Dear All,

On behalf of Daya Bersih Sdn Bhd, I would like to invite you to bid price, as below details:

No	Descriptions
1	Date: 7/2/2023
2	Proposed: Replace SF6 gas at breaker ABB, replace cable, and repair faulty transformer no 2, at PPU International Islamic University Malaysia Kuantan Campus.

	The details are as follows:			
	Descriptions	Unit	RM	Total (RM)
	Mobilization and demobilization, load, unloading and transport of tools and equipment.	1 lot		
	To provide insurance for project and equipment for the unexpected	1 lot		
	To provide competencies 33kV for switching and PTW (7 Days).	1 lot		
	Breaker 33kV To carry out gas SF6 replacement work for panel ABB breaker H3, H4 and H5 . -To recover existing SF6 into empty cylinder - To open gas compartment, inspect and clean the compartment breaker H3,H4 and H5. -To replace drying agent/desiccant with new - To close back the compartment with new O-ring - To vacuum the compartment and fill up with new gas SF6 - To carry out leak test To check the newly filled SF6	3 nos		

	33KV ABB GIS testing - IR test -Contact resistance test - CB timing test - Operation and interlock test - AC pressure test - Relay 33KV check and trip test i. OCEF ii. Transformer Differential test iii. REF test To provide test plug for testing breaker gis ABB **Refer from attachment name plate Breaker ABB 33kV**	2 nos		
	To supply and install heater	6 nos		
	Replace timer	1 nos		
	Transformer 33kV Mobilization and demobilization as per contract - load, unloading and transport of oil filtration machine, Skid tank/drum, tools, hoses and equipment.	1 lot		
	To supply and replace gasket parts that is causing the leakage. -5 sheet 6.4mm Nebar white gasket -Donut/oil seal for LV bushing – gasket cable box 33kV & 11kV	1 lot		
	Transformer repair work as below:- -To drain out oil below bushing level inside skid tank/clean empty drums. -To replace gasket at LV bushing that causing the leakage	1 lot		

	-To refill previously drained oil through filtration machine. -To painted transformer after service work - to cleaning bushing 33kV and 11kV - to repair cable box chasing - to supply and replace all bolt and nut broken . *include supply mobile crane for liftng top cover work			
	OLTC Servicing Work:- -Supply manpower ABB OLTC trained specialist, tools and transportation to carry out servicing of one unit of **ABB OLTC type UBBRT 350/400** - Gasket for OLTC cover -To replace the oil in OLTC compartment via filteration machine -To carry out filteration until oil test the oil dielectric strength >60kV shall meet before energized the transformer -To supply 6 drum new transformer oil ***to provide certificate of OLTC ABB specialist** **Refer from attachment name plate OLTC**	1 lot		
	To perform filtration of transformer oil inside main tank after service work (not more 60 deg Celcius and results BDV>60kV, Moisture<15ppm) 24 hour to repair result paper/coil wet (lembab) - to perform testing FDS/DFR **(Frequency Domain Spectroscopy/Dielectric Frequency Response)**test and Tan Delta test to compare first result transformer. In case result paper/coil fail filtration 48 hour need to do. (moisture % below 2%) *** refer table insulation assessment**	1 lot		
	To perform filtration of transformer oil inside maintank after service work (not more 60 deg Celcius and results BDV>60kV, Moisture<15ppm) 48 hour to repair result paper/coil wet (lembab) - to perform testing FDS/DFR **(Frequency Domain Spectroscopy/Dielectric Frequency**	1 lot		

	Response) test and Tan Delta test to compare 24 hour filtration result tranfomer. To perform oil test before and after leak repair :- Measure dielectric strength (BDV) water content (ppm)			
	To collect transformer oil sample after filtration and send it to accredited lab for oil analysis. Analysis to be carried out: DGA (Maintank only) BDV (Maintank and OLTC) Moisture Content (Maintank and OLTC)	1 lot		
	To perform electrical testing for transformer: -Insulation resistance -Polarization Index -Turn Ratio -Static winding resistance test -Functional tx guard - Dynamic winding resistance **Refer from attachment name plate transformer**	1 lot		
	Cable To provide manpower, tools, equipments and standard accessories to lay HT cables (cabling works) in cable trench as follows: To supply and lay 3 x 1-Core 240mm2 Copper XLPE/ SWA/PVC cable from 33kV Gis – Outgoing to transformer 33kV including necessary accessories To carry out termination works for 3 x 1-Core 240mm2 Copper XLPE/ SWA/PVC cable from Feeder 33kV Gis ABB breaker and Outgoing to transformer 33kV including materials and standard / necessary accessories To provide manpower, equipments, tools and accessories to carry out commissioning test of the above inclusive of Insulation Resistance & Pressure test	25 mtr 1 lot 1 lot		

***Warranty Period 1 year for service and repair work**

Insulation assessment					
Measurement:	**CHG: (1)**				
Capacitance, pF:	**17392**	%DF:		**1.92**	
%DF @ 20°C:	**1.38**	*< 0.30% As new*	*0.30-0.50% Good*	*0.50-1.0% Deteriorated*	*> 1.0% Investigate*
Moisture, %:	**3.5**	*< 1.0% As new*	*1.0-2.0% Dry*	*2.0-3.0% Moderately wet*	*> 3.0% Wet*
Oil Cond, @ 25°C, pS/m:	**4.26**	*< 0.37 pS/m As new*	*0.37-3.7 pS/m Good*	*3.7-37 pS/m Service aged*	*> 37 pS/m Deteriorated*