### **EGAT's Privacy Policy**

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

Details about EGAT's Privacy Notice on Procurement, Inventory Management and Contract Administration are available for you at <a href="https://fprocurement.egat.co.th/documents/privacy\_notice\_eng.pdf">https://fprocurement.egat.co.th/documents/privacy\_notice\_eng.pdf</a> or the below QR Code.



### **The Redaction of Sensitive Personal Data**

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

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

# นโยบายคุ้มครองข้อมูลส่วนบุคคลของ กฟผ.

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) ได้ดำเนินการคุ้มครองข้อมูลส่วนบุคคลสำหรับการจัดซื้อจัดจ้าง การบริหารพัสดุ และการบริหารสัญญา เพื่อให้เป็นไปตามพระราชบัญญัติคุ้มครองข้อมูลส่วนบุคคลของ ประเทศไทย พ.ศ. 2562 (PDPA) ซึ่งมีผลบังคับใช้อย่างครบถ้วน ตั้งแต่วันที่ 1 มิถุนายน 2565 ทั้งนี้ท่าน สามารถศึกษารายละเอียดประกาศความเป็นส่วนตัว (Privacy Notice) สำหรับการจัดซื้อจัดจ้าง การบริหาร พัสดุ และการบริหารสัญญา ได้ที่ https://fprocurement.egat.co.th/documents/privacy\_Notice.pdf หรือที่ OR Code ด้านล่าง



# การขีดฆ่าข้อมูลส่วนบุคคลอ่อนไหว

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

#### Notice to Bidder

#### Subject: Online Payment for Purchase of Bidding Documents

Due to the outbreak of COVID-19 in Thailand, please be informed of the online payment for purchase of biding 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, Bangkruai 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. TIPN-L-04

Supply and Construction of Transmission Lines 500 kV Mae Moh 3 - Lamphun 3 (from Mae Moh 3 to KM. 76), 500 kV Mae Moh 3 - Tha Tako,

and 500 kV Mae Moh 3 (Existing 500 kV Conventional Substation) - Mae Moh 3 (New 500 kV GIS Substation)

Transmission System Improvement Project In Upper Northern Region To Enhance System Security

Available Duration for Purchasing: June 15, 2022 - July 18, 2022

Price of Bidding Documents: USD 500.- or TH 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) <u>before 15.00 hrs.</u> Bangkok Standard Time.
- 4) The in-charge officer will send the link for downloading the bidding documents together with the receipt to the purchaser's email address in the Registration Form, which will take approximately 3 working days.

purchaser's email ac	idress in the Registration Form, which will t	take app	proximately 3 working day	'S.
For Purchaser				TAX ID :
No. Receipt N	o. :		Date :	
Bidder's Name				
Address				1
				Country:
Name of Contact Persor	1:		Tel.	Mobile No.
Email Address :				
Local Representative				
Address				
				Tax ID :
Name of Contact Persor	1:		Tel.	Mobile No.
Email Address :				
For Procurement Office	•	Cha	inge of Bidder's Name	TAX ID:
Bidder's Letter No. :				Dated :
New Bidder's Name				
Address				
			Country:	
Name of Contact Person	າ:		Tel.	Mobile No.
Email Address :				
Contact Information of	n-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. TIPN-L-04

### Supply and Construction of Transmission Lines

500 kV Mae Moh 3 - Lamphun 3 (from Mae Moh 3 to KM. 76), 500 kV Mae Moh 3 - Tha Tako, and 500 kV Mae Moh 3 (Existing 500 kV Conventional Substation) - Mae Moh 3 (New 500 kV GIS Substation)

Transmission System Improvement Project in Upper Northern Region 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.

<u>Place of Construction</u>: from Mae Moh 3 Substation to KM.76 (approx. 74 kilometers)

from Mae Moh 3 Substation to KM. 1 (approx. 1.4 kilometer)

from Mae Moh 3 Substation (500 kV Conventional Substation) to Mae Moh 3 Substation

(New 500 kV GIS Substation) (approx. 0.1 kilometer)

### Medium Cost (including Value Added Tax and other expenses):

THB 1,166,400,000.00 (excluding cost of the Dismantled Equipment to be purchased by Bidder)

#### 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 June 15, 2022 to July 18, 2022 at USD 500.- or THB 15,000.- per copy, non-refundable, at the following address :

> International Procurement Department - Transmission Segment (Room No. 301, 3<sup>rd</sup> Floor, Tor 082 Building) Procurement and Inventory Management Division Electricity Generating Authority of Thailand Bangkruai, Nonthaburi 11130, Thailand Telephone no. 66 2436 0342

E-mail: procurement.tse@egat.co.th

Kommika Dhachaluport

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

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 shall be submitted at *Bidding Room, 1<sup>st</sup> Floor, Tor 082 Building* during 09:30 hrs. to 10:00 hrs., Bangkok Standard Time, August 18, 2022 and Technical Proposal will be opened publicly at 10:00 hrs.

ELECTRICITY GENERATING AUTHORITY OF THAILAND

June 8, 2022

Kamika Dhachalupat

(Mrs. Kannika Dhachalupat)

Chief, International Procurement Department - Transmission Segment



# ประกาศการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เรื่อง ประกวดราคาจ้าง เลขที่ TIPN-L-04 ประกวดราคา 2 ซอง (Pre-Qualification)

การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) มีความประสงค์จะจัดหาและจ้างก่อสร้างสายส่งไฟฟ้าแรงสูง 500 kV แม่เมาะ 3 - ลำพูน 3 (จากสถานีไฟฟ้าแรงสูงแม่เมาะ 3 ถึง กิโลเมตรที่ 76) จัดหาและจ้างก่อสร้างสายส่งไฟฟ้าแรงสูง 500 kV แม่เมาะ 3 - ท่าตะโก และจัดหาและจ้างก่อสร้างสายส่งไฟฟ้าแรงสูง 500 kV แม่เมาะ 3 (สถานีไฟฟ้าแรงสูง 500 kV เดิม) - แม่เมาะ 3 (สถานีไฟฟ้าแรงสูงใหม่ 500 kV GIS) สำหรับโครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคเหนือตอนบนเพื่อเสริมความมั่นคงระบบไฟฟ้า โดยทำสัญญาแบบปรับราคาได้ (ค่า k) โดยใช้งบประมาณ กฟผ.

สถานที่ก่อสร้าง: จากสถานีไฟฟ้าแรงสูงแม่เมาะ 3 ถึง กิโลเมตรที่ 76 (ระยะทางประมาณ 74 กิโลเมตร)
จากสถานีไฟฟ้าแรงสูงแม่เมาะ 3 ถึง กิโลเมตรที่ 1 (ระยะทางประมาณ 1.4 กิโลเมตร)
จากสถานีไฟฟ้าแรงสูงแม่เมาะ 3 (สถานีไฟฟ้าแรงสูง 500 kV เดิม) ถึง สถานีไฟฟ้าแรงสูงแม่เมาะ 3 (สถานีไฟฟ้าแรงสูงใหม่ 500 kV GIS) (ระยะทางประมาณ 0.1 กิโลเมตร)

# ราคากลาง (รวมภาษีมูลค่าเพิ่มและค่าใช้จ่ายอื่นๆ):

1,166,400,000.- บาท (ไม่รวมราคาอุปกรณ์รื้อถอนที่กำหนดให้ผู้เสนอราคารับซื้อจาก กฟผ.)

# <u>คุณสมบัติของผู้เสนอราคา</u>

- 1. ต้องเป็นผู้ประกอบการและพัสดุที่ผ่านการคัดเลือกคุณสมบัติเบื้องต้นตามบัญชีรายชื่อที่ระบุในเอกสารประกวดราคา
- 2. ต้องเป็นนิติบุคคลผู้มีอาชีพรับจ้างตามประกวดราคาจ้างดังกล่าว และต้องไม่เป็นผู้ทิ้งงานซึ่งปลัดกระทรวงการคลังได้แจ้งเวียนชื่อไว้ หรือต้องไม่เป็นผู้ที่ กฟผ. ห้ามติดต่อหรือห้ามเข้าเสนอราคา หรือต้องไม่เป็นผู้ที่ได้รับผลของการสั่งให้นิติบุคคลหรือบุคคลอื่นเป็น ผู้ทิ้งงานตามคำสั่ง กฟผ.
- 3. ต้องไม่เป็นผู้มีผลประโยชน์ร่วมกันกับผู้เสนอราคารายอื่น ณ วันประกาศประกวดราคาครั้งนี้เป็นต้นไป หรือต้องไม่เป็นผู้กระทำการ อันเป็นการขัดขวางการแข่งขันราคาอย่างเป็นธรรมในการดำเนินการประกวดราคาครั้งนี้
- 4. ต้องไม่เป็นที่ปรึกษาของ กฟผ. หรือมีส่วนร่วมในบริษัทที่ปรึกษาของ กฟผ. ในงานนี้ หรือต้องไม่มีผู้ปฏิบัติงาน กฟผ. เข้าไปมีส่วนร่วม ในกิจการของผู้เสนอราคา ไม่ว่าจะในฐานะผู้ถือหุ้นที่มีสิทธิควบคุมการจัดการ กรรมการ ผู้อำนวยการ ผู้จัดการ พนักงาน ลูกจ้าง ตัวแทน หรือที่ปรึกษา ยกเว้น ในกรณีที่ผู้ปฏิบัติงานได้รับคำสั่งอย่างเป็นทางการจาก กฟผ. ให้ไปปฏิบัติงานหรือเข้าร่วมในกิจการของ ผู้เสนอราคา
- ต้องไม่เป็นผู้ได้รับเอกสิทธิ์หรือความคุ้มกัน ซึ่งอาจปฏิเสธไม่ยอมขึ้นศาลไทย เว้นแต่รัฐบาลของผู้เสนอราคาได้มีคำสั่งให้สละสิทธิ์ และความคุ้มกันเช่นว่านั้น
- 6. ผู้ประสงค์เข้าประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม (Joint Venture or Consortium) จะต้องดำเนินการ ทุกขั้นตอนของการประกวดราคาในนามของกิจการร่วมค้าหรือกิจการค้าร่วม ตั้งแต่การเสนอราคาจนสิ้นสุดข้อผูกพันกับ กฟผ.



#### การขายเอกสารประกวดราคา

ผู้สนใจติดต่อขอทราบรายละเอียด เพื่อตรวจสอบคุณสมบัติของผู้เสนอราคา และขอซื้อเอกสารประกวดราคา ในราคาชุดละ 15,000.- บาท ได้ที่ แผนกจัดจ้างต่างประเทศสายงานระบบส่ง (ห้อง 301 ชั้น 3 อาคารฝ่ายจัดซื้อจัดจ้างและ บริหารพัสดุ ท.082) กองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง ฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เชิงสะพานพระราม 7 จังหวัดนนทบุรี ในวันทำการระหว่างเวลา 08:00 น. ถึง 15:00 น. ตั้งแต่วันที่ 15 มิถุนายน 2565 ถึงวันที่ 18 กรกฎาคม 2565 หรือสอบถามทางโทรศัพท์ หมายเลข 0 2436 0342 หรืออีเมล procurement.tse@egat.co.th ทั้งนี้ สามารถ download แบบฟอร์มลงทะเบียนผู้ซื้อเอกสารประกวดราคาได้ที่เว็บไซต์ http://www4.egat.co.th/fprocurement/biddingeng/

### การยื่นซองประกวดราคา

กำหนดยื่นซองข้อเสนอด้านเทคนิคพร้อมซองราคา ในวันที่ 18 สิงหาคม 2565 เวลา 09:30 น. ถึง 10:00 น. และเปิดซองข้อเสนอด้านเทคนิคเวลา 10:00 น. ณ *ห้องประกวดราคา ชั้น 1 อาคารฝ่ายจัดซื้อจัดจ้างและบริหารพัสดุ ท.082* การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย เชิงสะพานพระราม 7 จังหวัดนนทบุรี

ประกาศ ณ วันที่ 8 มิถุนายน 2565

Livelle Lupin

(นางกรรณิกา ธชาลุภัฏ) หัวหน้ากองจัดซื้อจัดจ้างต่างประเทศสายงานระบบส่ง

# ตารางแสดงวงเงินงบประมาณที่ได้รับจัดสรรและราคากลาง(ราคาอ้างอิง) ในการจัดซื้อจัดจ้างที่มิใช่งานก่อสร้าง

# 1. ชื่อโครงการ Bid No. TIPN-L-04

งานจัดหาและจ้างก่อสร้างสายส่ง 500 kV แม่เมาะ 3 – ลำพูน 3
(จาก สฟ.แม่เมาะ 3 ถึง กิโลเมตรที่ 76), สายส่ง 500 kV แม่เมาะ 3 – ท่าตะโก
และสายส่ง 500 kV แม่เมาะ 3 (สฟ. 500 kV เดิม) - แม่เมาะ 3 (สฟ.ใหม่ 500 kV GIS)
โครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคเหนือตอนบนเพื่อเสริมความมั่นคงระบบไฟฟ้า
/หน่วยงานเจ้าของโครงการ ฝ่ายแผนงานและโครงการระบบส่ง การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย

### 2. วงเงินงบประมาณที่ได้รับจัดสรร

โครงการปรับปรุงระบบส่งไฟฟ้าบริเวณภาคเหนือตอนบนเพื่อเสริมความมั่นคงระบบไฟฟ้า งบประมาณ 12,240 ล้านบาท

- วันที่กำหนดราคากลาง 17 พฤษภาคม 2565 (วันที่ รวส. อนุมัติ )
   ราคารวมภาษีมูลค่าเพิ่มและค่าใช้จ่ายอื่นๆ เป็นเงิน 1,166,400,000.00 บาท ราคา/หน่วย ตามเอกสารแนบ
- 4. แหล่งที่มาของราคากลาง

หลักเกณฑ์การกำหนดราคากลางการจัดซื้อและจัดจ้างงานก่อสร้างระบบส่งไฟฟ้าของสายงานระบบส่ง

# 5. รายชื่อเจ้าหน้าที่ผู้กำหนดราคากลาง

5.1 นางสาวสุจรรยา กิรติรัตนพฤกษ์

กวสส-ส.

5.2 นายสมปอง บวรธีระกิจชัย

หปส-ส. กวสส-ส.

5.3 นางสิรินยา ตันสัจจา

วศ.8 หปส-ส. กวสส-ส.

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

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นางสาว**อาสยา ข่า**งวิทยาการ หจตส-ห.

