



# WA1tTSILA

## Scope of Supply

Section	Description	QTY	Responsibility of Wärtsilä Finland	Responsibility of Wärtsilä Australia	Responsibility of Local Contractor	Responsibility of Buyer
A	POWER GENERATION EQUIPMENT					
A1	GENERATING SET					
A1.1	ENGINE					
	Wärtsilä 20V34DF engine	6	X			
A1.2	GENERATOR					
	Generator: 11KV, 50Hz, IP23, F/B	6	X			
	CT's for metering (set)	6	X			
	PT's for metering					X
	Flexible coupling	6	X			
A1.3	BASE FRAME FOR ENGINE AND GENERATOR					
	Common base frame for engine and generator	6	X			
	Steel springs (set)	6	X			
	Fastening equipment (set)	6	X			
A1.4	CONNECTIONS					
	Flexible connections between engine and external piping	6	X			
	- Flexible hoses and gaskets (set)	1	X			
	- Cooling water bellows (set)	1	X			
	- Exhaust gas bellows	2	X			
	- Charge air bellows compensator	2	X			
A1.S	ENGINE PLATFORMS					
	Engine maintenance platform prefabricated	6	X			
A2	MECHANICAL AUXILIARY SYSTEMS					
A2.1	AUXILIARY MODULES					
	Engine auxiliary module	6	X			
	- Fuel oil filter	1	X			
	- Fuel feed pump	1	X			
	- Return fuel pump	1	X			
	- Return fuel tank	1	X			
	- Pre heating unit	1	X			
	- Thermostatic valve high	1	X			

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	temperature water system					
	- Thermostatic valve low temperature water system	1	x			
	- Pressure increasing pump	1	x			
	- Piping and insulation	1	x			
	- Valves and gauges	1	x			
	- Module control panel	1	x			
	Exhaust gas module	6	x			
	- Low temperature expansion tank	1	x			
	- Charge air silencer	2	x			
	- Exhaust gas branch pipe	1	x			
	- Purge fan unit	1	x			
	- Safety vent piping	1	x			
	- Piping and insulation	1	x			
	- Oil mist separator	1	x			
	Auxiliary module platform	6	x			
A2.2	FUEL SYSTEM					
A2.2.1	LIGHT FUEL OIL SYSTEM					
	Light fuel oil unloading pump unit	3			x	
	Light fuel oil tank	1			x	
	Light fuel oil feeder unit	1	x			
	Light fuel oil cooler	2	x			
	Light fuel oil flow meter for total fuel consumption measurement	2	x			
	Piping and valves light fuel oil system inside engine hall	1			x	
	Piping and valves light fuel oil system outside engine hall	1			x	
A2.2.6	GAS SYSTEM (to be installed later when gas becomes available)					x
A2.3	LUBRICATING OIL SYSTEM					
	Lubricating oil unloading pump unit: fresh oil	1			x	
	Lubricating oil storage tank for fresh oil with a volume of 20 m3	1			x	
	Equipment for lubricating oil storage tank: fresh oil	1			x	

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	Lubricating oil service tank with a volume of 7 m3	1			X	
	Lubricating oil service tank equipment	1			X	
	Lubricating oil transfer pump unit (mobile)	1	X			
	Lubricating oil transfer pump unit (stationary)	1			X	
	Piping and valves lubricating oil system inside engine hall	1			X	
	Piping and valves lubricating oil system outside engine hall	1			X	
A2.4	COMPRESSED AIR SYSTEM					
	Starting air bottle	2			X	
	Starting air compressor unit - double	1			X	
	Instrument air compressor unit	1			X	
	Piping and valves compressed air system (set)	1			X	
A2.5	COOLING SYSTEM					
	Cooling radiator	6	X			
	Cooling radiator ladder and railings	6	X			
	Maintenance water tank unit (fresh water)	2	X			
	Piping and valves maintenance water system (set)	1			X	
	Piping and valves cooling system inside engine hall	1			X	
	Cooling system pipe insulation inside engine hall	1			X	
	Piping and valves cooling system outside engine hall	1			X	
A2.6	CHARGE AIR SYSTEM					
	Charge air filter	6	X			
	Weather hood	6	X			
	Ducting charge air system (set)	12			X	
A2.7	EXHAUST SYSTEM					
	Exhaust gas silencer	6	X			
	Bellows for exhaust gas silencer	12	X			
	Ducting exhaust gas system (set)	6			X	

