BOQ - Dual Turbo Engine

Project:	Dual Fuel Conversion of DG	Company Name				
		Contact Person				
Date		Telephone:				
		Email:				
SR. No.	**DESCRIPTION**	**Availibe (Yes/No)**	**Make**	**UNIT**	**QTY.**	
1.0	**Material Supply and Installation**					
1- (a)	GAS Train with the following components-					
1 -(b)	Gas Filter					
	PRV - Pressure regulating valve					
	Double Solenoid (24 DC) on/off Valve					
	Tee					
	Zero Pressure regulator (ZPR)					
	Pressure Sensors for Gas Supply Pressure and Gas Outlet Pressure					**1 Fuel Control valve per Air Filter of the accurate insertion of gas in each bank**
	Dynamic Fuel Control Valve (Position control valve) with response time of 20 ms					
1 -(c)	Air gas Mixer with Insert					
1-(d)	Pressure Sensor for Manifold Air Pressure					
1-(e)	Vibration sensor					
1-(f)	Thermocouples for manifold and exhaust temperature					
1-(g)	Control Panel with PLC & HMI, with response time of <1s					
1-(h)	Wire harness, connector etc					
1-(i)	Hump hose, gas hose pipe, etc					
1-(j)	Pipe fitting, misc items					
2.0	**Safety**					
2- (a)	Exhaust gas temperature, protecting against overheating and over fueling.					
2 -(b)	Engine vibration, limiting gas in cases of misfire and unstable combustion or speed governing issues.					
2 -(c)	Generator frequency, allowing the generator to operate within the OEM's original governor classification.					
2 -(d)	Monitoring of generator load through Manifold Air Pressure, protecting against overload conditions and turning off gas at low loads to avoid incomplete combustion.					
2-€	Dyanmic control of flow of gas per second through PLC on the basis of load, vibration and temperature setpoints, to avoid insertion of excess gas at any point of time					
2-(f)	Manifold Air tempearure, limiting gas supply if air fuel mixture temperature increases					
3.0	**Compliance**					
3- (a)	TPI (Third Party Inspection) and documentation as per Autorised city gas agency requirement for commissioning of Gas if requirment .					
3 -(b)	Approval from Chief Electrical Inspector/ Pollution control Board	Dual Fuel solution is approved by NGT/CPCB/HSCPB				

DG, to ensure of cylinders