- 8 มิ.ย. 2565

# **DETAILS OF THE MEDIUM COST FOR BID NO. TIPN-L-04**

SCHEDULE 1:500 kV Mae Moh 3 - Lamphun 3 (from Mae Moh 3 to KM. 76) (74 km)

Description	Total
	(Baht)
1A : PRELIMINARY WORK	9,427,600.00
1B : TOWER FOUNDATIONS	168,244,900.00
1C : TOWERS	629,006,230.00
1D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	150,121,700.00
1E : CONDUCTOR AND OVERHEAD GROUND WIRE	47,469,710.00
1F : LINE ACCESSORIES	20,309,300.00
1G : GROUNDING MATERIALS	4,533,370.00
1H : OPTICAL FIBER AND LINE ACCESSORIES	14,005,060.00
1N : TEST OF EQUIPMENT	6,640,000.00
10 : SUPPLY OF SERVICE OF VEHICLES	6,552,000.00
Total for Schedule 1	1,056,309,870.00
Adjusted Price (Import Duty & Tax + VAT)	73,941,690.90
Total Price Schedule 1	1,130,251,560.90

SCHEDULE 2:500 kV Mae Moh 3 - Tha Tako (1.40 km)

Description	Total
	(Baht)
2A : PRELIMINARY WORK	120,200.00
2B : TOWER FOUNDATIONS	4,440,000.00
2C : TOWERS	17,049,700.00
2D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	6,507,500.00
2E : CONDUCTOR AND OVERHEAD GROUND WIRE	1,163,540.00
2F : LINE ACCESSORIES	420,000.00
2G : GROUNDING MATERIALS	86,420.00
2H : OPTICAL FIBER AND LINE ACCESSORIES	588,960.00
2Q : DISMANTLING WORK FOR TEMPORARY DETOUR LINES	125,440.00
Total for Schedule 2	30,501,760.00
Adjusted Price (Import Duty & Tax + VAT)	2,135,123.20
Total Price Schedule 2	32,636,883.20

SCHEDULE 3 : 500 kV Mae Moh 3 (Existing 500 kV Conventional Substation) - Mae Moh 3 (New 500 kV GIS Substation) (0.10 km)

	or embersion) (erre inn)							
Description	Total							
	(Baht)							
3D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	2,662,800.00							
3E : CONDUCTOR AND OVERHEAD GROUND WIRE	373,600.00							
3F : LINE ACCESSORIES	66,600.00							
3H : OPTICAL FIBER AND LINE ACCESSORIES	86,940.00							
Total for Schedule 3	3,189,940.00							
Adjusted Price (Import Duty & Tax + VAT)	223,295.80							
Total Price Schedule 3	3,413,235.80							

Summary Price (Schedule 1, 2 and 3)	1,090,001,570.00
Adjusted Price (Import Duty & Tax + VAT)	76,300,109.90
Total Price for Schedule 1, 2 and 3	1,166,301,679.90

EDIUM COST OF BID NO. TIPN-L-04   1,166,400,000.00
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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

our นางสาวอาสยา ช่างวิทยาการ

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8 ລີ.ຍ. 2565

		Supply of Equipment	Supply of Equipment				Local
		Foreign Supply	Local Supply	Foreign Currency	Local Currency	Local Transportation	Transportation, Construction and
Description	Currency		Ex-works Price			11 ansportation	Installation
Beschiption	Currency	CIF Thai Port	( excluding VAT )		( excluding VAT )	( excluding VAT )	( excluding VAT )
			Baht		Baht	Baht	Baht
		Amount	Amount	Amount	Amount	Amount	Amount
1A : PRELIMINARY WORK							9,427,600.00
1B : TOWER FOUNDATIONS							168,244,900.00
LG TOWTPG			<b>7</b> ( <b>9</b> 4 <b>9</b> 0 4 0 0 0 0				(5.000.100.00
IC : TOWERS			563,138,100.00				65,868,130.00
1D : INSULATOR STRING AND OVERHEAD GROUND							
WIRE ASSEMBLIES	THB	91,357,600.00	58,764,100.00				
1E : CONDUCTOR AND OVERHEAD GROUND WIRE			2,277,800.00				45,191,910.00
1F : LINE ACCESSORIES			19,910,300.00				399,000.00
					-		
0					our		
1G : GROUNDING MATERIALS			3,754,590.00	นางสา	อาสยา ช่างวิทยาการ		778,780.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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		Supply of Equipment	Supply of Equipment				Local
		Foreign Supply	Local Supply	Foreign Currency	Local Currency	Local Transportation	Transportation, Construction and
Description	Currency		Ex-works Price			Transportation	Installation
Bescription	Currency	CIF Thai Port	( excluding VAT )		( excluding VAT )	( excluding VAT )	( excluding VAT )
			Baht		Baht	Baht	Baht
		Amount	Amount	Amount	Amount	Amount	Amount
1H : OPTICAL FIBER AND LINE ACCESSORIES	THB	6,669,750.00	3,156,810.00				4,178,500.00
		.,,	-, -,-				, ,
1N: TEST OF EQUIPMENT	THB			6,640,000.00			
10 : SUPPLY OF SERVICE OF VEHICLES							6,552,000.00
	ТНВ	98,027,350.00	Baht	6,640,000.00	Baht	Baht	Baht
TOTAL PRICE		2 2,2 = 1,2 2000	651,001,700.00				300,640,820.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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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 74 km in transmission line distance)						
		lump sum	each	2,564,100.00	2,564,100.00		
1A2	Clearing right-of-way of 30 meters on each side of center line of the transmission line from Mae Moh 3 to Lamphun 3 (Approximately 74 km in transmission line distance)						
		lump sum	each	2,331,000.00	2,331,000.00		
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						
		118	bore	7,250.00	855,500.00		
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 80 bores)				,		
	$\rho$	820	m	3,470.00	2,845,400.00		

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8 ລື.ຍ. 2565

Item No.	Description	Estimated Qty.	Unit	Local Trans Construc Instal ( excludin Ba	tion and lation ng VAT )
				Unit Price	Amount
1A4	Boundary post along boundary line of right-of-way				
		396	post	2,100.00	831,600.00
	Total Price for 1A			Baht	9,427,600.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

บนนางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of Equipment		Supply of	Equipment	Local	
	Description				Foreig	gn Supply	Local	Supply	Transportation, Construction and Installation ( excluding VAT )	
Item No.		Estimated	Unit	Currency			Ex-wor	ks Price		
	P. C.				CIF 7	Thai Port	*	ing VAT )		
		Qty.					I	aht	Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B1	Foundation for tower type DQV3									
1B1.1	Pad Foundation type CS	15	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,123,500.00	16,852,500.00
1B1.2	Pad Foundation type CIII	20	tower		XXXXX	XXXXX	XXXXX	XXXXX	976,500.00	19,530,000.00
1B1.3	Pad Foundation type CIV	50	tower		XXXXX	XXXXX	XXXXX	XXXXX	682,500.00	34,125,000.00
1B1.4	Pad Foundation type CV	70	tower		XXXXX	XXXXX	XXXXX	XXXXX	529,200.00	37,044,000.00
1B1.5	Pile foundation type 6-Pile Cluster									
	(exclusive of cost of piles and pile driving)									
		2	tower		XXXXX	XXXXX	XXXXX	XXXXX	462,000.00	924,000.00
1B1.6	Pile foundation type 9-Pile Cluster								,	,
	(exclusive of cost of piles and pile driving)									
		1	tower		XXXXX	XXXXX	XXXXX	XXXXX	665,700.00	665,700.00
1B2	Foundation for tower type DQV9									
1B2.1	Pad Foundation type CIII	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,092,000.00	1,092,000.00
1B2.2	Foundation for tower type DQTR									
1B2.3	Pad Foundation type CIII									2= ( = 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	()	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	976,500.00	976,500.00
1B2.4	Pad Foundation type CIV นางสดารัตน์ ไชยพันธ์	1	tower		XXXXX	Ovv XXXXX วาสยา ช่างวิทยาการ	XXXXX	XXXXX	705,600.00	705,600.00

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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					Supply of	Equipment	Supply of	Equipment	Local Transportation, Construction and	
					Foreig	n Supply	Local	Supply		
Item No.	Description	Estimated	Unit	Currency			Ex-wor	ks Price	Installation	
	•				CIF T	Thai Port	`	ng VAT )	`	ing VAT )
		Qty.			Unit Price	Amount	Baht Unit Price Amount		Baht Unit Price Amoun	
					Offit Price	Amount	Offit Price	Amount	Omit Price	Amount
1B2.5	Pad Foundation type CV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	600,600.00	600,600.00
1B3	Foundation for tower type DQT20									
1D2.1	D 15 17 00									
1B3.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,785,000.00	1,785,000.00
1B3.2	Pad Foundation type CIII	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,680,000.00	5,040,000.00
1B3.3	Pad Foundation type CIV	4	tower		XXXXX	XXXXX	XXXXX	XXXXX	1.035.300.00	4,141,200.00
1B3.4	Pad Foundation type CV	5	tower		XXXXX	XXXXX	XXXXX			4,000,500.00
1B3.5	Pile foundation type 12-Pile Cluster								,	
	(exclusive of cost of piles and pile driving)									
		1	tower		XXXXX	XXXXX	XXXXX	XXXXX	868,350.00	868,350.00
1B4	Foundation for tower type DQT40									
1B4.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,121,000.00	2,121,000.00
1B4.2	Pad Foundation type CIII	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,785,000.00	5,355,000.00
1B4.3	Pad Foundation type CIV	3	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,218,000.00	3,654,000.00
1B4.4	Pad Foundation type CV	5	tower		XXXXX	XXXXX	XXXXX	XXXXX	988,050.00	4,940,250.00

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง หจตส-ห.

8 ມື.ຍ. 2565

Rev.16

# MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	<b>Equipment</b>	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated	Unit	Currency	CIFT	Thai Port		ks Price	Insta	illation ing VAT )
		Qty.			CIF Thai Port		( excluding VAT ) Baht		`	Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B4.5	Pile foundation type 12-Pile Cluster (exclusive of cost of piles and pile driving)									
		1	tower		XXXXX	XXXXX	XXXXX	XXXXX	868,350.00	868,350.00
1B5	Foundation for tower type DQT60									
1B5.1	Pad Foundation type CS	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,509,500.00	2,509,500.00
1B5.2	Pad Foundation type CIII	2	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,152,500.00	4,305,000.00
1B5.3	Pad Foundation type CIV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,428,000.00	1,428,000.00
1B5.4	Pad Foundation type CV	2	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,144,500.00	2,289,000.00
1B5.5	Pile foundation type 12-Pile Cluster (exclusive of cost of piles and pile driving)									
		1	tower		XXXXX	XXXXX	XXXXX	XXXXX	868,350.00	868,350.00
1B5.6	Pile foundation type 16-Pile Cluster (exclusive of cost of piles and pile driving)									
		1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,140,300.00	1,140,300.00
1B6	Foundation for tower type DQT90									
1B6.1	Pad Foundation type CIII									own
	$\rho$	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	3,013,500.00	3,013,500.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

นางสาวอาสยา ช่างวิทยาการ

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		Livit Common	Supply of	Equipment	Supply of	Equipment		ocal		
					Foreig	n Supply	Local	Supply		ortation, ction and
Item No.	Description	Estimated	Unit	Currency	CIF 7	Thai Port		ks Price	Insta	illation ing VAT )
		Qty.					· ·	aht	`	Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1B7	Precast prestressed concrete piles									
	Furnishing precast prestressed concrete									
	piles min 160 cm. effective perimeter	2900	m		XXXXX	XXXXX	XXXXX	XXXXX	1,890.00	5,481,000.00
1B7.2	Installation of precast prestressed concrete piles 160 cm. effective perimeter	2600			VVVVV	XXXXX	XXXXX	VVVVV	620.00	1 (20 000 00
1B8	Additional foundation work	2000	m		XXXXX	ΛΛΛΛΛ	ΑΛΛΛΛ	XXXXX	030.00	1,638,000.00
1B8.1	Additional earth excavation and backfilling									
	including dewatering	50	cubic meter		XXXXX	XXXXX	XXXXX	XXXXX	740.00	37,000.00
1B8.2	Additional ordinary concrete work including forms									
		20	cubic meter		XXXXX	XXXXX	XXXXX	XXXXX	11,550.00	231,000.00
1B8.3	Additional steel reinforcement bars	0.5	ton		XXXXX	XXXXX	XXXXX	XXXXX	29,400.00	14,700.00
							Baht		Baht	
	Total Price for 1B									168,244,900.00
										our

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

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					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		( exclud	rks Price ing VAT ) Baht	Installation ( excluding VAT Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C1	Tower Type DQV3									
1C1.1	Basic body (500-4x1272 DQV3)	158	body		XXXXX	XXXXX	1,811,000.00	286,138,000.00	210,250.00	33,219,500.00
1C1.2	Body extension 7.5 m (500-4x1272 DQV3)									
		80	body		XXXXX	XXXXX	462,000.00	36,960,000.00	53,640.00	4,291,200.00
1C1.3	Leg extension 1.5 m (500-4x1272 DQV3)	16	leg		XXXXX	XXXXX	23,000.00	368,000.00	2,670.00	42,720.00
1C1.4	Leg extension 3.0 m (500-4x1272 DQV3)	12	leg		XXXXX	XXXXX	30,600.00	367,200.00	3,550.00	42,600.00
1C1.5	Leg extension 4.5 m (500-4x1272 DQV3)	44	leg		XXXXX	XXXXX	37,300.00	1,641,200.00	4,330.00	190,520.00
1C1.6	Leg extension 6.0 m (500-4x1272 DQV3)	56	leg		XXXXX	XXXXX	48,100.00	2,693,600.00	5,580.00	312,480.00
1C1.7	Leg extension 7.5 m (500-4x1272 DQV3)	56	leg		XXXXX	XXXXX	63,800.00	3,572,800.00	7,410.00	414,960.00
1C1.8	Leg extension 9.0 m (500-4x1272 DQV3)	68	leg		XXXXX	XXXXX	76,100.00	5,174,800.00	8,840.00	601,120.00
1C1.9	Leg extension 10.5 m (500-4x1272 DQV3)									
		380	leg		XXXXX	XXXXX	94,600.00	35,948,000.00	10,980.00	4,172,400.00
1C1.10	Stub type CS (500-4x1272 DQV3)	60	leg		XXXXX	XXXXX	21,000.00	1,260,000.00	2,440.00	146,400.00
1C1.11	Stub type CIII (500-4x1272 DQV3)	80	leg		XXXXX	XXXXX	19,900.00	1,592,000.00	2,310.00	184,800.00
1C1.12	Stub type CIV (500-4x1272 DQV3)	200	leg		XXXXX	XXXXX	18,000.00	3,600,000.00	2,090.00	418,000.00
1C1.13	Stub type CV (500-4x1272 DQV3)	280	leg		XXXXX	XXXXX	16,900.00	4,732,000.00	1,960.00	548,800.00