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	Bellows for exhaust gas ducting	6	x			
	Safety vent counter flanges including rupture disk (for exhaust gas ducting)	14	x			
	Insulation exhaust gas ducting (set)	6			x	
	Exhaust gas stack pipe	6			x	
A2.8	OILY WATER SYSTEM					
	Piping and valves oily water system (set)	1			x	
A2.9	WATER TREATMENT SYSTEM					
	Water treatment unit	1				x
	Treated water storage tank with a volume of 10 m3	1			x	
	Treated water storage tank equipment	1			x	
	Water booster unit	2			x	
	Piping and valves treated water system (set)	1			x	
A2.10	FIRE PROTECTION SYSTEM					
A2.10.1	FIRE PROTECTION, COMMON					
	Fire water system container	1			x	
	- Diesel engine driven pump unit	1			x	
	- Electric motor driven pump unit	1			x	
	- Jockey pump	1			x	
	- Control system	1			x	
	- Sprinklers (set)	1			x	
	- Portable fire extinguisher	1			x	
	- Piping (set)	1			x	
	Fire water tank	1			x	
	Fire water tank equipment	1			x	
	Outdoor hydrant	10			x	
	Outdoor hose cabinet	10			x	
	Portable fire extinguisher (dry powder type)	10			x	
	Piping and valves fire water system inside engine hall	1			x	
	Underground piping and valves fire water system outside engine hall	1				x

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A2.10.2	ARE PROTECTION, ENGINE HALL					
	Hydrant valve pairs	10			X	
	Standpipe hose cabinet	10			X	
	Portable fire extinguisher (dry powder type)	22			X	
	Mobile foam unit	2			X	
A2.10.3	ARE PROTECTION, Electrical Building					
	Hose reel	1			X	
	Portable fire extinguisher (dry powder type)	4			X	
	Portable fire extinguisher (CO2 type)	6			X	
A2.10.8	FIRE PROTECTION, FIRE FIGHTING PUMP HOUSE/ CONTAINER					
	Wet pipe sprinkler system	1			X	
	Portable fire extinguisher (dry powder type)	1			X	
A <sub>2.10.18</sub>	FIRE PROTECTION, FUEL UNLOADING STATION					
	Portable fire extinguisher (dry powder type)	1			X	
A2.11	PIPE SUPPORTS AND CROSSOVERS					
	Pipe secondary supports	6			X	
	Storage tank area berm crossover	2			X	
	Day tank containment area concrete wall crossover	1			X	
	Pipe crossover at site area	4			X	
A7	AUTOMATION SYSTEM					
A7.1	OPERATOR'S STATION					
	WOIS workstation	2	X			
	WISE workstation	1	X			
	Uninterrupted power supply (UPS)	1	X			
A7.2	CONTROL PANELS					
	Central common control panel (CFA)	1	X			

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	Central generating set control panel (CFC) (including relay for 59N and 27TN 100% generator stator protection)	6	X			
	Differential protection relay	6	X			
	Auxiliary module panel	6	X			
A7.5	CABLES AND ACCESSORIES					
	Control and instrumentation cables - for equipment in Wartsila scope	1	X			
	Control and instrumentation cables - for equipment in Buyer's scope	1				X
A8	ELECTRICAL SYSTEMS					
A8.1	MAIN SWITCHGEAR (MV SYSTEM)					
	Main busbar	1			X	
	Generator cubicle	6			X	
	High impedance earthing transformer and resistor	6			X	
	Outgoing feeder cubicle	2			X	
	Station auxiliary transformer feeder cubicle	1			X	
	Measuring cubicle	1			X	
	Generator cubicle cable (set)	6			X	
	Generator neutral point cable (set)	6			X	
	Outgoing feeder cubicle cable (set)	2				X
	Cable terminations and cable fittings	1				X
A8.2	STATION SERVICE SYSTEM (LV SYSTEM)					
	Station auxiliary transformer	1			X	
	Black start unit	1			X	
	- Diesel generating set	1			X	
	- Light fuel oil tank	1			X	
	-Radiator	1			X	
	- Exhaust gas ducting and silencer	1			X	
	- Interconnecting pipes, valves and flanges (set)	1			X	
	- Electric panel	1			X	
	- Steel frame	1			X	
	-Container	1			X	

