

12.6 MW 2010 Used Wartsila W16V34SG Natural Gas Generator Sets



Harnessing Energy for Life



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## Description & Additional Notes

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EXCLUSIVELY FROM USP&E!

USP&E is selling: 12.6 MW 2010 Used Wartsila W16V34SG Natural Gas Generator Sets  
50Hz; 750RPM; 6600 Voltage

Units available: 2x

\*\*Note that price is for Both Units

If you are like us, you read every day about how thousands of fast growth companies struggle to find energy generation that is affordable, reliable and available for immediate shipping and installation on a turnkey basis from a company that really understands the complexities of integration of balance of plant and other site infrastructure.

At USP&E, we have been in business now for over 20 years and have offices in 9 countries. But more importantly, WE ARE OBSESSED WITH EACH CLIENTS JOURNEY TO ENERGY SUSTAINABILITY & RELIABILITY AND ARE DRIVEN TO GUIDE EACH CLIENT TO SUCCESSFUL INTEGRATION OF THE BEST IN CLASS TECHNOLOGIES.

This is important and a huge differentiating factor for our clients because USP&E isn't the hero of our story, you are. We will do everything possible to make sure you are successful, and we have over 20 years of satisfied clients and meaningful, long-term client engagements that prove this out. The potential delays related to permitting, land access, shipping, etc must be dealt with head-on and with urgency. We have helped hundreds of companies like yours for over 20 years.



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The process is really simple:

1. Quick, 30 min Engineering/Design Meeting so we Can understand Your project goals, timelines and budgets. ✓
2. Scope of work and supply to match our plants to what you need. ✓
3. Work together to finalise commercial and technical aspects into a contract and move forward with the project. ✓

Please remember, USP&E is not just an equipment broker. We are a GUIDE to energy project excellence. We offer full Engineering, Procurement, Construction and long-term O&M in over 190 countries around the world in order to make sure our client projects are a RESOUNDING success.

Some of the companies we are currently working with include the City of Neom, Barrick Gold, SPACE-X, Firefinch Gold, Kurdistan MOE, Ivanhoe Mining, Boogertman Partners, and Molo Graphite.

At USP&E, we understand how most companies struggle to find energy generation that is affordable, reliable and available for immediate shipping and installation on a turnkey basis. Your partner must be a company that really understands the complexities of integration of balance of plant and other site infrastructure, and not just be a broker. Ideally, your partner offers complete O&M and warranty support services. This is what we have been doing for over 20 years.

### TECHNICAL SPECIFICATION – WARTSILA GAS ENGINES & ALTERNATORS:

Sr. No.	Particulars	Specifications
<b>A</b>	<b>Engine Main data:</b>	
1	Configuration	V Engine
2	Number of Cylinder	16 Nos.
3	Cylinder bore X Stroke (mm)	340x400
4	Rated Speed (RPM)	750
5	Mean Piston Speed (m/sec)	10
6	Mean effective pressure (bar)	19.8
7	Swept volume per cylinder (dm <sup>3</sup> )	36.3
8	Compression ratio	12:01
9	No. of inlet valves	2
10	No. of outlet valves	2
11	Direction of rotation faced towards fly wheel	Clockwise
12	Length (mtr)	8.21
13	Width (mtr)	3.3
14	Height (mtr)	3.6
15	Weight (kg)	67000
16	Model	W16V34SG
17	Make	Wartsila, Finland
19	Installation date	1 <sup>st</sup> unit - 31/03/2011 & 2 <sup>nd</sup> unit- 26/03/2011
20	Rated Output(Kw)	6375
21	Cycle stroke	Four Stroke