งางสาวอาสยา ช่างวิทยาการ

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

					Supply of	f Equipment	Supply of	Equipment	1	ocal
					Foreig	gn Supply	Local	Supply		ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Γhai Port	Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	llation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C1.14	Stub angle (500-4x1272 DQV3) for pile foundation type 6-Pile Cluster	8	leg		XXXXX	XXXXX	11,000.00	88,000.00	1,280.00	10,240.00
1C1.15	Stub angle (500-4x1272 DQV3) for pile foundation type 9-Pile Cluster	4			XXXXX	XXXXX	11 000 00	44,000.00	1 200 00	5 120 00
1C2	Tower Type DQV9	4	leg		λλλλλ	λλλλλ	11,000.00	44,000.00	1,280.00	5,120.00
1C2.1	Basic body with 3°- 9° arm (500-4x1272 DQV9(9))									
		1	body		XXXXX	XXXXX	2,227,000.00	2,227,000.00	258,550.00	258,550.00
1C2.2	Leg extension 1.5 m (500-4x1272 DQV9)	4	leg		XXXXX	XXXXX	29,000.00	116,000.00	3,370.00	13,480.00
1C2.3	Stub type CIII (500-4x1272 DQV9(9))	4	leg		XXXXX	XXXXX	25,300.00	101,200.00	2,940.00	11,760.00
1C3	Tower Type DQTR							·		
1C3.1	Basic body (500-4x1272 DQTR)	3	body		XXXXX	XXXXX	2,805,000.00	8,415,000.00	325,650.00	976,950.00
1C3.2	Body extension 7.5 m (500-4x1272 DQTR)									
		3	body		XXXXX	XXXXX	880,000.00	2,640,000.00	102,170.00	306,510.00
1C3.3	Leg extension 9.0 m (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	130,000.00	520,000.00	15,090.00	60,360.00
1C3.4	Leg extension 10.5 m (500-4x1272 DQTR)									
	our di	8	leg		XXXXX	XXXXX	147,000.00	1,176,000.00	17,070.00	136,560.00

นางสาวอาสยา ช่างวิทยาการ

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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17 May 2022

- Project 1-1C10 -

TIPN-L-04-1 (500 kV LN3-MM3 (From MM3 to KM 76))

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated	Unit	Currency			Ex-wo	rks Price	Installation	
	I				CIF Thai Port		( excluding VAT )		( excluding VAT )	
		Qty.			**			Baht		Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C3.5	Stub type CIII (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	19,400.00	77,600.00	2,250.00	9,000.00
1C3.6	Stub type CIV (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	17,200.00	68,800.00	2,000.00	8,000.00
1C3.7	Stub type CV (500-4x1272 DQTR)	4	leg		XXXXX	XXXXX	15,700.00	62,800.00	1,820.00	7,280.00
1C4	Tower Type DQT20									
1C4.1	Basic body (500-4x1272 DQT20)	14	body		XXXXX	XXXXX	3,120,000.00	43,680,000.00	362,220.00	5,071,080.00
1C4.2	Leg extension 6.0 m (500-4x1272 DQT20)									
		8	leg		XXXXX	XXXXX	83,100.00	664,800.00	9,650.00	77,200.00
1C4.3	Leg extension 7.5 m (500-4x1272 DQT20)									
		4	leg		XXXXX	XXXXX	103,000.00	412,000.00	11,960.00	47,840.00
1C4.4	Leg extension 9.0 m (500-4x1272 DQT20)									
		4	leg		XXXXX	XXXXX	131,000.00	524,000.00	15,210.00	60,840.00
1C4.5	Leg extension 10.5 m (500-4x1272 DQT20)									
		40	leg		XXXXX	XXXXX	163,000.00	6,520,000.00	18,920.00	756,800.00
1C4.6	Stub type CS (500-4x1272 DQT20)	4	leg		XXXXX	XXXXX	42,400.00	169,600.00	4,920.00	19,680.00
1C4.7	Stub type CIII (500-4x1272 DQT20)	12	leg		XXXXX	XXXXX	42,400.00	508,800.00	4,920.00	59,040.00
1C4.8	Stub type CIV (500-4x1272 DQT20)	16	leg		XXXXX	XXXXX	38,300.00	612,800.00	4,450.00	71,200.00

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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- Project 1-1C11 -

					Supply of Equipment Foreign Supply	Supply of	Equipment		ocal	
					Foreig	n Supply	Local	Supply		ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Thai Port	( exclud	rks Price ing VAT ) aht	Installation ( excluding VAT  Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C4.9	Stub type CV (500-4x1272 DQT20)	20	leg		XXXXX	XXXXX	36,600.00	732,000.00	4,250.00	85,000.00
1C4.10	Stub angle (500-4x1272 DQT20) for pile foundation type 12-Pile Cluster	4	leg		XXXXX	XXXXX	21,000.00	84,000.00	2,440.00	9,760.00
1C5	Tower Type DQT40						,			
1C5.1	Basic body (500-4x1272 DQT40)	13	body		XXXXX	XXXXX	3,635,000.00	47,255,000.00	422,010.00	5,486,130.00
1C5.2	Leg extension 4.5 m (500-4x1272 DQT40)									
		4	leg		XXXXX	XXXXX	78,100.00	312,400.00	9,070.00	36,280.00
1C5.3	Leg extension 6.0 m (500-4x1272 DQT40)									
		4	leg		XXXXX	XXXXX	101,000.00	404,000.00	11,730.00	46,920.00
1C5.4	Leg extension 7.5 m (500-4x1272 DQT40)									
		8	leg		XXXXX	XXXXX	123,000.00	984,000.00	14,280.00	114,240.00
1C5.5	Leg extension 9.0 m (500-4x1272 DQT40)									
		4	leg		XXXXX	XXXXX	162,000.00	648,000.00	18,810.00	75,240.00
1C5.6	Leg extension 10.5 m (500-4x1272 DQT40)								,	
		32	leg		XXXXX	XXXXX	193,000.00	6,176,000.00	22,410.00	717,120.00
1C5.7	Stub type CS (500-4x1272 DQT40)	4	leg		XXXXX	XXXXX	50,100.00	200,400.00	5,820.00	23,280.00
1C5.8	Stub type CIII (500-4x1272 DQT40)	12	leg		XXXXX	XXXXX	50,100.00	601,200.00	5,820.00	69,840.00

- Project 1-1C12 -

นางสาวอาสยา ช่างวิทยาการ

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

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					Foreig	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated	Unit	Currency			Ex-wo	rks Price		llation
	2 total pixels				CIF Thai Port		,	ing VAT )	( excluding VA	
		Qty.			1			Baht		Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Stub type CIV (500-4x1272 DQT40)	12	leg		XXXXX	XXXXX	45,400.00	544,800.00	5,270.00	63,240.00
1C5.10	Stub type CV (500-4x1272 DQT40)	20	leg		XXXXX	XXXXX	42,200.00	844,000.00	4,900.00	98,000.00
1C5.11	Stub angle (500-4x1272 DQT40) for pile									
	foundation type 12-Pile Cluster	4	leg		XXXXX	XXXXX	28,000.00	112,000.00	3,250.00	13,000.00
1C6	Tower Type DQT60									
1C6.1	Basic body (500-4x1272 DQT60)	8	body		XXXXX	XXXXX	4,520,000.00	36,160,000.00	524,760.00	4,198,080.00
1C6.2	Leg extension 3.0 m (500-4x1272 DQT60)									
		4	leg		XXXXX	XXXXX	86,200.00	344,800.00	10,010.00	40,040.00
1C6.3	Leg extension 4.5 m (500-4x1272 DQT60)									
		4	leg		XXXXX	XXXXX	116,000.00	464,000.00	13,470.00	53,880.00
1C6.4	Leg extension 6.0 m (500-4x1272 DQT60)									
		4	leg		XXXXX	XXXXX	128,000.00	512,000.00	14,860.00	59,440.00
1C6.5	Leg extension 10.5 m (500-4x1272 DQT60)									
		20	leg		XXXXX	XXXXX	225,000.00	4,500,000.00	26,120.00	522,400.00
	Stub type CS (500-4x1272 DQT60)	4	leg		XXXXX	XXXXX	52,900.00	211,600.00	6,140.00	24,560.00
1C6.7	Stub type CIII (500-4x1272 DQT60)	8	leg		XXXXX	XXXXX	52,900.00	423,200.00	6,140.00	49,120.00

บางสาวอาสยา ช่างวิทยาการ

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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- Project 1-1C13 -

TIPN-L-04-1 (500 kV LN3-MM3 (From MM3 to KM 76))

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		( exclud	rks Price ing VAT ) saht	Insta ( exclud	Ilation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C6.8	Stub type CIV (500-4x1272 DQT60)									
		4	leg		XXXXX	XXXXX	49,700.00	198,800.00	5,770.00	23,080.00
1C6.9	Stub type CV (500-4x1272 DQT60)									
		8	leg		XXXXX	XXXXX	46,600.00	372,800.00	5,410.00	43,280.00
1C6.10	Stub angle (500-4x1272 DQT60) for pile foundation type 12-Pile Cluster	4	log		XXXXX	XXXXX	29,000.00	116,000.00	3,370.00	13,480.00
1C6.11	Stub angle (500-4x1272 DQT60) for pile	4	leg		ΛΛΛΛΛ	ΛΛΛΛΛ	29,000.00	110,000.00	3,370.00	13,460.00
100.11	foundation type 16-Pile Cluster									
		4	leg		XXXXX	XXXXX	29,000.00	116,000.00	3,370.00	13,480.00
1C7	Tower Type DQT90									
1C7.1	Basic body (500-4x1272 DQT90)	1	body		XXXXX	XXXXX	6,702,000.00	6,702,000.00	778,090.00	778,090.00
1C7.2	Leg extension 10.5 m (500-4x1272 DQT90)									
		4	leg		XXXXX	XXXXX	287,000.00	1,148,000.00	33,320.00	133,280.00
1C7.3	Stub type CIII (500-4x1272 DQT90)	4	leg		XXXXX	XXXXX	58,400.00	233,600.00	6,780.00	27,120.00
1C8	Tower signs									
1C8.1	Aerial patrol signs	72	piece		XXXXX	XXXXX	included in installation work	included in installation work	3,150.00	226,800.00

บางสุดารัตน์ ไชยพันธุ์
 นางสาวอาสยา ช่างวิทยาการ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	llation ing VAT ) aht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1C8.2	Phasing signs (3 pieces per set)	14	set		XXXXX	XXXXX	included in installation work	included in installation work	6,830.00	95,620.00
1C8.3	Danger signs	20	piece		XXXXX	XXXXX	included in installation work	included in installation work	3,680.00	73,600.00
1C8.4	Warning signs	20	piece		XXXXX	XXXXX	included in installation work	included in installation work	3,680.00	73,600.00
1C9	Additional tower work									
1C9.1	Additional galvanized steel work	1	ton		XXXXX	XXXXX	61,500.00	61,500.00	7,140.00	7,140.00
1C9.2	Additional paint with two coats of bituminous paint	1	ton		AAAAA	AAAAA	01,300.00	01,500.00	7,140.00	7,140.00
		10	sq. meter		XXXXX	XXXXX			2,100.00	21,000.00
							D 14		D. L.	
	Total Price for 1C						Baht	563,138,100.00	Baht	65,868,130.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

บางสาวอาสยา ช่างวิทยาการ
 ขางสาวอาสยา ช่างวิทยาการ

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ection and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Thai Port	( exclud	rks Price ing VAT ) Baht	Insta ( exclud	allation ling VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Anti-Polluted Zone									
1D1	45°/45° V-string suspension Assembly 3 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	162	set		XXXXX	XXXXX	34,000.00	5,508,000.00	included in stringing work	included in stringing work
1D2	Deadend Assembly 13 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	30	set		XXXXX	XXXXX	43,000.00	1,290,000.00	included in stringing work	included in stringing work
1D3	Deadend Assembly 13A for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	12	set		XXXXX	XXXXX	43,000.00	516,000.00	included in stringing work	included in stringing work
1D4	Deadend Assembly 14 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	36	set		XXXXX	XXXXX	43,000.00	1,548,000.00	included in stringing work	included in stringing work
1D5	Deadend Assembly 15A for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	12	set		XXXXX	XXXXX	45,000.00	540,000.00	included in stringing work	included in stringing work
1D6	Jumper support Assembly 17 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	54	set		XXXXX	XXXXX	25,000.00	1,350,000.00	included in stringing work	0~~ าลอเสยกะห่วงวิทยา

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Thai Port	( exclud	rks Price ing VAT ) Baht	Installatio ( excluding V Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1D7	Shield wire suspension (Insulated) Assembly 1A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	22	set		XXXXX	XXXXX	2,900.00	63,800.00	included in stringing work	included in stringing wor
1D8	Shield wire suspension (Grounded) Assembly 2A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	5	set		XXXXX	XXXXX	2,300.00	11,500.00	included in stringing work	included in stringing wor
1D9	Shield wire deadend (Insulated) Assembly 11A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	13	set		XXXXX	XXXXX	4,900.00	63,700.00	included in stringing work	included in stringing wor
1D10	Shield wire deadend (Grounded) Assembly 12A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	5	set		XXXXX	XXXXX	1,700.00	8,500.00	included in stringing work	included in stringing wor
1D11	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load). In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 9750 discs, b. Light grey glaze 804 discs	10554	disc	ТНВ	1,200.00	12,664,800.00		<b>ร</b> ์ รัตน์ ไขยพันธุ์		Trelateter trelatecom

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หจตส-ห.

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply		ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1D12	Fog type insulator (545 mm minimum leakage distance and 22,600 kg minimum electro-mechanical failing load). In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 3,900 discs, b. Light grey glaze 312 discs	4212	disc	ТНВ	1,600.00	6,739,200.00			included in stringing work	included in stringing work
1D13	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load) (to be used with item 1D9, in case of porcelain insulator the color shall be Brown glaze)	13	disc	ТНВ	1,200.00	15,600.00			included in stringing work	included in stringing work
1D14	Insulator strain type ANSI CLASS 54-2 (to be used with item 1D7)	22	disc	ТНВ	400.00	8,800.00			included in stringing work	included in stringing work
	Non Anti-Polluted Zone									
1D15	45°/45° V-string suspension Assembly 3 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	804	set		XXXXX	XXXXX	33,000.00	26,532,000.00	included in stringing work	included in stringing work

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บางสาวอาสยา ช่างวิทยาการ

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<u> </u>					Supply of	f Equipment	Supply of	f Equipment	Local		
1 '		1			Foreig	gn Supply	Local	l Supply	_	oortation, action and	
Item No.	. Description	Estimated Qty.	Unit	Currency	CIF T	Гhai Port	Ex-works Price ( excluding VAT ) Baht		Insta ( excludi	allation ding VAT )	
l!		'	<b></b> '	[	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	
	35°/55° V-string suspension Assembly 5A for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	3	set		XXXXX	XXXXX	44,000.00	132,000.00	included in stringing worl	included in stringing work	
	35°/55° V-string suspension Assembly 19A						,.		illerance in straight	menace in suringing	
	for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	3	set		XXXXX	XXXXX	47,000.00	141,000.00	included in stringing work	t included in stringing work	
1D18	Deadend Assembly 13 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	72	set		XXXXX	XXXXX	42,000.00	3,024,000.00	included in stringing worl	k included in stringing work	
1D19	Deadend Assembly 14 for four-bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	288	set		XXXXX	XXXXX	42,000.00	12,096,000.00	included in stringing worl	k included in stringing work	
	Jumper support Assembly 17 for four- bundled 1272 MCM ACSR/GA conductor (Excluding insulator)	225					2:000.00	- :00 000 00			
<u></u> '		225	set		XXXXX	XXXXX	24,000.00	5,400,000.00	included in stringing work	k included in stringing work	
	Shield wire suspension (Insulated) Assembly 1 for 3/8" extra high strength galvanized steel wire (Excluding vibration										
	damper and insulator)	113	set		XXXXX	XXXXX	2,400.00	271,200.00		included in stringing work	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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					Supply of	f Equipment	Supply of	Equipment	Local	
					Foreign Supply		Local	Supply	Transportation, Construction and	
Item No.	Description	Estimated Unit Curre		Currency	CIF Thai Port		( exclud	rks Price ing VAT ) aht	Installation ( excluding VAT ) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1D22	Shield wire suspension (Grounded) Assembly 2 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	22	set		XXXXX	XXXXX	1,800.00	39,600.00	included in stringing work	included in stringing work
1D23	Shield wire deadend (Insulated) Assembly 11 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	49	set		XXXXX	XXXXX	4,400.00	215,600.00	included in stringing work	included in stringing work
1D24	Shield wire deadend (Grounded) Assembly 12 for 3/8" extra high strength galvanized steel wire (Excluding vibration damper and insulator)	11	set		XXXXX	XXXXX	1,200.00	13,200.00	included in stringing work	included in stringing work
1D25	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 44,793 discs, b. Light grey glaze 3,714 discs	40.505			1 000 00	40.505.000.00				
		48507	disc	THB	1,000.00	48,507,000.00			included in stringing work	included in stringing work