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	Low voltage switchboard	1			x	
	Radiator panels	6	x			
	Frequency converter (for cooling radiator)	6	x			
	Frequency converter (for engine hall inlet ventilation, generator side)	6			x	
	Station auxiliary transformer medium voltage cables (set)	1			x	
	Station auxiliary transformer low voltage cables (set)	1			x	
	Low voltage cables (set)	1			x	
	Cable ladders	6			x	
	Cable terminations and cable fittings	1			x	
A8.3	DC SYSTEM					
	DC system for engine and auxiliary control	2	x			
	DC system for MV system control	1	x			
A8.4	HIGH VOLTAGE SYSTEM (HV SYSTEM)					
A8.4.3	CONNECTION WITH LOCAL INDUSTRY					
	Local electrical study	1				x
	Local interconnect study	1				x
	Distribution cable	1				x
	Physical connection with local industry	1				x
A8.5	PLANT ELECTRIFICATION AND EARTHING					
	Safety earthing system (above ground)	1			x	
	Lighting and building electrification	1			x	
	- Electrification engine hall, material	1			x	
	- Electrification electrical building, material	1			x	
	- Electrification material for guard house	1			x	
	- Electrification accommodation building, material	1			x	
	- Electrification workshop and	1			x	

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	warehouse, material					
	- Electrification administration building, material	1			X	
	- Electrification material for fuel unloading station	1			X	
	- Electrification fuelling station, material	1			X	
	- Electrification lubricating oil unloading station, material	1			X	
	Lightning protection system	1			X	
	Fire detection system	1			X	
	- Fire detection engine hall, material	1			X	
	- Fire detection electrical building, material	1			X	
	- Rre detection fire fighting pump house, material	1			X	
	- Fire detection guard house, material	1			X	
	- Rre detection accommodation building, material	1			X	
	- Fire detection workshop and warehouse, material	1			X	
	- Rre detection administration building, material	1			X	
	Gas detection system	1			X	
	- Gas detection engine hall, material	1			X	
A9	TOOLS					
	Engine maintenance tools (set)	1	X			
	Engine hand tools (set)	1	X			
	Tools for turbocharger (set)	1	X			
B	CIVIL AND STRUCTURAL					
81	ENGINE HALL					
	Substructures engine hall	1				X
	- Foundations engine	1				X
	- Foundations engine hall	1				X
	- Concrete slabs and ramps	1				X
	- Plumbing and sanitary installations below 0-level	1				X
	Superstructures engine hall, material	1			X	



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	- Steel frame	1			X	
	- Steel frame charge air / exhaust gas pipe module support	1			X	
	- Foundation bolts	1			X	
	-External walls	1			X	
	- Internal! walls	1			X	
	- Intermediate floor	1			X	
	-Roof	1			X	
	-Doors	1			X	
	-Windows	1			X	
	-Finishing	1			X	
	- Plumbing and sanitary installations above 0-level	1			X	
	Superstructures engine hall, installation	1				X
	Process ventilation engine and auxiliary hall, material	1			X	
	Process ventilation engine and auxiliary hall, installation	1				X
	Cranes engine hall, material	1			X	
	Cranes engine hall, installation	1				X
83	ELECTRICAL / CON1ROL BUILDING					
	Substructures electrical / control building	1				X
	- Foundations	1				X
	-Concrete slabs and ramps	1				X
	- Plumbing and sanitary installations below 0-level	1				X
	Superstructures electrical / control building, material	1			X	
	- Steel frame	1			X	
	- Foundation bolts	1			X	
	- External walls	1			X	
	- Internal! walls	1			X	
	-Roof	1			X	
	-Doors	1			X	
	-Windows	1			X	
	-Finishing	1			X	
	- Plumbing and sanitary installations above 0-level	1			X	
	- Comfort ventilation and air conditioning	1			X	
	Superstructures electrical 1 control	1				X