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22	Starting System	Compressed air (30Kg/cm2)
23	Supercharging system	Exhaust Gas Turbocharger
24	Fuel	Natural Gas
25	Lubrication	Forced Lubrication(Engine Driven Pump)
26	Total Running hours	1 <sup>st</sup> unit - 13533 hours & 2 <sup>nd</sup> unit – 13543 hours
<b>B Generator Main Data:</b>		
1	Power	7968 kVA
2	Power Factor	0.8
3	Nominal Voltage	6600 V
4	Rated Current (In) Amp	735A
5	Voltage adjustment Range %	+5 %
6	Frequency (Hz)	50 Hz
7	Speed (RPM)	750 RPM
8	Overspeed(RPM)	900 RPM
9	Continuous Short circuit Current	>2.5 X In
10	Insulation class	F
11	Temperature rise	F
12	Cooling method	Air cooled
13	Enclosure	IP 23
14	Standard	IEC60034

### TECHNICAL SPECIFICATION – WHRBS:

Sr. No.	Description	Details
1	Make	Thermax, Pune
2	Type	Water tube, single drum, Re-circulation
3	Date of Commissioning	20/05/2011
4	Exhaust gas Quantity Kg/hr.	38520
5	Exhaust gas inlet temperature Deg. C	394
6	Exhaust gas Outlet temperature Deg. C	164
7	Exhaust gas Pressure drop from damper inlet to chimney inlet mmWc	140
8	Feed Water Temperature Deg. C	95@ Economiser inlet
9	Losses Considered	2% Radiation & 1% Blow down
10	Waste Heat Source	Exhaust Gas From gas Engine
11	Steam gen Capacity of Each WHRB in Kg/Hr.	4300 Kg/ Hr.
12	Heating surface area	1500Sq. Mtr
13	Steam Pressure Kg/cm2 (g)	13 kg/cm2 (g)
14	Steam Temperature Deg. C	Saturated
15	Exhaust gas composition % Vol	CO2-4.65, H2O-11.6, N2-72.5, O2-10.2

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### SCOPE OF SUPPLY:

Sr. No.	Name of Equipment	Qty.	Remarks
1	Complete Gas Engine with Alternator sef. Capacity 6.375 Mw each	2 Nos.	Engine - Wartsila make & Alternator - AVR make
2	Gas regulating unit	2 Nos.	RMG make
3	Oil bath fitter unit	2 Nos.	
4	Charge air silencers	2 Nos.	
5	Gas Filtration unit	1 No.	
6	Maintenance Water Tank capacity 5000 ltrs each	1 No.	
7	Exhaust gas ventilation unit	2 Nos.	
8	Engine Pipe module	2 Nos.	Wartsila make
9	Engine jacket water cooling PHE	2 Nos.	Alga Laval make
10	Crank case breathers	2 Nos.	
11	Jacket water expansion tanks, capacity 300 ltrs each	2 Nos.	
12	Exhaust gas piping	2 sets	
13	Completes Waste Heat Recovery Boiler set capacity 4.3 TPH each	2 Nos.	Make – Thermax
14	WHRB Re-circulation pumps	4 Nos.	Make Suzler
15	WHRB exhaust gas diverter dampers	2 Nos.	Make – Indira Dampers
16	WHRB Electrical panels	2 Nos.	
17	WHRB steam drums	2 Nos.	
18	WHRB exhaust gas ducting	2 sets	
19	Gas engine Auxiliary electrical panels	2 Nos.	
20	Gas engine control panels	2 Nos.	
21	Gas Engine synchronization panel	1 No.	
22	Wartsila WOIS system with PC	1 No.	
23	Wartsila WISE system with PC	1 No.	
24	Gas Engine structure & platforms	2 Nos.	
25	WHRB Structure & platforms	2 Nos.	
26	Exhaust gas Chimneys (30 mtrs each)	2 Nos.	
27	Gas/air/oil piping	Lot	

# Specifications



Manufacturer	Wartsila
Model	W16V34SG
Year	2010
Condition	Used
Location	Middle East
Price	\$2,242,500.00
Category	Natural Gas
Subcategories	<ul style="list-style-type: none"><li>1 - 9 MW</li></ul>
Stock Number	USP009523
Wattage	12.6 MW
Hours	Low Hours
Frequency	50 Hz
Fuel type	Natural Gas
Voltage	6600
Balance of Plant Available? (BOP)	-

## Asset Images



- Images may be representative, and actuals can be supplied upon request.



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