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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Rev.16

# MEDIUM COST FOR BID NO. TIPN-L-04

				t Currency	Supply of	f Equipment	Supply of	Equipment	Local	
		Estimated Qty.	Unit		Foreign Supply  CIF Thai Port		Local	Supply	_	ortation, ction and
Item No.	Description						Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	llation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	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 18,000 discs, b. Light grey glaze 1,440 discs	19440	disc	ТНВ	1,200.00	23,328,000.00			included in stringing work	included in stringing work
	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin (to be used with item 1D23, in case of porcelain insulator the color shall be Brown glaze)	49	disc	ТНВ	1,000.00	49,000.00			included in stringing work	included in stringing work
	Insulator strain type ANSI CLASS 54-2 (to be used with item 1D21)	113	disc	THB	400.00	45,200.00			included in stringing work	included in stringing work
	Total Price for 1D			ТНВ		91,357,600.00	Baht	58,764,100.00	Baht	
	Total Price for 1D							58,764,100.00		

- Project 1-1C21 -

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บางสาวอาสยา ช่างวิทยาการ
 ขางสาวอาสยา ช่างวิทยาการ

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					Supply of Equipment		Supply of	Equipment	Local Transportation, Construction and	
					Foreig	Foreign Supply		Supply		
Item No.	Description	Estimated Qty.	Unit Currency		CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT ) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1E1	1272 MCM ACSR/AW conductor									
1E1.1	1272 MCM ACSR/AW Conductor, furnishing conductor for item 1E1.2 and 1E1.3 (to be supplied by EGAT, see Article F-3), approximately 12.2 kilometers in									
	transmission line distance		km		XXXXX	XXXXX	XXXXX	XXXXX	included in stringing work	included in stringing work
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 the existing Tower No. 1/2 type DQT90 at KM.1 approaching the Mae Moh 3 Substation to the new Tower No. 13/2 type DQT60 at KM.14 (Including connecting loop of existing Tower No. 1/2 and of the new Tower No. 13/2 to be 500 kV Mae Moh 3 - Lamphun 3 Transmission									
	Line)	12.1	km		XXXXX	XXXXX	XXXXX	XXXXX	537,600.00	6,504,960.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

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นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

				t Currency	Supply of	Equipment	Supply of	Equipment	Local Transportation, Construction and	
			Unit		Foreig	n Supply	Local	Supply		
Item No.	Description	Estimated			CIF Thai Port		Ex-works Price		Installation	
	r						( excluding VAT )		( excluding VAT )	
		Qty.					Ī	aht		aht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1E1.3	Installation of conductor, double circuit, 3									
	phase, four-bundled conductor per phase,									
	between the deadend tower type DQT90 and									
	take-off structure at Mae Moh 3 Substation									
	(500 kV GIS Substation), approximately 0.1									
	kilometer in transmission line distance									
		lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	335,000.00	335,000.00
1E2	Handling and transportation of empty									
	returnable metal reel (of 1272 MCM									
	ACSR/AW conductor) from the site to									
	Bangkok and/or its vicinity, at the point									
	designated by EGAT (See Article F-3 and F-4)									
	, , , , , , , , , , , , , , , , , , ,	124	reel		XXXXX	XXXXX	XXXXX	XXXXX	4,200.00	520,800.00
1E3	7 No. 8 AWG Alumimun-Clad steel wire									
1E3.1	7 No. 8 AWG Alumimun-Clad 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%)	12.4	km				32,000.00	396,800.00	included in stringing work	included in stringing work

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 ขางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

8 ມີ.ຍ. 2565

					Supply of	f Equipment	Supply of	Equipment	Local	
			Unit	Currency	Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated					Ex-works Price		Installation	
	-				CIF 1	CIF Thai Port		ing VAT )	( excluding VAT )	
		Qty.			** ** **			Baht		Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1E3.2	Stringing of one shield wire by controlled									
	tension method, measured based on									
	horizontal distance of line route from the									
	Tower No. 1/2 type DQT90 at KM.1 approaching the Mae Moh 3 Substation to									
	the Tower No. 13/2 type DQT60 at KM.14									
		12.1	km		XXXXX	XXXXX	XXXXX	XXXXX	26,300.00	318,230.00
1E3.3	Installation of three 7 No. 8 AWG									
	Alumimun-Clas steel wire between the deadend tower type DQT90 and take-off-									
	structure at Mae Moh 3 Substation (500 kV									
	GIS Substation) approximately 0.1									
	kilometer in transmission line distance									
		lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	26,300.00	26,300.00
1E4	1272 MCM ACSR/GA conductor									
1E4.1	1272 MCM ACSR/GA Conductor,									
	furnishing conductor for item 1E4.2 (to be									
	supplied by EGAT, see Article F-3),									
	approximately 61.8 kilometers in									
	transmission line distance		km		XXXXX	XXXXX	XXXXX	XXXXX	included in stringing work	included in stringing work

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หจตส-ห.

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17 May 2022

8 มิ.ย. 2565 TIPN-L-04-1 (500 kV LN3-MM3 (From MM3 to KM 76))

	Description		d Unit	Currency	Supply of	f Equipment	Supply of	Equipment	Local	
		Estimated Qty.			Foreign Supply  CIF Thai Port		Local Supply Ex-works Price ( excluding VAT ) Baht		Transportation, Construction and	
Item No.									Insta ( exclud	allation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1E4.2	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 Tower No. 13/2 type DQT60 at KM.14 to the Tower No. 200 type DQT60 at KM.76 (Including connecting loop of Tower No. 200 at KM.76 to be 500 kV Mae Moh 3 - Lamphun 3 Transmission Line)									
		61.8	km		XXXXX	XXXXX	XXXXX	XXXXX	537,600.00	33,223,680.00
1E5	Handling and transportation of empty returnable metal reel (of 1272 MCM ACSR/GA conductor) from the site to Bangkok and/or its vicinity, at the point designated by EGAT (See Article F-3 and F-4)									orm
	l d	628	reel		XXXXX	XXXXX	XXXXX	XXXXX	4,200.00	2,637,600.00

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			Unit	Currency	Supply of	f Equipment	Supply of	Equipment	Local	
					Foreign Supply  CIF Thai Port		Local	Supply	Transportation, Construction and	
Item No.	em No. Description	Estimated Qty.					Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT ) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1E6	3/8" Extra high strength galvanized steel wire									
1E6.1	3/8" Extra high strength galvanized steel wire (Furnishing for item 1E6.2) based on linear length (Linear length = No.of shield wire x horizontal distance of line route + 1.5%)	62.7	km		XXXXX	XXXXX	30,000.00	1,881,000.00		
1E6.2	Stringing of one shield wire by controlled tension method, measured based on horizontal distance of line route from Tower No. 13/2 type DQT60 at KM.14 to the Tower No. 200 type DQT60 at KM.76	61.8	km		XXXXX	XXXXX	XXXXX			1,625,340.00
							Baht		Baht	
	Total Price for 1E							2,277,800.00		45,191,910.00

- Project 1-1C26 -

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF 7	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Anti-Polluted Zone									
1F1	Full tension splices for 1272 MCM ACSR/AW conductor	40			***********	***********	1 400 00	( <b>7.2</b> 00.00		
1F2	Full tongion galions for 7 No 8 aluminum	48	set		XXXXX	XXXXX	1,400.00	67,200.00	included in stringing work	included in stringing work
1172	Full tension splices for 7 No.8 aluminum- clad steel shield wire	2	set		XXXXX	XXXXX	700.00	1,400.00	included in stringing work	included in stringing work
1F3	Spacer damper for four-bundled 1272 MCM ACSR/AW conductor (for double circuit, approx. 12.2 km in transmission line distance)	lump sum	each				2,928,000.00	2,928,000.00	included in stringing work	included in stringing work
1F4	Rigid spacer for four-bundled 1272 MCM ACSR/AW conductor (for jumper loop on double circuit transmission line system)	108			XXXXX	XXXXX	1,900.00	205,200.00		
1F5	Rigid spacer for two-bundled 1272 MCM ACSR/AW conductor (for jumper loop on	108	set		AAAAA	AAAAA	1,900.00	203,200.00	included in stringing work	included in stringing work
	double circuit transmission line system)	72	set		XXXXX	XXXXX	600.00	43,200.00	included in stringing work	included in stringing work
1F6	Vibration damper for 7 No.8 aluminum- clad steel shield wire									
	Λ	33	set		XXXXX	XXXXX	600.00	19,800.00	included in stringing work	included in stringing work

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					Supply of Equipment  Foreign Supply		Supply of	Equipment		ocal	
					Foreig	gn Supply	Local	Supply	_	ortation, ction and	
Item No.	Description	Estimated	Unit	Currency	CIF T	Thai Port	( exclud	rks Price ing VAT )	Insta ( exclud	Illation ing VAT )	
		Qty.						aht	Baht		
					Unit Price	Unit Price Amount		Amount	Unit Price	Amount	
1F7	Field test of spacer-damper for four-bundled 1272 MCM ACSR/AW conductor as per Article F-9.b. of the Specifications No. L-										
	500 kV	1	test		XXXXX	XXXXX	XXXXX	XXXXX	199,500.00	199,500.00	
	Non Anti-Polluted Zone										
1F8	Full tension splices for 1272 MCM ACSR/GA conductor										
		336	set		XXXXX	XXXXX	1,400.00	470,400.00	included in stringing work	included in stringing work	
1F9	Full tension splices for 3/8" extra high strength, galvanized steel shield wire	7	set		XXXXX	XXXXX	300.00	2,100.00	included in stringing work	included in stringing work	
	Spacer damper for four-bundled 1272 MCM ACSR/GA conductor (for double circuit, approx. 61.8 km in transmission line distance)							,			
		lump sum	each				14,832,000.00	14,832,000.00	included in stringing work	included in stringing work	
	Rigid spacer for four-bundled 1272 MCM ACSR/GA conductor (for jumper loop on double circuit transmission line system)										
		540	set		XXXXX	XXXXX	1,900.00	1,026,000.00	included in stringing work	included in stringing work	

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นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Thai Port	( exclud	rks Price ing VAT ) aht	Insta ( exclud	allation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Rigid spacer for two-bundled 1272 MCM ACSR/GA conductor (for jumper loop on double circuit transmission line system)	360	set		XXXXX	XXXXX	600.00	216,000.00	included in stringing work	included in stringing work
1F13	Vibration damper for 3/8" extra high strength galvanized steel shield wire	165	set		XXXXX	XXXXX	600.00	99,000.00	included in stringing work	included in stringing work
1F14	Field test of spacer-damper for four-bundled 1272 MCM ACSR/GA conductor as per Article F-9.b. of the Specifications No. L-500 kV	1	test		XXXXX	XXXXX	XXXXX	XXXXX	199,500.00	199,500.00
		1	test		7171717171	777777	71717171	71717171	177,200.00	177,200.00
	Total Price for 1F						Baht	19,910,300.00	Baht	399,000.00

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ขนางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF 7	CIF Thai Port		rks Price ing VAT ) aht	Insta ( exclud	Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Tower grounding									
1G1	No.8 AWG dead soft galvanized steel wire	3216	m				40.00	128,640.00	20.00	64,320.00
1G2	No.2 AWG solid copper-clad steel wire	18693	m				130.00	2,430,090.00	20.00	373,860.00
1G3	Exothermic connector type "CS" for cable to steel surface	804	piece				130.00	104,520.00	80.00	64,320.00
1G4	Exothermic connector type "CR1" for parallel cable to ground rod	888	piece				250.00	222,000.00	80.00	71,040.00
1G5	Exothermic connector type "CR2" for perpendicular cable to ground rod	824	piece				250.00	206,000.00	80.00	65,920.00
1G6	Exothermic connector type "CC" for cable to cable	84	piece				160.00	13,440.00	80.00	6,720.00
1G7	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel standard ground rod	888	piece				700.00	621,600.00	140.00	124,320.00
1G8	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel sectional ground rod with coupling									ort
		20	piece				750.00	15,000.00	130.00	2,600.00

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

หจตส-ห.