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	building, installation					
85	OTHER POWER PLANT BUILDINGS					
85.3	FIRE FIGHTING PUMP HOUSE/ CONTAINER					
	Substructures fire fighting pump house	1				x
	Superstructures fire fighting pump house, installation	1				x
811	OIL STORAGE AND CONTAINMENT AREAS					
811.1	DAY TANK CONTAINMENT AREA					
	Substructures day tank containment area	1				x
	- Substructures for fresh lubricating oil storage tank	1				x
	- Substructures for lubricating oil service tank	1				x
	Day tank containment area slab and wall	1				x
811.2	FUEL STORAGE CONTAINMENT AREA					
	Substructures fuel storage containment area	1				x
	Fuel storage containment area slab and wall	1				x
811.3	FUEL UNLOADING STATION					
	Superstructures fuel unloading station, material	1			x	
811.6	LUBRICATING OIL HANDUNG FACILmES					
	Substructures lubricating oil unloading station	1				x
812	AUXILIARY STRUCTURES					
812.1	COOUNG SYSTEM STRUCTURES					
	Substructures cooling system	1				x
	Superstructures (i.e., radiator legs)	1			x	

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	cooling system, material					
	Superstructures cooling system, installation	1				x
812.2	SUPPORTING Structures					
	Substructures exhaust gas stack	1				x
	Superstructures exhaust gas stack, material	1			x	
	Superstructures exhaust gas stack, installation	1				x
	Substructures exhaust gas pipes	1				x
	Superstructures exhaust gas pipes, material	1			x	
	Superstructures exhaust gas pipes, installation	1				x
	Substructures pipe bridge	1				x
	Substructures pipe stair	1				x
	Substructures pipe supports	1				x
	Superstructures charge air filter and ventilation unit platform, material	1			x	
	Superstructures charge air filter and ventilation unit platform, installation	1				x
812.4	OIL/ WATER COLLECTING AND SEPARATING STRUCTURES					
	Substructures oily water collection and separating structures	1				x
812.5	WATER TREATMENT STRUCTURES					
	Superstructures water treatment structures, material	1				x
	Superstructures water treatment structures, installation	1				x
813	POWER TRANSMISSION AREAS					
813.1	AUXILIARY TRANSFORMER AREAS					
	Substructures black start unit (container)	1				x
	Superstructures black start unit (container), installation	1				x
	Substructures auxiliary transformer	1				x
	Conduits in auxiliary transformer	1				x

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	area, material and work					
	Fence auxiliary transformer area, material and work	1				X
814	Site WORKS					
814.1	EXISTING STRUCTURES AND DEMOLIDON					
	Demolition of existing structures	1				X
	Removal / relocation of existing cables and pipes	1				X
814.2	Site PREPARATION					
	Site clearing	1				X
	Removal of contamination	1				X
	Top soil removal	1				X
	Site levelling (cutting and filling)	1				X
	Site excavation	1				X
	Site blasting	1				X
	Site filling, material and work	1				X
	Soil improvement, material and work	1				X
814.3	UNDERGROUND NETWORK					
	Gas pipe to plant	1				X
	Water pipe to plant	1				X
	Sewage pipe to plant	1				X
	Drainage system, material and work	1				X
	Underground piping, material and work	1				X
	-Sewage	1				X
	- Oily water sewage	1				X
	-Water	1				X
	-Gas	1				X
	Sewage treatment and pump stations, material	1				X
	Sewage treatment and pump stations, installation	1				X
	Underground conduits, cables and lighting pole foundations, material and work	1				X
	Earthing network, material	1				X
	Earthing network, installation	1				X

