

# Craigie Engineering Sales and Services Ltd.



Specialists in the Valuation, Marketing, Sourcing and Relocation  
of Surplus Power Plant & Auxiliary Equipment

## FOR SALE : Jan 2012 – 60 Hz

These units are from our databases which list over 90,000MW of surplus power plant.

If you don't see what you need drop us an e-mail: [mike@cess.co.uk](mailto:mike@cess.co.uk)

ALT = Alternator	BO = Boiler	CO = Compressor	DE = Diesel Engines
GT = Gas Turbine	STG = Steam Turbines	TF = Transformer	WT = Wind Turbine

### GTMM8079

**4 X GE Frame 7FA gas Turbines unused  
2002 with steam turbines**



### DEMM9109

**2 X NEW Wartsila  
6L32, 2,880 kW,  
AVK 6.6 kV 60 Hz,  
Alternators  
720 RPM,  
unused, 2007**



### DEMM9113-4

**2 x NEW 1.02 +  
2 x 1.36 MW,  
60 Hz, 440 V  
Wartsila 6L & 8L20  
MDO Gen Sets  
Unused (2007)**



### DEMM9219

**12 x 2.44MW  
Marine/MDO  
60 Hz, 690 V  
720 RPM  
Daihatsu 8DK-28  
(2010)**

### GTMM9237



### GTMM9237

**2 x GE Frame 5  
Zero-houred  
Gas Turbine  
rotors  
(2011)**

### GTMM9056

**37.4 MW Frame 6B-6531  
with 240,000 lbs/hr  
Vogt HRSG  
Natural Gas  
167,000 Hours  
(1984/85)**

### DEMM9198

**4 x 2.5MW Bergen  
KC V16, 900 RPM  
diesel gen sets  
(1987)**

### GT MM9189

**4 x 179MW,  
60 Hz, unused  
GE Frame 7FA-03  
18 kV gas fuel,  
Gas Turbine  
Generators  
(2002)**

### GTMM9024

**39MW 13.8 kV, 60Hz  
GE Frame 6551B  
Gas Turbine Generator  
with HRSG Natural Gas,  
Speedtronic Mk V  
57,463 Hours, ,  
Overhauled @ 48,000 hrs  
(1998)**

Tel: +44 (0)7802 916577

E-mail: [mike@cess.co.uk](mailto:mike@cess.co.uk) Homepage: <http://www.cess.co.uk>

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60 Hz

**GTMM9169**

8 x 85MW GE Frame  
7EA 13.8 kV 60 Hz  
gas turbines w 4 x  
13.8/345 kV  
Transformers  
(2000)



**GTMM9141**

1 x 7.9MW  
13.8 kV 60 Hz  
Alstom Tempest  
Gas Turbine,  
low hours from start-  
up duty  
zero-houred  
(2003)

**GTMM9177**

3 x NEW GE  
LM6000PD  
DLE Sprint  
47MW, gas fuel,  
13.8 kV  
2010

**GTMM9176**

3 X new  
Pratt & Whitney FT 8  
25MW dual fuel  
mobile-pac units  
13.8kV  
60 Hz with Brush  
BDAX7.290ER  
alternators  
(2010)

**GT MM9039**

27MW  
Gas Turbine Generator  
60Hz.  
Westinghouse  
W251 B2/B8  
(1974)

**GTMM9011**

2 x 25 MW, 60 Hz  
GE Frame 5 P  
13.8 kV, gas

**GTMM9007**

3 x GE Frame 5P,  
60 Hz 13.8 kV,  
liquid fuel  
(1978)

**GTMM8108**

4750 kW Taurus T60-  
7802 unused gas fired  
Compressor drive with  
C505U Compressor  
Suction 105 psi,  
Discharge 309 psi  
OEM Warranty  
(2003)

**GTMM8075**

6 MW, 3.3 kV, 60 Hz  
Kawasaki PUC60  
gas turbine  
37,000 hrs  
(1999)



**GTMM8071**

6 X 65 MW, 13.8 kV,  
60 Hz GE Frame 7E  
(7001B-7001E) gas  
turbines  
(1970)

**GTMM8083**

2 X 172 MW,  
18 kV, 60 Hz  
GE Frame 7FA  
unused  
gas turbines



**GTMM8068**

6.5 MW, 13.8 kV,  
60 Hz Orenda OT-F3  
gas/liquid fired  
gas turbine  
(1992)

**GTMM8063**

7.2 MW, 4.16 kV,  
Solar Taurus 70  
gas fired turbine in  
CCGT with  
GE 3.5 MW  
Steam Turbine  
(2001)

**GTMM9187**

2 X GE LM2500  
60 Hz  
gas turbines  
30,000 hrs

**GTMM9213**

2 x GE LM5000 34MW  
dual fired  
Gas Turbines  
60Hz 13.8 kV  
Brush Alt  
(1991)