Rev.16

### MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		( exclud:	rks Price ing VAT ) aht	Insta ( exclud	llation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Fence/metal object grounding (to be performed at location directed by EGAT)									
1G9	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') galvanized steel standard ground rod		<b></b>				(30.00	2 700 00	150.00	000 00
1G10	Galvanized double saddle steel ground rod	6	piece				630.00	3,780.00	150.00	900.00
	clamp	6	set				330.00	1,980.00	60.00	360.00
1G11	8 mm.(5/16") 7-strand galvanized steel ground wire	30	m				60.00	1,800.00	10.00	300.00
1G12	Galvanized steel crimpet	10	set				40.00	400.00	70.00	700.00
1G13	19 mm. diameter bronze split bolt	6	set				490.00	2,940.00	70.00	420.00
1G14	9.5 mm. (3/8") galvanized steel staples	60	piece				40.00	2,400.00	50.00	3,000.00
	I	1					Baht		Baht	
	<b>Total Price for 1G</b>							3,754,590.00		778,780.00
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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	hai Port	( exclud	rks Price ing VAT ) Baht	Insta ( exclud	Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1H1	Composite overhead ground wire with 36 core optical fibers (13.5 MM) (OPGW) (referred section F-4.3)									
1H1.1	13.5mm dia. Composite Overhead Ground Wire with Optical Fiber (OPGW)	lump sum	lump sum	ТНВ	6,669,750.00	6,669,750.00			included in stringing work	included in stringing work
1H1.2	Stringing by controlled tension method, one OPGW measured based on horizontal distance of line route from Tower No.3 Type:DQT60 to KM.76 (Direction to Lamphun 3 substation)	74	km	ТНВ	XXXXX	XXXXX	XXXXX	XXXXX	56 390 00	4,172,860.00
1H1.3	Stringing by controlled tension method, one existing OPGW (SLACK SPAN) measured based on horizontal distance of line route from Tower No.1 Type:DQT90 to Lamphun 3 take-off structure at the new Mae Moh 3 substation						14444			
1H2	36-core optical fiber cable, with black and color strip(s) outer sheath, to be used for connecting joint boxes on the tower	0.1	km		Existing OPGW (SLACK SPAN)	56,400.00	5,640.00			
1H3	Warning signs requires as shown on Drawing No.TP150.1	lump sum			XXXXX	XXXXX				included in stringing work
1H4	Joint boxes for optical fiber cable	ramp sam	rump sum		MAM	MMM			included in stringing work	meraded in stringing Work
1H4.1	2-way joint box with accessories for two OPGW cables	lump sum	lump sum							
1H4.2	2-way joint box with insulator and accessories for two OPGW cables	lump sum	lump sum		C	f.			นางสาว	

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Rev.16

### MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	Equipment	Supply of	Equipment	_	ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	hai Port	( exclud	rks Price ing VAT ) aht	Insta ( exclud:	Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1H4.3	2-way joint box with insulator and accessories for OPGW cable and non-metallic optical fiber cable	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 (MM3 S/S)	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 MM3 S/S	1	set							
1H4.6	2-way joint box with insulator and accessories for OPGW and 36 core non-metallic optical fiber cable at KM.76	1	set							
1H4.7	Connecting the new OPGW cable with the existing OPGW cable on Tower No.3 type:DQT60	1	job		XXXXX	XXXXX	XXXXX	XXXXX		
1H5	Hardware assembly for OPGW from MM3 S/S to KM.14 with anti-pollution by having 30 % heavier galvanizing									
	OPGW suspension (Insulated) assembly 21 with armor rods (excluding insulator and vibration damper)	lump sum	lump sum		XXXXX	XXXXX	3,156,810.00	3,156,810.00		
1H5.2	OPGW suspension (Grounded) assembly 22 with armor rods (excluding vibration damper)	lump sum	lump sum		XXXXX	XXXXX				

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					Supply of	Equipment	Supply of	Equipment		ocal	1
,					Foreign	n Supply	Local	Supply	_	ortation, ction and	1
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	`hai Port	( exclud	rks Price ing VAT ) Baht	Insta ( exclud	Illation ing VAT ) Baht	
		<u> </u>		<u> </u>	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	1
	OPGW tension (Insulated) assembly 23 with armor rods and arcing horns (excluding insulator and vibration damper)										
		lump sum	lump sum		XXXXX	XXXXX					1
	OPGW tension (Grounded) assembly 24 with armor rods (excluding vibration damper)	lump sum	t lump sun	1	XXXXX	XXXXX					
	OPGW tension assembly with accessories and insulator to be used at take-off structure (excluding vibration damper) (MM3 S/S)	1	set		XXXXX	XXXXX					
	from KM.14 to KM.76										1
	OPGW suspension (Insulated) assembly 21 with armor rods (excluding insulator and vibration damper)	lump sum	1 lump sun	a	XXXXX	XXXXX					
	OPGW suspension (Grounded) assembly 22 with armor rods (excluding vibration damper)	lump sum	l lump sun	1	XXXXX	XXXXX					
	OPGW tension (Insulated) assembly 23 with armor rods and arcing horns (excluding insulator and vibration damper)				XXXXX	XXXXX					
	OPGW tension (Grounded) assembly 24 with armor rods (excluding vibration damper)	lump sum			XXXXX	XXXXX					
	Line accessories from MM3 S/S to KM.14 with anti-pollution by having 30 % heavier galvanizing							9	2	02	
1H6.1	Vibration damper assembly with accessories	lump sum	lump sun	1	XXXXX	XXXXX		นางสุดารัตเ ผู้อำนวยการฝ่ายวิ	17 14101	อาสยา ช่างวิทย ง	าการ

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		1 '		Ţ	Supply of	Equipment	Supply of	f Equipment		ocal
	1	1 '		<b>1</b>	Foreign	n Supply	Local	l Supply	_	portation, uction and
Item No.	. Description	Estimated Qty.	Unit	Currency	CIF T	`hai Port	( exclud	orks Price ding VAT ) Baht	Insta ( exclud:	allation ding VAT ) Baht
		<u>1</u> '	<u> </u>	<u> </u>	Unit Price	Unit Price Amount U		Amount	Unit Price	Amount
1H6.2	Parallel groove clamps	lump sum	lump sum	1						
1H6.3	Grounding clamps	lump sum	lump sur	1						
1H6.4	1-wire cleat without insulator for OPGW down-lead to joint box	lump sum	l lump sun	1						
1H6.5	2-wire cleats without insulator for OPGW down-lead to joint box	lump sum	1 lump sun	a		1				
1H6.6	6-wire cleats without insulator for OPGW down-lead to joint box	lump sum	l lump sun	a		<del></del>				
1H6.7	1-wire cleat with insulator for OPGW down-lead to joint box	lump sum	1 lump sun	n		1				
	2-wire cleats with insulator for OPGW down-lead to joint box	lump sum	l lump sun	a						
	6-wire cleats with insulator for OPGW down-lead to joint box	lump sum	l lump sun	1						
1H6.10	Jumper cleat without insulator for OPGW	lump sum	l lump sun	a		<del></del> 1				
1H6.11	Jumper cleat with insulator for OPGW	lump sum	l lump sun	a		<del></del> 1				
1H6.12	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin	lump sum				J.				orm

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ı					Supply of	Equipment	Supply of	f Equipment		ocal
!	1	1			Foreign	n Supply	Local	l Supply	_	oortation, iction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	Thai Port	( exclud	orks Price ling VAT ) Baht	Insta ( exclud	allation ling VAT ) Baht
		<u>                                      </u>			Unit Price Amount U		Unit Price	Amount	Unit Price	Amount
1H6.13	Insulator strain type ANSI CLASS 54-2	lump sum	lump sum	1						
	3/8" Extra high strength galvanized steel wire for grounding OPGW to towers	lump sum	lump sum	1	XXXXX	XXXXX				
-	from KM.14 to KM.76							1		
1H6.15	Vibration damper assembly with accessories	lump sum	lump sum	1	XXXXX	XXXXX				
1H6.16	Parallel groove clamps	lump sum	lump sum	1				1		
1H6.17	Grounding clamps	lump sum	lump sum	1						
	1-wire cleat without insulator for OPGW down-lead to joint	lump sum								
	2-wire cleats without insulator for OPGW down-lead to joint box	lump sum	lump sum	1						
	6-wire cleats without insulator for OPGW down-lead to joint box	lump sum	lump sum	1						
1H6.21	1-wire cleat with insulator for OPGW down-lead to joint box	lump sum	lump sum	1						
	2-wire cleats with insulator for OPGW down-lead to joint box	lump sum								
	6-wire cleats with insulator for OPGW down-lead to joint box	lump sum	lump sum	1	C	J.			นางสา	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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- Project 1-1C36 -

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	hai Port	( exclud	rks Price ing VAT ) aht	Insta ( exclud	llation ing VAT ) aht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1H6.24	Jumper cleat without insulator for OPGW	lump sum	lump sum							
1H6.25	Jumper cleat with insulator for OPGW	lump sum	lump sum							
1H6.26	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin	lump sum	lump sum							
1H6.27	Insulator strain type ANSI CLASS 54-2	lump sum	lump sum							
1H6.28	3/8" Extra high strength galvanized steel wire for grounding OPGW to towers	lump sum	lump sum		XXXXX	XXXXX				
1H7	Field testing for optical fiber	lump sum			XXXXX	XXXXX	XXXXX	XXXXX		
	Total Price for 1H			ТНВ		6,669,750.00	Baht	3,156,810.00	Baht	4,178,500.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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นางสาวอาสยา ช่างวิทยาการ

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Item No.	Description	Estimated Qty.	Unit	Currency	Foreign C	Currency Amount	Local Currency  ( excluding VAT )  Baht  Unit Price Amoun		
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 (for 1272 MCM ACSR/AW Conductor)				O.M. T. T. C.	THIOUN		Timount	
1N1.1	For 45°/45° V-string suspension Assembly 3	1	test	THB	240,000.00	240,000.00			
1N1.2	For Conductor deadend Assembly 13A	1	test	THB	240,000.00	240,000.00			
1N1.3	For Conductor deadend Assembly 13	1	test	THB	240,000.00	240,000.00			
1N1.4	For Conductor deadend Assembly 14	1	test	THB	240,000.00	240,000.00			
1N1.5	For Conductor deadend Assembly 15A	1	test	THB	240,000.00	240,000.00			
1N1.6	For Jumper support Assembly 17	1	test	THB	240,000.00	240,000.00			
1N2	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 (for 1272 MCM ACSR/GA Conductor)								
1N2.1	For 45°/45° V-string suspension Assembly 3	1	test	THB	240,000.00	240,000.00			
1N2.2	For 35°/55° V-string suspension Assembly 5A	1	test	THB	240,000.00	240,000.00			
1N2.3	For 35°/55° V-string suspension Assembly 19A	1	test	THB	240,000.00	240,000.00		Λ	
1N2.4	For Conductor deadend Assembly 13	1	test	THB	240,000.00	240,000.00	Ç	J.	
1N2.5	For Conductor deadend Assembly 14	1	test	THB	240,000.00	240,000.00	* · · · · · · · · · · · · · · · · · · ·	ารัตน์ ไชยพันธุ์ ฝ่ายวิศวกรรมระบบส่ง	

นางสาวอาสยา ช่างวิทยาการ

ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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Item No.	Description	Estimated Qty.	Unit	Currency	Foreign (	Currency	Local Currency  ( excluding VAT )  Baht		
					Unit Price	Amount	Unit Price	Amount	
1N2.6	For Jumper support Assembly 17	1	test	THB	240,000.00	240,000.00			
1N3	Power arc test of insulator strings in accordance with Article D-7.c.(4) of Specification No.L-500 kV								
1N3.1	For Fog type insulator (16,300 kg min. electro-mechanical failing load)	1	test	THB	550,000.00	550,000.00			
1N3.2	For Fog type insulator (22,600 kg min. electro-mechanical failing load)	1	test	THB	550,000.00	550,000.00			
1N3.3	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	THB	450,000.00	450,000.00			
1N3.4	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	450,000.00	450,000.00			
1N4	Thermal-mechanical performance test in accordance with Article D - 7.c.(5) of Specification No.L-500 kV								
1N4.1	For Fog type insulator (16,300 kg min. electro-mechanical failing load)	1	test	ТНВ	140,000.00	140,000.00			
1N4.2	For Fog type insulator (22,600 kg min. electro-mechanical failing load)	1		THB		,			
1N4.3	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	ТНВ	140,000.00	140,000.00 140,000.00			
1N4.4	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	140,000.00	140,000.00		orm	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

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Item No.	Description	Estimated Qty.	Unit	Currency	Foreign C	urrency	( excludi	urrency ng VAT ) aht
					Unit Price	Amount	Unit Price	Amount
1N5	Steep wave front impulse test in accordance with Article D-7.c.(6) of Specification No. L-500 kV							
1N5.1	For Fog type insulator (16,300 kg min. electro-mechanical failing load)	1	test	ТНВ	150,000.00	150,000.00		
1N5.2	For Fog type insulator (22,600 kg min. electro-mechanical failing load)	1	test	ТНВ	150,000.00	150,000.00		
1N5.3	For insulator ANSI Class 52-8 (36,000 lbs)	1	test	THB	150,000.00	150,000.00		
1N5.4	For insulator ANSI Class 52-11 (50,000 lbs)	1	test	THB	150,000.00	150,000.00		
1N6	Pollution test in accordance with Article D-7.c.(7) of Specification No. L-500 kV and Amendment No.2 (Rev.2)							
1N6.1	For Fog type insulator (16,300 kg min. electro-mechanical failing load)	1	test	ТНВ	300,000.00	300,000.00		
1N6.2	For Fog type insulator (22,600 kg min. electro-mechanical failing load)	1	test	ТНВ	300,000.00	300,000.00		
			THB		6,640,000.00	Baht		
	Total Price for 1N						orm	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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นางสาวอาสยา ช่างวิทยาการ

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8 ລື.ຍ. 2565

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.)	96	car-month	68,250.00	6,552,000.00			
	Total Price for 10	Baht	6,552,000.00					

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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บางสาวอาสยา ช่างวิทยาการ

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- Project 1-1C41 -

		Supply of Equipment	Supply of Equipment				Local	Purchase Price
		Foreign Supply	Local Supply	Foreign Currency	Local Currency	Local Transportation	Transportation, Construction and	Offered for Dismantled
: PRELIMINARY WORK  : TOWER FOUNDATIONS  : TOWERS  : INSULATOR STRING AND OVERHEAD GROUND RE ASSEMBLIES  : CONDUCTOR AND OVERHEAD GROUND WIRE	Currency		Ex-works Price			-	Installation	Equipment
	3	CIF Thai Port	( excluding VAT )		( excluding VAT )	( excluding VAT )	( excluding VAT )	(including VAT)
			Baht		Baht	Baht	Baht	Baht
		Amount	Amount	Amount	Amount	Amount	Amount	Amount
2A : PRELIMINARY WORK							120,200.00	
2B : TOWER FOUNDATIONS							4,440,000.00	
2C · TOWERS			15,325,200.00				1,724,500.00	
2C. TOWERD			13,323,200.00				1,724,500.00	
2D : INSULATOR STRING AND OVERHEAD GROUND								
WIRE ASSEMBLIES	THB	4,118,400.00	2,389,100.00					
2E : CONDUCTOR AND OVERHEAD GROUND WIRE			45,440.00				1,118,100.00	
			,				-,-10,100.00	
2F : LINE ACCESSORIES			420,000.00					
					_0			our
2G : GROUNDING MATERIALS			69,600.00			•	16,820,00	สาวอาสยา ช่างวิทยา

- Project 1-2C1 -

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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Description	Currency	Foreign Supply  CIF Thai Port	Supply of Equipment  Local Supply  Ex-works Price (excluding VAT)	Foreign Currency	Local Currency ( excluding VAT )	Local Transportation ( excluding VAT )	Local Transportation, Construction and Installation ( excluding VAT )	Purchase Price Offered for Dismantled Equipment (including VAT)
		CII THAIT OIL	Baht		Baht	Baht	Baht	Baht
		Amount	Amount	Amount	Amount	Amount	Amount	Amount
2H : OPTICAL FIBER AND LINE ACCESSORIES	THB	130,350.00	195,090.00				263,520.00	
2Q : DISMANTLING WORK FOR TEMPORARY			550,55000				200,02000	
DETOUR LINES							125,440.00	
TOTAL PRICE	ТНВ	4,248,750.00	Baht 18,444,430.00		Baht	Baht	Baht 7,808,580.00	Baht
2Z : DISMANTLED EQUIPMENT TO BE PURCHASED BY THE CONTRACTOR							Baht	-1,798,100.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

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นางสาวอาสยา ช่างวิทยาการ

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Item No.	Description	Estimated Qty.	Unit	Local Trans Construct Install ( excludin Bal	ion and ation g VAT )
	Check survey and staking of tower locations (Approximately 1.4 km in transmission line distance)	lump sum	each	46,200.00	46,200.00
2A2.1	Subsoil tests and preliminary measurement of ground electrical resistance and earth resistivity (to be performed at tower locations directed by EGAT)  Standard penetration tests and preliminary measurement of ground electrical resistance and earth resistivity at the depth and locations as directed by EGAT (Approximately 2 bores)	20	m	3,300.00	66,000.00
2A3	Boundary post along boundary line of right-of-way	4	post	2,000.00	8,000.00
	Total Price for 2A			Baht	120,200.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