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814.4	LANDSCAPING					
	Landscaping, material and work	1				X
	-Lawns	1				X
	Other	1				X
814.5	PAVING AND SURFACING					
	Access road, material and work	1				X
	Roads and parking areas, material and work	1				X
	Gravel areas, material and work	1				X
	Curb stones, material and work	1				X
814.6	SITE ACCESSORIES					
	Fence, material	1				X
	Fence, installation	1				X
C	SURVEYS, ENGINEERING AND DOCUMENTATION					
C1	SURVEYS AND INVESTIGATIONS					
	Soil investigation (made according to Wärtsilä directives)	1				X
	Topographical site survey	1				X
	Seismic survey	1				X
	Environmental study / modeling	1				X
C2	ENGINEERING					
C2.1	ENGINEERING MANAGEMENT					
	Engineering management of engineering activities supplied by Wärtsilä Finland	1	X			
	- Constructability review / design review for Items and work under the responsibility of Wärtsilä	1	X			
	- Prepare and maintain engineering schedule	1	X			
	Engineering management of engineering activities supplied by Local Contractor	1			X	
	Engineering management of engineering activities supplied by Buyer	1				X

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C2.2	PROCESS ENGINEERING					
	Process engineering of items supplied by Wärtsilä Finland	1	x			
	Process engineering of items supplied by Local Contractor	1			x	
	Process engineering of items supplied by Buyer	1				x
C2.3	MECHANICAL ENGINEERING					
	Mechanical engineering of items supplied by Wärtsilä Finland	1	x			
	Mechanical engineering of items supplied by Local Contractor	1			x	
	Mechanical engineering of items supplied by Buyer	1				x
C2.4	ELECTRICAL ENGINEERING					
	Electrical engineering of items supplied by Wärtsilä Finland	1	x			
	Electrical engineering of items supplied by Local Contractor	1			x	
	Electrical engineering of items supplied by Buyer	1				x
C2.5	CIVIL AND STRUCTURAL ENGINEERING					
	Civil engineering of items supplied by Local Contractor	1			x	
	Civil engineering of items supplied by Buyer	1				x
C3	DOCUMENTATION					
C3.1	CONCEPTUAL DESIGN DOCUMENTS					
	Site layout drawing	1	x			
	Power house plan and section drawings	1	x			
	Colour program	1	x			
	Process main flow diagrams	1	x			
	Main single line diagram	1	x			
C3.2	BASIC DESIGN DOCUMENTS					
	Site layout drawing	1			x	

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	Power house plan and section drawings	1			X	
	Process main flow diagrams and device lists (detailed)- respective scope	1	X		X	
	Main single line diagram (detailed) – respective scope	1	X		X	
	Front layout of main electrical cabinets- – respective scope	1	X		X	
	Dimensional drawings of major equipment - – respective scope	1	X		X	
	Generating set drawing	1	X			
	Dimensional drawing of generating set foundation	1	X			
	Off-site inspection and test plan (quality plan)	1	X			
C3.3	DETAILED DESIGN DOCUMENTS					
	Detailed design documents for respective scope	1	X		X	X
C3.6	COMMERCIAL OPERATION DOCUMENTS					
	Station manuals in English (set)					
	- As hard copy	3	X			
	- On digital media	3	X			
	- Installed into Wärtsilä Information System (WISE)	1	X			
D	TRANSPORTATION (CIF, Port Hedland, Australia)					
D1	TRANSPORTATION OF ITEMS SUPPUED BY WARTSILA FINLAND					
D1.1	MATERIAL AND SERVICES FOR LOGISTICS					
	Packing and marking of equipment	1	X			
D1.2	COLLECTION TRANSPORT					
	Transportation of equipment from place of manufacturing to place of shipment	1	X			
	Transport insurance from place of manufacturing to place of shipment	1	X			

