

ELECTRICITY GENERATING AUTHORITY OF THAILAND

**Supplemental Notice No. 1**

**Invitation to Bid No. TILS-RX-03**

**Supply of 110 MVAR and 55 MVAR 500 kV Shunt Reactors**

**Transmission System Improvement Project In Lower Southern Region  
To Enhance System Security**

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The attached Supplemental Notice shall be considered as part of the bidding documents No. TILS-RX-03.

As acknowledgement of receipt that all additions, deletions and revisions contained in this Supplemental Notice are incorporated into the above bidding documents, Bidder is requested to sign and return this acknowledgement via email address : pasakorn.piy@egat.co.th within three (3) days from the date of the announcement of this Supplemental Notice on <http://www4.egat.co.th/fprocurement/biddingeng/>.

The original acknowledgement which is manually signed in ink by a person or persons duly authorized shall be included in the proposal to be submitted on the bid opening date.

ELECTRICITY GENERATING AUTHORITY OF THAILAND

May 12, 2021

ACKNOWLEDGEMENT

This undersigned Bidder hereby certifies that the additions, deletions and revisions set forth in this Supplemental Notice to Invitation to Bid No. TILS-RX-03 are incorporated as part of the above bidding documents and will be fully included in any bids which he may submit.

Signed \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Date \_\_\_\_\_

## ELECTRICITY GENERATING AUTHORITY OF THAILAND

## SUPPLEMENTAL NOTICE NO. 1

## INVITATION TO BID NO. TILS-RX-03

## SUPPLY OF 110 MVAR AND 55 MVAR 500 kV SHUNT REACTORS

TRANSMISSION SYSTEM IMPROVEMENT PROJECT  
IN LOWER SOUTHERN REGION TO ENHANCE SYSTEM SECURITY

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The following supplemental information is hereby given for the above described Invitation:

## 1. Section C : Proposal

Replace pages Part 3-C1 and Part 3-C2 of Delivery Schedule and Distribution List with the revised pages with (Rev.1) attached.

## 2. Section G : Ratings and Features

Replace pages G4 and G5 of Ratings and Features with the revised pages with (Rev.1) attached.

Bid submitted must be in accordance with this Notice. Receipt of this Notice shall be acknowledged by the Bidder on the proposal included in the Bidding Documents in the space provided on page C-3, Article C-7 Supplemental Notices.

ELECTRICITY GENERATING  
AUTHORITY OF THAILAND

.....May 12 , 2021.....

**INVITATION TO BID NO. TILS-RX-03****Delivery Schedule and Distribution List****Transmission System Improvement Project in Lower Southern Region to Enhance System Security****Schedule 1 : 500 kV Shunt Reactors**

Item No.	Description	Qty	Job no.	Substation	Delivery Required by EGAT (within months after confirmation of Letter of Award of Contract)
					CFR Thai Port / Ex-works / DDP EGAT's Store
1-1	Complete set of 110 MVAR, 525 kV, three phases shunt reactor and 2.18 MVAR, 110 kV, 650 kV BIL, neutral reactor	2	<b>TILS-01-S06</b>	TS	16
1-2	Complete set of 55 MVAR, 525 kV, three phases shunt reactor and 2.18 MVAR, 110 kV, 650 kV BIL, neutral reactor	2	TILS-01-S03	SKL3	16
1-3.1a	1550 kV BIL, HV Bushing for 110 MVAR, 525 kV, three phases shunt reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-3.1b	650 kV BIL, Neutral Bushing for 110 MVAR, 525 kV, three phases shunt reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-3.1c	650 kV BIL, HV Bushing for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-3.1d	110 kV BIL, Neutral Bushing for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-3.2	120 kV Surge Arrester for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-3.3a	Complete Set of one or two units of each type and each size of auxiliary relay and contactor (two units are required where five units or more of each type and each size are provided per one reactor) for 110 MVAR, 525 kV, three phases shunt reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16

**INVITATION TO BID NO. TILS-RX-03****Delivery Schedule and Distribution List****Transmission System Improvement Project in Lower Southern Region to Enhance System Security****Schedule 1 : 500 kV Shunt Reactors**