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บ นางสาวอาสยา ช่างวิทยาการ

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						Equipment gn Supply		<b>Equipment</b> Supply	Local Transportation,	
Item No.	Description	Estimate d Qty.	Unit	Currency  CIF Thai Port  Ex-works Price ( excluding VAT )  Baht				( excluding VAT )		ction and Illation ing VAT ) Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2B1	Foundation for tower type DQT90									
2B1.1	Pad Foundation type CIII	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	2,870,000.00	2,870,000.00
2B1.2	Pad Foundation type CV	1	tower		XXXXX	XXXXX	XXXXX	XXXXX	1,570,000.00	1,570,000.00
							Baht		Baht	
	Total Price for 2B									4,440,000.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

นางสาวอาสยา ช่างวิทยาการ

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate	Unit	Currency	ave a			rks Price	Installation	
	_	d			CIFT	Chai Port	( excluding VAT )		( excluding VAT)	
		Qty.			Unit Price	A ma assent	Unit Price	Baht Amount	Unit Price	Saht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2C1	Tower Type DQT90									
2C1.1	Basic body (500-4x1272 DQT90)	2	body		XXXXX	XXXXX	6,702,000.00	13,404,000.00	741,030.00	1,482,060.00
2C1.2	Leg extension 6.0 m (500-4x1272 DQT90)									
		4	leg		XXXXX	XXXXX	167,000.00	668,000.00	18,470.00	73,880.00
2C1.3	Leg extension 7.5 m (500-4x1272 DQT90)									
		4	leg		XXXXX	XXXXX	200,000.00	800,000.00	22,110.00	88,440.00
2C1.4	Stub type CIII (500-4x1272 DQT90)	4	leg		XXXXX	XXXXX	58,400.00	233,600.00	6,460.00	25,840.00
2C1.5	Stub type CV (500-4x1272 DQT90)	4	leg		XXXXX	XXXXX	54,900.00	219,600.00	6,070.00	24,280.00
2C2	Tower signs									
2C2.1	Aerial patrol signs	2	piece		XXXXX	XXXXX	included in installation work	included in installation work	3,000.00	6,000.00
2C2.2	Phasing signs (3 pieces per set)	2	set		XXXXX	XXXXX	included in installation work	included in installation work	6,500.00	13,000.00
2C2.3	Circuit name signs	2	piece		XXXXX	XXXXX	included in installation work	included in installation work	5,500.00	11,000.00
							Baht		Baht	
							Dallt	15,325,200.00	Dant	1,724,500.00
	Total Price for 2C							10,020,200.00		-,. <b>-</b> 1,000100

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บนนางสาวอาสยา ช่างวิทยาการ

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- Project 1-2C5 -

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	Transportation, Construction and	
Item No.	Description	n Estimate d Unit Curr		Unit Currency CIF Thai Port		( exclud:	ks Price ing VAT ) aht	Insta ( exclud	allation ling VAT )	
		Qiy.			Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2D1	Deadend Assembly 13 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	18	set		XXXXX	XXXXX	43,000.00	774,000.00	included in stringing work	included in stringing work
2D2	Deadend Assembly 13C for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	6	set		XXXXX	XXXXX	43,000.00			included in stringing work
2D3	Deadend Assembly 15A for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	12	set		XXXXX	XXXXX	45,000.00	,		included in stringing work
2D4	Jumper support Assembly 17 for four- bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	15	set		XXXXX	XXXXX	25,000.00	375,000.00	included in stringing work	included in stringing work
2D5	45°/45° V-string suspension Assembly3 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)	12	set		XXXXX	XXXXX	34,000.00	408,000.00	included in stringing work	included in stringing work
2D6	Shield wire suspension(Grounded) Assembly 2A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	4	set		XXXXX	XXXXX	2,300.00	9,200.00	included in stringing work	included in stringing work

นางสาวอาสยา ช่างวิทยาการ

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

Rev.16

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Unit Curr Qty.		Currency	CIF T	`hai Port	Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT ) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2D7	Shield wire deadend (Insulated) Assembly 11A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	3	set		XXXXX	XXXXX	4,900.00	14,700.00	included in stringing work	included in stringing work
2D8	Shield wire deadend (Grounded) Assembly 12A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)	6	set		XXXXX	XXXXX	1,700.00	10,200.00	included in stringing work	included in stringing work
2D9	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load. In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 1,575 discs, b. Light grey glaze 126 discs	1701	disc	ТНВ	1,200.00	2,041,200.00			included in stringing work	included in stringing work
2D10	Fog type insulator (545 mm minimum leakage distance and 22,600 kg minimum electro-mechanical failing load. In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 1,200 discs, b. Light grey glaze 96 discs	1296	disc	THB	1,600.00	2,073,600.00			included in stringing work	included in stringing work

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บางสาวอาสยา ช่างวิทยาการ

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						Equipment		Equipment		ocal ortation,
					Foreig	n Supply	Local	Supply	_	ction and
Item No.	Description	Estimate	Unit	Currency			Ex-works Price			llation
		d			CIF T	Thai Port	`	ing VAT )	( excluding VAT )	
							Baht		E	Baht
				-	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load (to be used with item 2D6, in case of porcelain insulator the color shall be Brown glaze)	3	disc	ТНВ	1,200.00	3,600.00			included in stringing work	included in stringing work
	Total Price for 2D			ТНВ		4,118,400.00	Baht	2,389,100.00	Baht	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

บ่างวิทยาการ

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Qty.	d Omit Cu		CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2E1	1272 MCM ACSR/AW conductor									
2E1.1	1272 MCM ACSR/AW Conductor, furnishing conductor for item 2E1.2 and 2E1.3 (to be supplied by EGAT, see Article F-3), approximately 1.4 kilometers in transmission line distance									
			km		XXXXX	XXXXX	XXXXX	XXXXX	included in stringing work	included in stringing work
2E1.2	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 the existing Str. No. 1/2 type DQT60 to the new deadend tower type DQT90 at Mae Moh 3 Substation (Including connecting loop of Str. No. 1/2 type DQT60 to be 500 kV Mae Moh 3 - Tha Tako Transmission Line)									
		1.3	km		XXXXX	XXXXX	XXXXX	XXXXX	512,000.00	665,600.00

- Project 1-2C9 -

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

นางสาวอาสยา ช่างวิทยาการ

TIPN-L-04-2 (500 kV MM3-TTK)

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ſ						Supply of	f Equipment	Supply of	Equipment		ocal
						Foreig	gn Supply	Local	Supply	_	ortation, ction and
	Item No.	Description	Estimate d Qty.	Unit	Currency	CIF T	Thai Port	( exclud	ks Price ing VAT ) aht	Insta ( exclud	illation ing VAT )
						Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	2E1.3	Installation of conductor, double circuit, 3 phase, four-bundled conductor per phase, between the new deadend tower type DQT90 and take-off structure at Mae Moh 3 Substation, approximately 0.1 kilometer in transmission line distance									
			lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	335,000.00	335,000.00
	2E2	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)	15	reel		XXXXX	XXXXX	XXXXX	XXXXX	4,000.00	60,000.00
-	2E3	7 No.8 AWG AluminiumClad Steel, overhead ground wire								,	,
	2E3.1	7 No. 8 AWG Alumimun Clad steel wire (Furnishing for item 2E3.2 and 2E3.3) based on linear length (Linear length = No. of shield wire x horizontal distance of line route + 1.5%)	1.42	km				32,000.00	45,440.00	including in stringing wor	including in stringing work

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นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

Rev.16

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	. Description	Estimate d Qty.	Unit	Currency	CIF Thai Port		( exclud	rks Price ing VAT ) aht	Installation ( excluding VAT ) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2E3.2	Stringing of one shield wire by controlled tension method, measured based on horizontal distance of line route from the existing Str. No. 1/2 type DQT60 to the new deadend tower type DQT90 at Mae Moh 3 Substation	1.3	km		XXXXX	XXXXX	XXXXX	XXXXX	25,000.00	32,500.00
2E3.3	Installation of three shield wires between the new deadend tower type DQT90 and take-off-structure at Mae Moh 3 Substation, approximately 0.1 kilometer in transmission line distance	lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	25,000.00	25,000.00
Total Price for 2E				•		Baht	45,440.00	Baht	1,118,100.00	

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

ขางสาวอาสยา ช่างวิทยาการ

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					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Qty.	Unit	Currency	CIF 7	Thai Port	( exclud	ks Price ing VAT ) aht	Insta ( exclud	Illation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2F1	Spacer damper for four-bundled 1272 MCM ACSR/AW conductor (for double circuit, approx. 1.4 km in transmission line distance)									
		lump sum	each				336,000.00	336,000.00	included in stringing work	included in stringing work
2F2	Rigid spacer for four-bundled 1272 MCM ACSR/AW conductor (for jumper loop on double circuit transmission line system)									
252	Dividence of the bounded 1272 MCM	36	set		XXXXX	XXXXX	1,900.00	68,400.00	included in stringing work	included in stringing work
2F3	Rigid spacer for two-bundled 1272 MCM ACSR/AW conductor (for jumper loop on double circuit transmission line system)	24	set		XXXXX	XXXXX	600.00	14,400.00	included in stringing work	included in stringing work
2F4	Vibration damper for 7 No.8 aluminum- clad steel shield wire	2	set		XXXXX	XXXXX	600.00			included in stringing work
		,					Baht		Baht	
	Total Price for 2F							420,000.00		

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บางสาวอาสยา ช่างวิทยาการ
 ขางสาวอาสยา ช่างวิทยาการ

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8 ມື.ຍ. 2565

17 May 2022

- Project 1-2C12 -

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Qty.	Unit	Currency	CIF T	Thai Port	( exclud	ks Price ing VAT ) aht	Insta ( exclud	Ilation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Tower grounding									
2G1	No.8 AWG dead soft galvanized steel wire	32	m				40.00	1,280.00	20.00	640.00
2G2	No.2 AWG solid copper-clad steel wire	186	m				130.00	24,180.00	20.00	3,720.00
2G3	Exothermic connector type "CS" for cable to steel surface	8	piece				130.00	1,040.00	80.00	640.00
2G4	Exothermic connector type "CR1" for parallel cable to ground rod	12	piece				250.00	3,000.00	80.00	960.00
2G5	Exothermic connector type "CR2" for perpendicular cable to ground rod	12	piece				230.00	2,760.00	80.00	960.00
2G6	Exothermic connector type "CC" for cable to cable	4	piece				160.00	640.00	80.00	320.00
2G7	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel standard ground rod	12	piece				700.00	8,400.00	130.00	1,560.00
2G8	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') copper-covered steel sectional ground rod with coupling	20	piece				750.00	15,000.00	120.00	0.400.00

นางสาวอาสยา ช่างวิทยาการ

TIPN-L-04-2 (500 kV MM3-TTK)

หจตส-ห.

8 ລີ.ຍ. 2565

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Qty.	Unit	Currency	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	Ilation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Fence/metal object grounding (to be performed at location directed by EGAT)									
2G9	1.6 cm. nominal diameter x 3.0 m. (5/8" diameter x 10') galvanized steel standard ground rod		:				(20.00	2 700 00	140.00	940.00
2G10	Galvanized double saddle steel ground rod clamp	6	piece				330.00	3,780.00 1,980.00	140.00	360.00
2G11	8 mm.(5/16") 7-strand galvanized steel ground wire	30	m				60.00	1,800.00	10.00	300.00
2G12	Galvanized steel crimpet	10	set				40.00	400.00	70.00	700.00
2G13	19 mm. diameter bronze split bolt	6	set				490.00	2,940.00		420.00
2G14	9.5 mm. (3/8") galvanized steel staples	60	piece				40.00	2,400.00	50.00	3,000.00
	ı	1					Baht		Baht	
	Total Price for 2G							69,600.00		16,820.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง บางสาวอาสยา ช่างวิทยาการ
 ขางสาวอาสยา ช่างวิทยาการ

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8 ລື.ຍ. 2565

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	-	ortation, ection and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		( exclud	rks Price ing VAT ) saht	Insta ( exclud	allation ling VAT ) Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2H1	Composite overhead ground wire with 36 core optical fibers (13.5 MM) (OPGW) (referred section F-4.3)									
2H1.1	13.5mm dia. Composite Overhead Ground Wire with Optical Fiber (OPGW)	lump sum	lump sum	ТНВ	130,350.00	130,350.00			included in stringing worl	included in stringing wo
2Н1.2	Stringing by controlled tension method one OPGW measured based on horizontal distance of line route from the new Mae Moh 3 substation (MM3 S/S) to existing STR.NO.1/2 type:DQT60 (direction to Tha Tako substation (TTK S/S))	-			·					
2H2	Joint boxes for optical fiber cable	1.35	km	THB	XXXXX	XXXXX	XXXXX	XXXXX	195,200.00	263,520.00
2H2.1	2-way joint box with accessories for two OPGW cables at existing STR.NO.1/2 type:DQT60	1	set				195,090.00	195,090.00		
2H2.2	2-way joint box with insulator and accessories for OPGW and 36 core non-metallic optical fiber cable at takeoff structure (MM3 S/S)	1	set					, <u>, , , , , , , , , , , , , , , , , , </u>		
2H3	Hardware assembly for OPGW									
2Н3.1	OPGW suspension (Grounded) assembly 22 with armor rods (excluding vibration damper) (STR.NO.1/1 - 1 set, STR.NO.0/3 - 1 set)	2	set		XXXXX	XXXXX		J	J.	
2Н3.2	OPGW tension (Grounded) assembly 24 with armor rods (excluding vibration damper) (STR.NO.1/2 - 2 set, STR.NO.0/2A - 2 set, STR.NO.0/1A - 2 set)	6	set		XXXXX	XXXXX		ผู้อำนวยการฝ	รัตน์ ไชยพันธุ์ ายวิศวกรรมระท vay 2022 นางสาว	<b>บส่ง</b> <i>(</i> )

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					Supply of	Equipment	Supply of	Equipment	_	cal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	hai Port	( exclud	rks Price ing VAT ) Baht	Insta ( exclud	Ilation ing VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2Н3.3	OPGW tension assembly with accessories and insulator to be used at take-off structure (excluding vibration damper) (MM3 S/S)	1	set		XXXXX	XXXXX				
2H4	Line accessories									
2H4.1	Vibration damper assembly with accessories	14	set		XXXXX	XXXXX				
2H4.2	Parallel groove clamps (STR.NO.1/2 - 2 set, STR.NO.1/1 - 1 set, STR.NO.0/3 - 1 set, STR.NO.0/2A - 1 set, STR.NO.0/1A - 1 set, Take-off structure - 1)	7	set							
2H4.3	Grounding clamps (STR.NO.1/2 - 1 set, STR.NO.1/1 - 1 set, STR.NO.0/3 - 1 set, STR.NO.0/2A - 1 set, STR.NO.0/1A - 1 set, Take-off structure - 1)	6	set							
2H4.4	1-wire cleat without insulator for OPGW downlead to joint box (STR.NO.0/1 - 10 set)	10	set							
2H4.5	2-wire cleats without insulator for OPGW downlead to joint box (STR.NO.0/1 - 25 set)	25	set							
	6-wire cleats without insulator for OPGW downlead to joint box (STR.NO.0/1 - 4 set)	4	set					0		
2H4.7	1-wire cleat with insulator for OPGW downlead to joint box (Take-off structure - 25)	25	set					นางสุดารัตน์ ไชเ		
	6-wire cleats with insulator for OPGW downlead to joint box (Take-off strucutre - 4)	4	set				ผู้อ์	านวยการฝ่ายวิศวกร 17 May 202		<b>0น~</b> อาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of	Equipment	Supply of	Equipment		ocal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	hai Port	( exclud	rks Price ing VAT ) saht	Insta ( exclud	allation ling VAT )
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
2H4.9	Porcelain or glass insulator ANSI CLASS52-8 (36,000 lbs) with corrosion proof type pin to be used at takeoff structure									
		1	set							
2H4.10	3/8" Extra high strength galvanized steel wire for grounding OPGW to towers	12	meter		XXXXX	XXXXX				
2H5	Field testing for optical fiber	lump sum	lump sum		XXXXX	XXXXX	XXXXX	XXXXX		
				THB		130,350.00	Baht		Baht	
	Total Price for 2H							195,090.00		263,520.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

บ่างวิทยาการ

หจตส-ห.