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	Unloading equipment at place of shipment	1	x			
	Loading of equipment on Ship at port / place of shipment	1	x			
01.3	MAIN "TRANSPORT					
	Transportation of equipment from port / place of shipment to port / place of destination	1	x			
	Main transport / freight insurance	1				x
	Unloading of equipment at port / place of destination	1				x
	Transportation of equipment from port of entry to warehouse	1				x
	Unloading of equipment at warehouse	1				x
	Warehousing in country of destination (if needed)	1				x
	Arrange import license or import permit (if required)	1				x
	Import clearance	1				x
	Import taxes and duties (if required)	1				x
01.4	SITE TRANSPORT					
	Transport route preparation (if required)	1				x
	- Bridge reinforcements	1				x
	- Pavements for existing roads	1				x
	- Removal of obstacles	1				x
	Loading of equipment on truck at warehouse	1				x
	Transportation of equipment from warehouse to project site	1				x
	Transport insurance from warehouse to project site	1				x
	Unloading of equipment at final destination	1				x
E	TAXES / DUTIES / PERMITS / INSURANCE					
E1	AUSTRALIAN TAXES / DUTIES					
	Sales / VAT tax and local taxes	1				x
	Construction labor tax	1				x



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	Other taxes / duties (if required)	1				X
E2	PERMITS					
	Local business permit	1				X
	Construction permitting, approvals, stamps, etcetera	1				X
	Building permit	1				X
	Water permit	1				X
	Environmental permit	1				X
	Permitting procedures	1				X
	Local fees for doing construction	1				X
	Other permits (if required)	1				X
	Governmental approvals for Supplier's Personnel to provide Services (for respective scope)	1	X	X		
F	PROJECT MANAGEMENT					
F1	PROJECT MANAGEMENT AT WARTSILA FINLAND					
	Project management [Items and work under the responsibility of Wärtsilä]	1	X			
	Maintain project schedule [Items and work under the responsibility of Wärtsilä]	1	X			
G	CONSTRUCTION MANAGEMENT					
G2	TECHNICAL ASSISTANCE DURING INSTALLATION					
	Mechanical advisor 1 (number of months)	4		X		
	Mechanical advisor 2 (number of months)	2		X		
	Electrical advisor 1 (number of months)	3		X		
	Electrical advisor 2 (number of months)	2		X		
	Civil advisor				X	
	Travel Wärtsilä personnel (from Supplier's premises to Perth Airport)			X		
	Travel Wärtsilä personnel (from Perth Airport to Site)					X

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	Board and lodging Wärtsilä personnel					X
	Local transportation Wärtsilä personnel (between camp and project site)					X
H	TEMPORARY INSTALLATIONS AND ARRANGEMENTS					
H1	ROADS AND WORKING AREAS					
	Access road to site	1				X
	Temporary roads at site	1				X
	Preparation for engine intake	1				X
	Preparing of working areas	1				X
	Lay down area [provide]	1				X
	Lay down area [preparation]	1				X
H2	SITE OFFICE AND STAFF ARRANGEMENTS					
	Site office for Wartsila personnel including air conditioning, heating and social facilities	1				X
	Site office for Buyer personnel	1				X
	Furniture for Wärtsilä site office	1				X
	Computers, phones and other office furnishings for Wärtsilä site office	1				X
H3	UTILITIES					
	Telephone, telefax and internet connection to site	1				X
	Electricity source and hook up, main electrical panel	1				X
	Electricity consumption during construction	1				X
	Water source and hook up	1				X
	Water consumption during construction	1				X
H4	WASTE MANAGEMENT DURING CONSTRUCTION					
	Dust control	1				X
	Sewage collection and treatment	1				X
	Waste disposal	1				X
	Hazardous waste disposal	1				X

Section	Description	QTY	Responsibility of Wärtsilä Finland	Responsibility of Wärtsilä Australia	Responsibility of Local Contractor	Responsibility of Buyer
HS	SECURITY					
	Temporary fencing	1				x
	General security and site access control	1				x
	Security of Wärtsilä supplied equipment	1				x
H6	SAFETY					
	General safety and fire protection	1				x
	Safety for Wärtsilä personnel and Wärtsilä contractors	1				x
H7	DEMOBIUZATION					
	Restoring of areas	1				x
I	INSTALLATION					
I1	MECHANICAL INSTALLATION					
I1.1	MECHANICAL INSTALLATION OF ITEMS SUPPLIED BY WARTSILA FINLAND					
	Process tanks	1				x
	Fuel and water storage tanks	1				x
	Piping and ducting	1				x
	Engine generating sets, units and mechanical systems	1				x
I1.3	MECHANICAL INSTALLATION OF ITEMS SUPPLIED BY BUYER					x
I2	ELECTRICAL INSTALLATION					
	Installation of control and low voltage cables	1				x
	Installation of control, DC and auxiliary panels	1				x
	Installation of low voltage switchgears	1				x
	Installation of medium voltage cubicles	1				x
	Installation of medium voltage cables	1				x
	Installation of station auxiliary	1				x

