

BILL OF QUANTITIES
SUPPLY, DELIVERY, INSTALL, TESTING AND COMMISSIONING RUMAH PAM KAMPUNG SANGLANG

NO	Description	Unit	Quantity	Rate (RM)	Total Price
1.0	Preliminaries Preliminaries costs for compliance with Condition of Contract and Specification	L/Sum	L/Sum		
SUB TOTAL 1					-
2.0	Pump House SCADA Monitoring System at rumah pam Kampung Sanglang Supply, deliver, install, testing and commissioning of Pump House Monitoring System comprised of the following elements.				
2.1	RTU c/w digital input, digital output, analog Inputs, PLC, Data logger, and controller for Pump House Control	Nos	1		
2.2	Master PLC, Supply install of programmable logic controller module unit (master PLC) 16 DI. 10DO, 1 port RS485 including automatic programming pump operation system for 1 pump, able to support MySMS® protocol	Nos	1		
2.3	Power Supply	Nos	1		
2.4	Lightning Protection Unit	Nos	1		
2.5	GSM/GPRS communication modem or equivalent communication system c/w antenna, panel and wiring.	Nos	1		
2.4	SMS alert and gate information request system.	Nos	1		
2.5	IP 65 control panel with double rubber protection door c/w control button, indicator lamps power supply	Nos	1		
2.6	Site wiring and cabling.	Nos	1		
2.7	Software for remote and local monitoring and control together wth programming and configuration for all installation sites.	Nos	1		
2.8	Programing and communication to link back each sites to new Master server.	Nos	1		
SUB TOTAL 2					-

3.0	Upgrade Montoring Station to SCADA Automation				
3.1	Existing programable RTU have to be UPGRADED Firmware to enable the SCADA Control Functions on the Sites With MySMS Firmware Enabled.	Nos	7		
SUB TOTAL 3					-
4.0	Intergrate to Exisiting Data Control Center				
	Supply, delivery, install, testing and commissioning of Master Server comprised of the following elements.				
4.1	Intergrate to Exisiting Data Control Center	Nos	8		
4.2	Upgrade Modula features contain of rainfall, water level, pump house & gate control information	Nos	1		
SUB TOTAL 4					-
5.0	Web Module				
5.1	Supply & designed web module in the modular concept using object oriented approach, multitasking environment and can be easily modified and upgradeable in the future to suit changing needs of the control centre.	lots	1		
SUB TOTAL 5					-
6.0	CCTV Camera Design, supply, delivery, installation, testing and commissioning of real time monitoring CCTV Camera for water level moniroting system	Lots	4		
6.1	Design,Supply & Delivery, Installation and testing and commissioning of Upgrade Manual CCTV to real time monitoring	Lots	1		
SUB TOTAL 6					-
7.0	Testing and commissioning Factory Acceptance Test, Pre-Test, Testing & Commissioning of complete system; Master station server and remote stations.	Lots	13		
SUB TOTAL 7					-
GRAND TOTAL					-

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 Nama :
 No. KP:
 Tarikh :

Cop Syarikat :