Item No.	Description	Estimate d Qty.	Unit	`	tion and
				Unit Price	Amount
	Dismantling of the existing 500 kV Mae Moh 3 - Tha Tako Temporary Detour Line which is double circuit, four-bundled conductor per phase from Tower No. 0/1A type DQT90 to Tower No. 1 type DQT90 at Mae Moh 3 Substation and from Tower No. 3 type DQT60 to Str. No. 1/2 type DQT60 at KM.1, total approx. 0.6 km in transmission line distance	lump sum	each	125,440.00	125,440.00
	Total Price for 2Q	•		Baht	125,440.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

บ ขางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

8 ມີ.ຍ. 2565

Item No.	Description	Estimated Qty.	Unit	Purchase Pric Dismantled ( includir Ba Unit Price	Equipment ng VAT )
	Dismantled Equipment of the existing500 kV Mae Moh 3 - Tha Tako Temporary Detour Line which is double circuit, four-bundled conductor per phase from Tower No 0/1A type DQT90 to Tower No. 1 type DQT90 at Mae Moh 3 Substation and from Tower No 3 type DQT60 to Str. No. 1/2 type DQT60, total approx. 0.6 km in transmission line distance				1 mount
2Z1.1	Dismantled hardware assembly	lump sum	each	44,290.00	44,290.00
2Z1.2	Dismantled line accessories	lump sum	each	2,200.00	2,200.00
2Z1.3	Dismantled insulator	lump sum	each	49,300.00	49,300.00
2Z1.4	Dismantled conductor	lump sum	each	1,700,560.00	1,700,560.00
2Z1.5	Dismantled overhead ground wire	lump sum	each	1,350.00	1,350.00
2Z1.6	Dismantled OPGW and accessories	lump sum	each	400.00	400.00
	Total Price for 2Z			Baht	1,798,100.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง

17 May 2022

ขางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

8 ລື.ຍ. 2565

		Supply of Equipment	Supply of Equipment				Local
		Foreign Supply	Local Supply	Foreign Currency	Local Currency	Local Transportation	Transportation, Construction and
Description	Currency		Ex-works Price			11 <b></b>	Installation
r. ·		CIF Thai Port	( excluding VAT )		( excluding VAT )	( excluding VAT )	( excluding VAT )
			Baht		Baht	Baht	Baht
		Amount	Amount	Amount	Amount	Amount	Amount
3D : INSULATOR STRING AND OVERHEAD GROUND WIRE ASSEMBLIES	THB	1,620,000.00	1,042,800.00				
3E : CONDUCTOR AND OVERHEAD GROUND WIRE			9,600.00				364,000.00
3F : LINE ACCESSORIES			66,600.00				
3H : OPTICAL FIBER AND LINE ACCESSORIES	ТНВ	19,180.00	28,700.00				39,060.00
TOTAL PRICE	ТНВ	1,639,180.00	Baht 1,147,700.00		Baht	Baht	Baht 403,060.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Qty.	Unit	Ex-works Price  CIF Thai Port  Ex-works Price  ( excluding VAT )  Baht		ing VAT )	Insta ( exclud	Illation ing VAT )		
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
3D1	Deadend Assembly 13 for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)									
		6	set		XXXXX	XXXXX	43,000.00	258,000.00	included in stringing work	included in stringing work
3D2	Deadend Assembly 15A for four-bundled 1272 MCM ACSR/AW conductor (Excluding insulator)									
		12	set		XXXXX	XXXXX	45,000.00	540,000.00	included in stringing work	included in stringing work
3D3	Jumper support Assembly 17 for four- bundled 1272 MCM ACSR/AW conductor (Excluding insulator)									
		9	set		XXXXX	XXXXX	25,000.00	225,000.00	included in stringing work	included in stringing work
3D4	Shield wire deadend (Insulated) Assembly 11A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)									
		3	set		XXXXX	XXXXX	4,900.00	14,700.00	included in stringing work	included in stringing work

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

หจตส-ห.

					Supply of			Equipment	Local Transportation		
					Foreig	n Supply	Local Supply		Transportation, Construction and		
Item No.	Description	Estimate d Qty.	Unit	Currency	CIF T	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Insta ( exclud	allation ing VAT ) Baht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	
3D5	Shield wire deadend (Grounded) Assembly 12A for 7 No.8 aluminum-clad steel wire (Excluding vibration damper and insulator)										
		3	set		XXXXX	XXXXX	1,700.00	5,100.00	included in stringing work	included in stringing work	
	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load. In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 849 discs, b. Light grey glaze 66 discs										
		915	disc	THB	1,200.00	1,098,000.00			included in stringing work	included in stringing work	
	Fog type insulator (545 mm minimum leakage distance and 22,600 kg minimum electro-mechanical failing load. In case of porcelain insulator the quantity of each color shall be: a. Brown glaze 300 discs, b. Light grey glaze 24 discs										
		324	disc	THB	1,600.00	518,400.00			included in stringing work	included in stringing work	

ขางสาวอาสยา ช่างวิทยาการ

Item No.	Description	Estimate d	Unit	Currency	CIF Thai Port		Local Ex-wor	Equipment Supply rks Price ing VAT )	Transp Constru Insta	ocal ortation, ction and illation ing VAT)
		Qty.					Baht mount Unit Price Amount		Unit Price	Amount
	Fog type insulator (432 mm minimum leakage distance and 16,300 kg minimum electro-mechanical failing load (to be used with item 3D4, in case of porcelain insulator the color shall be Brown glaze)	3	disc	ТНВ	1,200.00	1,200.00 3,600.00			included in stringing work	included in stringing work
	Total Price for 3D			ТНВ	1,620,000.00		Baht	1,042,800.00	Baht	

17 May 2022

นางสาวอาสยา ช่างวิทยาการ

					Supply of	11 0		Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d Unit Qty.		nit Currency	CIF T	Thai Port	Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT) Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
3E1	1272 MCM ACSR/AW conductor									
	1272 MCM ACSR/AW Conductor, furnishing conductor for item 3E1.2 (to be supplied by EGAT, see Article F-3), approximately 0.1 kilometer in transmission line distance		km		XXXXX	XXXXX	XXXXX	XXXXX	included in stringning work	included in stringning work
	Installation of conductor, double circuit, 3 phase, four-bundled conductor per phase, between the deadend tower type DQT90 and take-off structure at Mae Moh 3 Substation (New 500 kV GIS Substation) to be 500 kV Conventional Substation – GIS Substation Transmission Line, approximately 0.1 kilometer in transmission line distance	lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	335,000.00	335,000.00
	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)									
	<u> </u>	1	reel		XXXXX	XXXXX	XXXXX	XXXXX	4,000.00	4,000.00

					Supply of	f Equipment	Supply of	Equipment		ocal	
					Foreig	gn Supply	Local	Supply	_	ortation, ction and	
Item No.	Description	Estimate d Qty.	Unit	Currency	CIF T	CIF Thai Port		CIF Thai Port Ex-works Price (excluding VAT) Baht		Insta ( exclud	allation ling VAT )
					Unit Price Amount		Unit Price	Amount	Unit Price	Amount	
3E3	7 No.8 AWG AluminiumClad Steel, overhead ground wire										
3E3.1	7 No. 8 AWG Alumimun Clad steel wire (Furnishing for item 3E3.2) based on linear length (Linear length = No. of shield wire x horizontal distance of line route + 1.5%)										
		0.3	km				32,000.00	9,600.00	included in stringning worl	included in stringning work	
3E3.2	Installation of three shield wires between the deadend tower type DQT90 and take-off structure at Mae Moh 3 Substation (New 500 kV GIS Substation), approximately 0.1 kilometer in transmission line distance	lump sum	each		XXXXX	XXXXX	XXXXX	XXXXX	25,000.00	25,000.00	
							Baht		Baht		
	Total Price for 3E							9,600.00		364,000.00	

นางสาวอาสยา ช่างวิทยาการ

					Supply of	f Equipment	Supply of	Equipment		ocal
					Foreig	gn Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimate d	Unit	Currency	CIF 7	Thai Port	Ex-works Price ( excluding VAT )		Insta	illation ing VAT )
		Qty.					В	aht	Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
	Spacer damper for four-bundled 1272 MCM ACSR/AW conductor (for double circuit, approx. 0.1 km in transmission line distance)									
		0.1	km				240,000.00	24,000.00	included in stringing work	included in stringing work
3F2	Rigid spacer for four-bundled 1272 MCM ACSR/AW conductor (for jumper loop on double circuit transmission line system)									
		18	set		XXXXX	XXXXX	1,900.00	34,200.00	included in stringing work	included in stringing work
3F3	Rigid spacer for two-bundled 1272 MCM ACSR/AW conductor (for jumper loop on double circuit transmission line system)	12	set		XXXXX	XXXXX	600.00	7,200.00	included in stringing work	included in stringing work
3F4	Vibration damper for 7 No.8 aluminum- clad steel shield wire									
		2	set		XXXXX	XXXXX	600.00	1,200.00	included in stringing work	included in stringing work
							Baht		Baht	
	Total Price for 3F							66,600.00		

บางสาวอาสยา ช่างวิทยาการ

# MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	Supply of Equipment S Foreign Supply		Equipment		ocal
					Foreig	n Supply	Local	Supply		ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	CIF Thai Port		rks Price ing VAT ) Baht	Installation ( excluding VAT  Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
3H1	Composite overhead ground wire with 36 core optical fibers (13.5 MM) (OPGW) (referred section F-4.3)									
3H1.1	13.5mm dia. Composite Overhead Ground Wire with Optical Fiber (OPGW)	lump sum	lumn sum	THB	19,180.00	19,180.00			included in stringing workly	included in stringing work
3H1.2	Stringing by controlled tension method, one OPGW measured based on horizontal distance of line route from STR.NO.0/1A to the Mah Moh 3 take-off structure at the new 500 kV GIS (direction from Mae Moh 3 existing 500 kV conventional susbstation, ROUTE NO.1)	Turnp Sum	Tump sum	THE	19,100.00	17,100.00			included if stringing work	included in stringing work
		0.1	km		XXXXX	XXXXX	XXXXX	XXXXX	195,300.00	19,530.00
3H1.3	Stringing by controlled tension method, one OPGW measured based on horizontal distance of line route from STR.NO.0/1A to the Mah Moh 3 take-off structure at the new 500 kV GIS (direction from Mae Moh 3 existing 500 kV conventional susbstation, ROUTE NO.2)	0.1	km		XXXXX	XXXXX	XXXXX	YYYYY	195,300.00	19,530.00
3H2	Joint boxes for optical fiber cable	0.1	KIII		ΑΛΛΛΛ	АЛАЛ	AAAAA	ΑΛΛΛ	193,300.00	17,330.00
3H2.1	2-way joint box with insulator and accessories for OPGW and 36 core non-metallic optical fiber cable at take-off structure (Mah Moh 3 take-off structure at the new 500 kV GIS - 2)	2	set				14,350.00	28,700.00		J.
3H2.2	Connecting the new OPGW cable with the existing OPGW on STR.NO.0/1A	2	job		XXXXX	XXXXX	XXXXX	XXXXX	นางสุ ผู้อำนวยกา	ดารัตน์ ไชยพันธุ์ เฝ่ายวิศวกรรมระ 7 May 2022

## MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	Equipment	Supply of	Equipment	Local Transportation,	
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		Installation ( excluding VAT  Baht	
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
3H3	Hardware assembly for OPGW									
3Н3.1	OPGW tension (Grounded) assembly 24 with armor rods (excluding vibration damper) (new STR.NO.0/1A - 2)	2	set		XXXXX	XXXXX				
3Н3.2	OPGW tension assembly with accessories and insulator to be used at take-off structure (excluding vibration damper) (Mah Moh 3 take-off structure at the new 500 kV GIS - 2)	2	set		XXXXX	XXXXX				
3H4	Line accessories	-	500		777777	7111111				
3H4.1	Vibration damper assembly with accessories	4	set		XXXXX	XXXXX				
3H4.2	Parallel groove clamps (new STR.NO.0/1A - 4, Mah Moh 3 take-off structure at the new 500 kV GIS - 2)	6	set							
3H4.3	Grounding clamps (new STR.NO.0/1A - 2, Mah Moh 3 take-off structure at the new 500 kV GIS - 2)	4	set							
3H4.4	1-wire cleat without insulator for OPGW down-lead to joint box (STR.NO.0/1A - 20 set)	20	set							
3H4.5	2-wire cleats without insulator for OPGW down-lead to joint box (STR.NO.0/1A - 50 set)	50	set							
3H4.6	6-wire cleats without insulator for OPGW down-lead to joint box (STR.NO.0/1 - 8 set)	8	set							ort

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง นางสาวอาสยา ช่างวิทยาการ

## MEDIUM COST FOR BID NO. TIPN-L-04

					Supply of	Equipment	Supply of	Equipment		cal
					Foreig	n Supply	Local	Supply	_	ortation, ction and
Item No.	Description	Estimated Qty.	Unit	Currency	CIF T	CIF Thai Port		Ex-works Price ( excluding VAT ) Baht		llation ng VAT ) aht
					Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
3H4.7	1-wire cleat with insulator for OPGW down-lead to joint box (Mah Moh 3 take-off structure at the new 500 kV GIS - 50)	50	set							
3H4.8	6-wire cleats with insulator for OPGW down-lead to joint box (Mah Moh 3 take-off structure at the new 500 kV GIS - 8)	8	set							
3H4.9	Porcelain or glass insulator ANSI CLASS 52-8 (36,000 lbs) with corrosion proof type pin (Mah Moh 3 take-off structure at the new 500 kV GIS - 2)	2	set							
3H4.10	3/8" Extra high strength galvanized steel wire for grounding OPGW to towers	7	m		XXXXX	xxxxx				
3H5	Field testing for optical fiber	lump sum	lump sum	1	XXXXX	XXXXX	XXXXX	XXXXX		
	Total Price for 3H			THB		19,180.00	Baht		Baht	
								28,700.00		39,060.00

นางสุดารัตน์ ไชยพันธุ์ ผู้อำนวยการฝ่ายวิศวกรรมระบบส่ง ขางสาวอาสยา ช่างวิทยาการ

## **Important Information**

for

# Invitation to Bid No. TIPN-L-04

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. <u>Eligibility of Bidders: General Requirements</u> and Article B-8. <u>Information to be Submitted with Bid</u>

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 E-16. Inspection and Tests**

Terms and conditions regarding inspection and tests have been revised.