Section	Description	QTY	Responsibility of Wärtsilä Finland	Responsibility of Wärtsilä Australia	Responsibility of local Contractor	Responsibility of Buyer
	transformers					
	Installation of transmission line	1				x
	Installation of cable raceways	1				x
	Installation of safety earthing system	1				x
	Installation of lighting and building electrification	1				x
	Installation of lightning protection system	1				x
	Installation of fire detection system	1				x
	Installation of gas detection system	1				x
J	COMMISSIONING AND START-UP					
J1	INITIAL FILINGS					
	Initial fillings of fuel oil	1				x
	Initial fillings of lubricating oil	1				x
	Initial chemicals for water treatment	1				x
	Initial fillings fresh engine water	1				x
J2	TECHNICAL ASSISTANCE DURING TESTING AND COMMISSIONING					
	Mechanical advisor (man days)	40		x		
	Electrical advisor (man days)	40		x		
	PLC programmer (man days)	40		x		
	Engine automation and instrumentation tuning (man days)	40		x		
	Travel Wärtsilä personnel (from Supplier's premises to Perth Airport)			x		
	Travel Wärtsilä personnel (from Perth Airport to Site)					x
	Board and lodging Wärtsilä personnel					x
	Local transportation Wärtsilä personnel (between camp and project site)					x
J3	TESTING PROCEDURES					
]3.1	WORKSHOP TESTS					
	Engine test according to standard program	6	x			

Section	Description	QTY	Responsibility of Wärtsilä Finland	Responsibility of Wärtsilä Australia	Responsibility of local Contractor	Responsibility of Buyer
	Third party inspectors (if required)	1				X
J3.2	CUSTOMER WITNESS WORKSHOP TEST					
	Allowance (number of persons)					X
	Travel (number of persons)					X
	Board and lodging (number of days)					X
	Local transportation (number of days)					X
J3.3	TESTS AND COMPLETION AT SITE					
	Fuel analysis sample (for site testing)	3	X			
	Stack emission measurement	1				X
	Noise emission measurement	1				X
	Emission measurement consultant	1				X
	Travel (number of persons)	1				X
	Board and lodging (number of days)	4				X
	Local transportation (number of days)	4				X
	Third party inspectors (if required)	1				X
	Fuel during start-up and commissioning	1				X
	Lubricating oil during start-up and commissioning	1				X
	Chemicals for water treatment during start-up and commissioning	1				X
	Fresh engine water during start-up and commissioning	1				X
J4	TRAINING					
J4.1	TRAINING AT WARTSILA FACILITY					
	Advanced engine training course (4 persons for 5 day period)		X			
	Power plant introduction course (4 persons for 5 day period)		X			
	Power plant electrification course (4 persons for 5 day period)		X			
	Trainees travel to training facility for training course(s) provided by Wartsila Finland (number of trips)					X
	Board and lodging trainees during					X

Section	Description	QTY	Responsibility of Wärtsilä Finland	Responsibility of Wärtsilä Australia	Responsibility of Local Contractor	Responsibility of Buyer
	training course(s) provided by Wärtsilä Finland (number of days)					
	Allowance trainees during training course(s) provided by Wärtsilä Finland (number of days)					X
J4.2	TRAINING AT SITE					
	Operation and maintenance training (number of days)	10		X		
	Electrical training (number of days)	5		X		
	Board and lodging training instructor (number of days)					X
	Local transportation training instructor (number of days)					X
	Training material (number of person)	10		X		

