TECHNICAL QUESTIONNAIRE

For Bi-fuel Conversion of SLOW-SPEED ENGINE (UP TO 1000 rpm)

GENERAL DATA

(**Note:** Copy (or scan) of technical parameters from engine manual will be very helpful.)

CUSTOMER DATA

Name	
Address	
Responsible person	

GENERATING SET PARAMETERS

Nominal output (prime)		kVA
Nominal output (prime)		kWe
Usual on site load		kWe

Year of installation		
Running hours per year		hours
Total running hours		hours
Overhauling period		hours
Hours since last overhauling		hours

ENGINE PARAMETERS

Producer		
Model No.		
Serial No.		
Nominal speed		RPM
Number of cylinders		
Bore		mm
Stroke		mm
Injection timing		°before T.D.C.
Compression ratio		---
Cylinder arrangement	In-Line	V-Type
Suction inlet to cylinder	Single	Double
Strokes*	4-Stroke	2-Stroke
Fuel (diesel oil, HFO etc.)		
Specific consumption at nominal load		g/kWh
Consumption at ____ kWe		lit/h; kg/h

Turbo charger	☐ YES	☐ NO
Number of turbo chargers		
Maximum manifold air pressure		Bar; PSI
Temperature of boost air after intercooler		°C

Speed governor type	Mechanical	Electrical
	Hydraulic	Electro-Hydr.
Producer		
Model No.		
Actuator model No.		

Valve timing

Inlet valve opens		°before T.D.C.
Inlet valve closes		°after B.D.C.
Exhaust valve opens		°before B.D.C.
Exhaust valve closes		°after T.D.C.

ADDITIONAL DATA REQUIRED

Compressed air availability	☐ YES	☐ NO	Pressure	Bar, PSI

FOR HFO ENGINE CONVERSION ONLY

HFO net calorific value		kcal/kg	Temperature, which is the HFO heated to	°C
Minimum permissible load during HFO operation		kW	HFO viscosity at this temperature	cSt

FUEL PRICE INFORMATION

Gas Price		litre, m3
Fuel Price		litre, kg
Price of the electricity from the public grid		kW/h

SPECIFIC GAS INFORMATION

Type of gas		
Gas pressure		Bar, PSI or whichever standard unit
Net calorific value		$kcal/m^3$ or whichever standard unit

GAS COMPONENTS:

Methane CH4		Vol.%, mole
Ethane C2H6		Vol.%, mole
Propane C3H8		Vol.%, mole
Iso-Butane N-C4H10		Vol.%, mole
N-Butane I-C4H10		Vol.%, mole
Iso-Pentan I-C5H12		Vol.%, mole
N-Pentan N-C5H12		Vol.%, mole
Hexane C6H14		Vol.%, mole
Nitrogen N2		Vol.%, mole
Carbon Dioxide CO2		Vol.%, mole
Others		Vol.%, mole
Total		**Vol.%, mole**

Responsible person for the customer:

Date: _____

Name: _____

Signature: _____

***** Our conversion system is applicable only to 4-stroke engines