Item No.	Description	Qty	Job no.	Substation	Delivery Required by EGAT (within months after confirmation of Letter of Award of Contract)
					CFR Thai Port / Ex-works / DDP EGAT's Store
1-3.3b	Complete Set of one or two units of each type and each size of auxiliary relay and contactor (two units are required where five units or more of each type and each size are provided per one reactor) for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-1	1	<b>TILS-01-S06</b>	TS	16
1-4.1a	1550 kV BIL, HV Bushing for 55 MVAR, 525 kV, three phases shunt reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16
1-4.1b	650 kV BIL, Neutral Bushing for 55 MVAR, 525 kV, three phases shunt reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16
1-4.1c	650 kV BIL, HV Bushing for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16
1-4.1d	110 kV BIL, Neutral Bushing for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16
1-4.2	120 kV Surge Arrester for 2.18 MVAR, 110 kV, neutral reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16
1-4.3a	Complete Set of one or two units of each type and each size of auxiliary relay and contactor (two units are required where five units or more of each type and each size are provided per one reactor) for 55 MVAR, 525 kV, three phases shunt reactor for Item No. 1-2	1	TILS-01-S03	SKL3	16

**Neutral Reactor  
Specification No. 382**



**Substation Electrical  
Equipment Engineering Department**

<b>Ratings and Features</b>	<b>Designed :</b> 25/2/01	<b>Validated :</b> [Signature]	<b>Revision 1</b>	<b>Page 1/2</b>
<b>RF No. RX7811</b>	<b>Verified :</b> 25/2/01	<b>Approved :</b> [Signature]	<b>Dated :</b> 27 Dec 69	

a.	Type / Type of Cooling	Single Phase, Oil Filled, Outdoor / OA	
b.	Rated Frequency	50	Hz
c.	Rated Capacity	2.18	MVAR
d.	Current Rating		
	- Continuous	66	A
	- 10 Minutes	220	A
e.	Winding Voltage Rating		
	- Rated Voltage (High Voltage)	110	kV
	- Rated Voltage (Neutral)	15	kV
	- BIL (High Voltage)	650	kV
	- BIL (Neutral)	110	kV
	- Switching Surge (High Voltage)	-	kV
f.	Bushing Voltage Rating		
	- Rated Voltage (High Voltage)	110	kV
	- Rated Voltage (Neutral)	15	kV
	- BIL (High Voltage)	650	kV
	- BIL (Neutral)	110	kV
	- Switching Surge, Wet (High Voltage)	-	kV
g.	Bushing Creepage Distance		
	- High Voltage	≥ 2,760	mm
	- Neutral	≥ 280	mm
h.	Audible Noise Level (Internal noise only without external accessories such as sound panels, sound enclosure, dampers, sound absorbers etc.)	≤ 55	dB(A)
i.	Neutral Reactor Zero Sequence Reactance (Xn)	500	ohms
j.	Temperature Class of Winding Insulation	120	
k.	Winding Temperature Rise (Continuous at 105 % Rated Voltage and Rated Frequency)		
	- Average / Hottest Spot	≤ 60 / ≤ 75	°C
l.	Current Transformers		
	High Voltage Terminal		
	- Qty. per Phase	1	
	- Accuracy Class	C1000	
	- Continuous Thermal Current Rating Factor	1.0	
	- Ratio	50/100/150/200/250/300/400/450/ 500/600 : 1 A	
	Neutral Terminal		
	- Qty. per Phase	2	
	- Accuracy Class	C1000	
	- Continuous Thermal Current Rating Factor	1.0	
	- Ratio	50/100/150/200/250/300/400/450/ 500/600 : 1 A	
m.	Surge Arrester, Station Class, Tank Mounted on High Voltage Side (RF SA7D01)		
	- Qty. per unit	1	
	- Voltage Rating	120	kV

**Neutral Reactor  
Specification No. 382**



**Substation Electrical  
Equipment Engineering Department**

<b>Ratings and Features</b>	<b>Designed :</b> 287561	<b>Validated :</b> [Signature]	<b>Revision 1</b>	<b>Page 2/2</b>
<b>RF No. RX7811</b>	<b>Verified :</b> 2658	<b>Approved :</b> [Signature]	<b>Dated :</b> 27/10/69	

- n. Max. Permissible Shipping Dimension (W × L × H) 3.5 m × 8.0 m × 4.0 m (See Note 1)
- o. Applicable Standard ANSI/IEEE Std. 32

Note : 1. Exception to the weight and dimension limitation stated in Article : Clearance and Weight Limitations of Section E : General Conditions of Contract.  
2. The shunt reactor and neutral reactor shall be proposed from the same factory.