., Ltd.

10/96 The Trendy Building, 6th floor
Soi Sukhumvit 13 (Sangjan)
Klong Toey Nuea, Wattana
Bangkok 10110
Tel : 02 182 8351
Fax : 02 182 8350



- (For 1. Hardware assemblies and line accessories (except damper) for single, twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines
2. Hardware assemblies and line accessories (except damper) for overhead ground wire and OPGW

3. Vibration dampers for conductor, overhead ground wire and OPGW
4. Spacer dampers and rigid spacers for twin-bundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines)

It shall be noted that the spacer damper for quad-bundled conductor for 500 kV transmission line is allowed to be initially supplied to only one contract. Any further contracts shall be allowed after the said Equipment under the first contract has been certified by a certification issued by EGAT for its successful operation in EGAT's transmission line for an appropriate period of time.

3) **OVERHEAD GROUND WIRE**

Thai Wire Products Public Company Limited

99/2 MOO 8 ZEER STREET BUILDING 7TH FL
Phahonyothin Road, Lamlookka
Pathum Thani 12130
Tel : 0 2992 6863-7
Fax : 0 2992 6870-1

USHA Siam Steel Industries Public Company Limited

209/1 K-Tower-B. 22nd Floor
Unit 3/1 Sukhumvit 21 Road (Asok)
Bangkok 10110
Tel : 0 2261 7361-4
Fax : 0 2640 8227

Charoong Thai Wire & Cable Public Company Limited

589/71 Central City Tower
Floor 12A, Bangna -Trad Road
Bangna, Bangna District
Bangkok 10260
Tel : 0 2745 6118
Fax : 0 2745 6131-32

4) **GROUNDING MATERIALS**

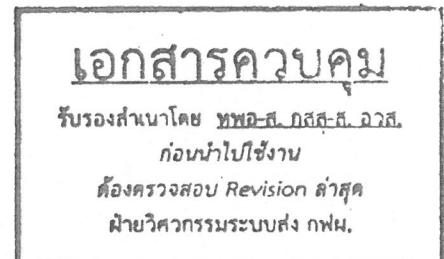
K.M.L. Technology Co., Ltd.

100/3 Thasabansongkrow Road
Ladyao, Jatujak
Bangkok 10900
Tel : 0 2954 3455
Fax : 0 2591 7891

5) **CONDUCTOR**

Bangkok Cable Co., Ltd.

187/1 Rajdamri Road
Lumpinee, Pathumwan
Bangkok 10330
Tel : 0 2254 4550-6
Fax : 0 2253 5973, 0 2253 6028, 0 2254 3859



Charoong Thai Wire & Cable Public Company Limited

589/71 Central City Tower
Floor 12A, Bangna -Trad Road
Bangna, Bangna District
Bangkok 10260
Tel : 0 2745 6118
Fax : 0 2745 6131-32

Phelps Dodge International (Thailand) Limited

16th Floor, Maneeya Center Building
518/5 Ploenchit Road
Lumpinee, Pathumwan
Bangkok 10330
Tel : 0 2652 0588, 0 2680 5862
Fax : 0 2680 5896

Thai-Yazaki Electric Wire Co., Ltd.

27th Floor, Two Pacific Place Building
142 Sukhumvit Road
Klongtoey District
Bangkok 10110
Tel : 0 2653 2550, 0 2463 0058 Ext. 342
Fax : 0 2463 6364, 0 2463 6354-5

Venine Cable Electric Wire Company Limited

88/8-9 Moo 2 Ladbualuang-Maitra Rd.
Ladbualuang, Ladbualuang
Ayutthaya 13230
Tel : 0 3528 0493
Fax : 0 3528 0494

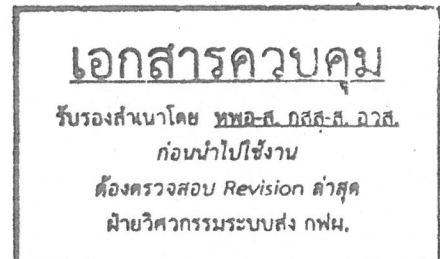
Fuhrer Wire and Cable Co., Ltd.

70 Moo 2, Bankao-Panthong Road
Panthong
Chonburi 20160
Tel : 0 3845 2906-7
Fax : 0 3845 2899
(For manufacturing of Transmission Line Conductor up to 230 kV)

6) **NON-METALLIC OPTICAL FIBER CABLE (OFC)**

Thai China Fiber Optics Co., Ltd.

488 Soi Ratchadapisek 26,
Samsennog, Huaykwang,
Bangkok 10310
Tel : 0 2975 9901
Fax : 0 2975 9925



Thai Fiber Optics Co., Ltd.

233 Moo 6, Soi Watchangrueng,
Suksawat Road,
Naiklongbangplakot, Phrasamutchedi,
Samutprakarn 10290
Tel : 0 2817 5590-3
Fax : 0 2817 5311

HBC Telecom Co., Ltd.

187/1 Rajadamri Road,
Lumpinee, Pathumwan
Bangkok 10330
Tel : 0 2650 5002 To 3 Ext.111,112
Fax : 0 2651 9261

Siam Fiber Optics Co., Ltd.

Floor 12 A, Central City Tower
589/71 Bangna-Trad Road, Km.3
Bangna, Bangna,
Bangkok 10260
Tel : 0 2745 6118-30
Fax : 0 2745 6575

เอกสารควบคุม

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

**SECTION H
ATTACHMENTS**

Attachment No. 1 : List of Equipment to be Furnished by EGAT

ATTACHMENT NO. 1

LIST OF EQUIPMENT TO BE FURNISHED BY EGAT

The Equipment listed herein shall be furnished by EGAT in Bangkok and/or its vicinity, at the point to be designated by EGAT as soon as possible after confirmation of Letter of Award of Contract. Any Equipment not listed herein but required for construction for completion of the Work shall be furnished by the Contractor at his own expenses.

<u>Item</u>	<u>Description</u>	<u>Estimated Quantity</u>
1.	1272 MCM ACSR/GA conductor as per Schedule 1E, Item 1E1.1	2,241.60 km

- Note :
1. The estimated quantity of conductor shown above is an approximate amount. The actual quantity of conductor to be furnished by EGAT will be in accordance with the actual horizontal distance of the section to be installed after checking survey and staking have been performed, Plus a Fixed extra of 1.5 percent to cover sag, terrain irregularities and wastage.
 2. The conductor furnished will have characteristics as specified in Specification No. L-500 kV, Section B : Conductor