#### Article F-8. Drawings and Data to be Furnished by the Contractor

Terms and conditions regarding EGAT's document management system in item d. have been added and the number of copies of the drawings and documents in Print and CD-ROM has been revised.

#### Article F-12. Liquidated Damages for Late Completion and Late Delivery

The total amount of liquidated damages shall not exceed ten (10) per cent of the total Contract Price, thereafter EGAT shall have the right, at its sole discretion, to terminate the Contract.

#### 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. TIPN-L-04

(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-3. Bid Security

The amount of bid security shall be USD 1,913,500.- or THB 62,750,000.-.

3. 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.

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

The following document shall be added to Article B-8. <u>Information to be Submitted with</u> 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.

5.	Article B-1	12. Evaluatio	n and Com	parison	of Bids
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Evaluation and comparison of Bids shall be as specified in Article B-12. <u>Evaluation and Comparison of Bids</u>.

# 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:										
ll	\/	NI -	Reference							
Item Yes No (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)

# <u>Anti-Corruption Compliance Checklist</u> (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 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)

#### ELECTRICITY GENERATING AUTHORITY OF THAILAND

Nonthaburi Thailand

#### **INVITATION TO BID NO. TIPN-L-04**

SUPPLY AND CONSTRUCTION OF TRANSMISSION LINES 500 kV MAE MOH 3 – LAMPHUN 3 (FROM MAE MOH 3 TO KM.76), 500 kV MAE MOH 3 – THA TAKO, AND 500 kV MAE MOH 3 (EXISTING 500 kV CONVENTIONAL SUBSTATION) – MAE MOH 3 (NEW 500 kV GIS SUBSTATION)

# TRANSMISSION SYSTEM IMPROVEMENT PROJECT IN UPPER NORTHERN REGION TO ENHANCE SYSTEM SECURITY (TWO-ENVELOPE)

#### **Invitation**

The Electricity Generating Authority of Thailand (EGAT) hereby invites sealed bids for Supply and Construction of Transmission Lines 500 kV Mae Moh 3 – Lamphun 3 (from Mae Moh 3 to KM.76), 500 kV Mae Moh 3 – Tha Tako, and 500 kV Mae Moh 3 (Existing 500 kV Conventional Substation) – Mae Moh 3 (New 500 kV GIS Substation) under Transmission System Improvement Project in Upper Northern Region to Enhance System Security in accordance with the Terms and Conditions, Technical Specifications and Drawings described in these Bidding Documents.

#### **Work Description**

The scope of Work under this Invitation is composed of three (3) Schedules as described below:

Schedule 1: <u>Supply and Construction of 500 kV Mae Moh 3 – Lamphun 3</u> Transmission Line

The transmission line to be supplied and constructed under this Schedule is 500 kV, 50 Hz, 3 phase, quad-bundled conductor per phase on double circuit self-supporting lattice steel towers extending from Mae Moh 3 Substation to KM.76, having a distance of approximately 74 kilometers in length as the first section of the 500 kV Mae Moh 3 – Lamphun 3 Transmission Line in the northern region of Thailand with a total distance of approximately 152 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.

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Please note that the second section of the whole 500 kV Mae Moh 3 – Lamphun 3 Transmission Line to be constructed from KM. 76 to Lamphun 3 Substation will be undertaken under Invitation to Bid No. TIPN-L-03. The Contractor of the Invitation to Bid No. TIPN-L-04 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 work under this Schedule shall be divided into two (2) portions as described below:

<u>Portion 1</u>: The Work for this portion is supply and construction of the transmission line extending from Mae Moh 3 Substation to KM.14, having a distance of approximately 12.2 kilometers in length which has been designed as the <u>Anti-Polluted Zone</u>. The conductor to be employed under this Schedule will be 1272 MCM ACSR/AW supplied by EGAT. Two types of shield wires will be employed; one of which is 7 No. 8 AWG aluminum-clad steel 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.

<u>Portion 2</u>: The Work for this portion is supply and construction of the transmission line extending from KM.14 to KM.76, having a distance of approximately 61.8 kilometers in length. The conductor to be employed under this Schedule 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.

# Schedule 2: <u>Supply and Construction of 500 kV Mae Moh 3 – Tha Tako</u> Transmission Line

The transmission line to be supplied and constructed under this Schedule is 500 kV, 50 Hz, 3 phase, quad-bundled conductor per phase on double circuit self-supporting lattice steel towers extending from the existing tower at Mae Moh 3 Substation to KM. 1 in the northern region of Thailand, having a distance of approximately 1.4 kilometer on the existing right-of-way with 30 meters in width on each side of the center line of the transmission line.

The 1272 MCM ACSR/AW conductor will be employed under this Schedule. Two types of shield wires will be employed; one of which is 7 No. 8 AWG aluminum-clad steel wire and the other is composite overhead ground wire with 36-core optical fiber. The conductor will be supplied by EGAT whereas both types of shield wires shall be supplied by the Contractor.

The dismantling Work of the existing 500 kV Mae Moh 3 – Tha Tako Temporary Detour Line which is quad-bundled conductor per phase on double circuit self-supporting lattice steel towers strung with 1272 MCM ACSR/AW conductor, having a distance of approximately 0.6 kilometer shall also be performed under this Schedule. It shall also be noted that this dismantling Work shall be conducted in accordance with the requirements in Specifications No. TL-07 (Rev.3): <u>Dismantling Work</u>. List of dismantled Equipment to be purchased by the Contractor is shown in Attachment No. 2:

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<u>List of Equipment to be Dismantled by the Contractor</u>. Conditions regarding the purchase of the dismantled Equipment are stipulated in Attachment No. 3 : <u>Requirements for Dismantling Work and Conditions of Sale of Dismantled</u> Equipment.

Schedule 3: <u>Supply and Construction of 500 kV Mae Moh 3 (500 kV Conventional Substation) – Mae Moh 3 (New 500 kV GIS Substation)</u>
Transmission Line

The Work to be performed under this Schedule is stringing of 500 kV Mae Moh 3 (500 kV Conventional Substation) – Mae Moh 3 (New 500 kV GIS Substation) Transmission Line which is 50 Hz, 3 phase, quad-bundled conductor per phase on double circuit self-supporting lattice steel towers extending from the dead-end tower to take-off structure at the New 500 kV GIS Substation, having a distance of approximately 0.1 kilometer.

The conductor to be employed will be 1272 MCM ACSR/AW. Two types of shield wires will be employed; one of which is 7 No. 8 AWG aluminum-clad steel wire and the other is composite overhead ground wire with 36-core optical fiber. The conductor will be supplied by EGAT whereas 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.

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 including modifications and re-design for tower 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 tower foundations or details & bar bending schedule of foundations or prepares drawings of which leg extensions and/or stub & setting dimensions are not available or of re-designed tower foundations, such

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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.

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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. <u>Information to be Submitted with Bid</u> 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 Fourbundled 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

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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

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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.

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# 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)	<u>สาร</u>			

J.

บรองสำนาโดย <u>หพอ-ส. กสส-</u>ส. อวส. ก่อนนำไปใช้งาน ต้องครวจสอบ Revision ต่าสุด ฝ่ายวิศวกรรมระบบส่ง กฟม. 11 Feb 2022

500 kV T/L -1- January 2022

No.	Bidder/Country			
14	4 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 Compar			
	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			





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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 ÉLECTRIC ENGINEERING CO., LTD. / China			
41	Transrail - Hanbaek Consortium			
	(Transrail Lighting Limited / India and Hanbaek Co. Ltd., / Korea)			
42	THE JOINT VENTURE OF CHINA NATIONAL HEAVY MACHINERY CORPORATION &			
	FUTURE ELECTRICAL CONTROL COMPANY LIMITED			
	(CHINA NATIONAL HEAVY MACHINERY CORPORATION / China and FUTURE ELECTRICA			
	CONTROL COMPANY LIMITED / Thailand)			

500 kV T/L -3-

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<u>โอกสารควบคุม</u> January 2022 <u>หลอง กรสุง อาส</u>

ด้องครวจสอบ Revision ล่าสุด ฝ่ายวิศวกรรมระบบส่ง กฟม.

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No.	Bidder/Country
43	LOXLEY PUBLIC COMPANY LIMITED / Thailand

#### 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.



#### 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

Tel: (662) 705-8755-6 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

#### Sky Tower 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

<u>เอกสารควบคุม</u>

ก่อนนำไปใช้งาน ต้องตรวจสอบ Revision ล่าสุด ฝ้ายวิศวกรรมระบบส่ง กฟม,

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# 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 Lumpratew, Lardkrabang Bangkok 10520

Tel: 0 2739 4026 Fax: 0 2326 0564

- (For 1. Hardware assemblies and line accessories (except damper) for single, twinbundled and quad-bundled conductor for 115 kV, 230 kV and 500 kV transmission lines
  - 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

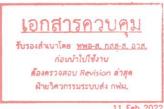
Tel: 038 845 675 Fax: 038 845 674

- (For 1. Hardware assemblies and line accessories (except damper) for single, twinbundled 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, 6<sup>th</sup> 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. 22<sup>nd</sup> 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) <u>CONDUCTOR</u>

#### 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

16<sup>th</sup> 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

## โอกสารควบคุม รับรองสำนาโคย <u>หพอะ กสสะส. อวส.</u> ก่อนนำไปใช้งาน ต้องครวงสอบ Revision ล่าสุด ฝ่ายวิศวกรรมระบบส่ง กฟม.

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#### 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 <u>พพอ-ส. กสส-ส. อวส.</u> ก่อนนำไปใช้งาน ต้องครวจสอบ Revision ล่าสุด ฝ้ายวิศวกรรมระบบส่ง กฟผ.

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# **SECTION H ATTACHMENTS**

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

Attachment No. 2 : List of Equipment to be Dismantled by the Contractor

Requirements for Dismantling Work and Conditions of Sale of Dismantled Equipment Attachment No. 3

#### **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>	<b>Estimated Quantity</b>
1.	1272 MCM ACSR/AW conductor as per Schedule 1E, Item 1E1.1	297.60 km
2.	1272 MCM ACSR/GA conductor as per Schedule 1E, Item 1E4.1	1,507.20 km
3.	1272 MCM ACSR/AW conductor as per Schedule 2E, Item 2E1.1	36.00 km
4.	1272 MCM ACSR/AW conductor as per Schedule 3E, Item 3E1.1	2.40 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 Specifications No. L-500 kV (Revision 1), Section B : Conductor.

#### **ATTACHMENT NO. 2**

#### LIST OF EQUIPMENT TO BE DISMANTLED BY THE CONTRACTOR

The following are the Equipment to be dismantled under this Contract. Types and quantities shown are approximate and provided as primary information. The Bidder shall be deemed to have carefully examined the exact quantities for his quotation of dismantling services.

<u>Item</u>	<b>Description</b> Est	timated Quantity	7_
	The existing 500 kV Mae Moh 3 - Tha Tako Temp (The dismantled Equipment as listed below shall be the Contractor)		<u>ne</u>
1.	Hardware Assemblies Deadend Assembly 13	24	sets
	Jumper support Assembly 17	15	sets
	Shield wire deadend (Grounded) Assembly 12A for 7 No.8 aluminum-clad steel wire	6	sets
	Deadend Assembly 24 for OPGW	6	sets
2.	Line Accessories Rigid spacer for two bundled 1272 MCM ACSR/AW conductor	V 24	Sets
	Rigid spacer for four bundled 1272 MCM ACSR/AV conductor	W 36	Sets
	Vibration damper for 7 No. 8 aluminum-clad steel sh wire	nield 2	sets
3.	Insulator Fog type insulator ANSI Class 52-8 (36000 lbs) Fog type insulator ANSI Class 52-11 (50000 lbs)	405 1,296	discs discs
4.	1272 MCM ACSR/AW Conductor	13.64	km
5.	7 No.8 AWG galvanized steel overhead ground with	ire 0.56	km
6.	Composite overhead ground wire with 36-core op fiber	otical 0.56	km

#### ATTACHMENT NO. 3

#### REQUIREMENTS FOR DISMANTLING WORK AND

#### CONDITIONS OF SALE OF DISMANTLED EQUIPMENT

The requirements for Dismantling Work and Conditions of Sale of Dismantled Equipment shall apply to this Invitation to Bid.

#### 1. Scope of Dismantling Work

The scope of dismantling work shall be as listed in the Price Schedule, which covers the provisions of dismantling and a portion of dismantled Equipment returned to EGAT and dismantling with conditions for the Contractor to purchase the dismantled Equipment, as the case may be, and shall be in accordance with Specifications No. TL-07 (Rev. 3) Dismantling Work.

#### 2. Pesponsibility of Contractor

The Contractor shall be deemed to have carefully inspected and examined all of the conditions and circumstances of the Equipment as appearing in the existing transmission line to be dismantled under this Contract. EGAT will not be responsible for any defect, imperfection or fault of such Equipment.

For dismantled Equipment to be purchased by the Contractor, the Contractor shall, not later than fifteen (15) Days before the day of de-energizing for the dismantling work, pay the value added tax collectible on the payment for the dismantled Equipment to be sold to the Contractor to EGAT. Upon payment of the value added tax by the Contractor to EGAT, EGAT will issue a tax invoice to the Contractor. Ownership of the Equipment to be dismantled shall be transferred to the Contractor when the transmission line is de-energized for the dismantling work.

In the event that the Contractor shall return a portion of the dismantled Equipment to EGAT, the ownership of the dismantled Equipment is the property of EGAT, but this shall not be construed as relieving the Contractor from the sole responsibility as provided under this Contract for the care, protection, and maintenance of the Equipment. The Contractor shall be responsible for any loss or damages of the Equipment until acceptance has been made by EGAT. The submission of the dismantled Equipment to EGAT shall be performed upon completion of each dismantling portion as scheduled.

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#### 3. Payment

Ninety (90) per cent of the amount and the adjusted amount due, if any, for the dismantling work will be paid by EGAT to the Contractor after the date of completion of the dismantling work and in case of the returned dismantled Equipment to EGAT after the dismantled Equipment has been delivered at the site(s) specified and acceptance has been made by EGAT.

In case the scope of the Contract requires the Contractor to purchase any item of dismantled Equipment, payment for cost of dismantled Equipment shall be made by the Contractor as scheduled in the Contract Documents regardless of the actual dismantling to be incurred. In case no schedule is set forth, payment shall be made as soon as possible but not later than two (2) Months after completion of each portion of dismantling work. In case no payment is made within the aforementioned period, EGAT reserves the right to claim directly from the Contractor or from the Performance Security or the Maintenance Security, as the case may be, or deduct or set off from any and all money due to the Contractor under this Contract for the amount together with interest at the rate of Minimum Overdraft Rate (MOR) plus two (2) per cent calculated from the due date up to the date the payment is made in full.