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60 Hz



**GTMM8016**

4.8 MW, 12,470 V  
Solar Centaur 50 Gas  
Turbine Generator  
In cogen plant with  
25,000 lb/hr HRSG  
(40,000 lb/hr w duct  
burner) 20,000 hrs  
(2005)

**GTMM8015**

30 MW, 13.8 kV  
Rolls-Royce RB211  
6562DLE  
Gas Turbine,  
500 hours  
peaking duty  
(2001)



**GTMM9173**

**2 X 3000 kW  
60 Hz 12,500V  
Allison 501KB  
liquid fuel  
standby units  
(1982)**

**GTMM9152**

**2500 kW Solar  
Centaur 4501  
dual fuel  
4160V  
Gas Turbine  
gen set**

**GTMM7092**

18 MW, 13.8 kV  
GE MS-5000/5341  
Gas Turbine  
Generator  
57,380 hours  
(1973)



**GTMM9071**

Westinghouse  
W251B2/B8 38  
MW, 13.8 kV, 60 Hz  
gas.dual fired,  
low hours 1975,  
zero-houred 1991

**GTMM9106**

**2.2 MW 4160V,  
60 Hz Diesel fuel  
Black start  
KAWASAKI MIT-01  
GAS TURBINE  
Only 77 hours  
(1991)**

**GTMM9255**

**Multiple 12.9MW  
NEW Siemens  
SGT400 (Cyclone)  
dual fuel Gas Turbines,  
60 Hz, 13.8 kV  
Ex Stock from cancelled project  
(2011)**

**STGMM9133**

**49.5MW, 13.8 kV  
60 Hz 865 psig,  
800 F New steam  
turbine genset  
zero Hours  
(2009)**

**GTMM9258-59**

**Multiple standby  
utility-maintained  
gas turbines,  
W191 & W251  
60 Hz, 13.8 kV  
Low hours from  
standby duty**



**STGMM9032**

**52 MW, Shin Nippon  
condensing  
Steam Turbine  
388° C (730 ° F)  
97 bar (1,400 psi)  
No Alternator or  
Condenser  
UNUSED (2007)**

**STGMM9146**

**Unused TC4F-26  
450MW Hitachi  
60 Hz condensing  
Steam Turbine  
2400 psi @ 1000 F  
(1977)**

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**DEMM9033**

2 x 5 MW,  
6.6 kV  
Niigata Gen Sets  
(1988)

**DEMM9149**

3 x 5.7MW 60Hz  
600 RPM  
Niigata  
Diesel Gen Sets  
(2002)



**DEMM9023**

4 X Daihatsu 8DK-32  
HFO diesel gen sets,  
6600 V, 720 RPM,  
68000 hours,  
well maintained  
(1997)

**DEMM9125**

2 x 4950 kW,  
11.4 kV, 60 Hz  
Niigata 18V32 CLX  
diesels 600 RPM,  
<7,000 hours (1999)



**DEMM9004**

2 x 1300 kW,  
480 V,  
60 Hz  
Deutz TBG620V16

**DEMM9119**

5.9 MW 2400 V 60 Hz  
Wartsila 16V32E  
720 Rpm HFO,  
114340 Hours  
1993  
Overhauled 2007



**DEMM9199**

2 x 2.5MW  
JENBACHER  
4140V  
GAS ENGINE  
GENERATORS

**DEMM8190**

Wartsila 8L20  
1,060 kW,  
900 RPM,  
60 Hz, 480 V,  
HFO  
(1994)

**DEMM8162**

4 x 1.75 MW,  
480 V, 60 Hz,  
Caterpillar XQ1750  
Diesel gen sets  
(1998-99)



**DEMM9093**

6 x NEW 3840 kW,  
Wartsila 8L32, 720  
RPM, 60 Hz  
HFO diesels  
with Siemens 6.6 kV  
60 Hz alternators,  
unused 2009

**DEMM8188**

2 x 5 MW  
4160 V, 60 Hz,  
Pielstick 16PA6BV280,  
900 RPM,  
HFO Firing,  
28,000 hours  
(2000)



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**DEMM8174**

**2 X 7 MW  
Enterprise  
Delaval  
DGSRV 16-4  
4160 V, 60 HZ  
450 RPM  
GAS (1987)**

**DEMM8173**

3 X 1.1 MW, 600 V,  
Caterpillar 3512 B  
Industrial diesel  
gensets  
0 hrs  
(2008)

**DEMM8169**

3 x 3.45 MW,  
13.8 kV, 60 Hz,  
Caterpillar 3612 STD  
Diesel gen sets  
16,500-18,500 hrs  
(1988-89)



**DEMM8089**

8 x 1.8 MW,  
4.16 kV/60 Hz, ,  
900 rpm,  
Hyundai 9H21/32  
trailer-mounted  
diesel gen sets

**DEMM8141**

5 x 6 MW,  
Sulzer Zodia  
12ZV 40/48  
13.8 kV, 60 Hz,  
HFO/Diesel gen sets  
(1992-95)

**DEMM8087**

20 x 1.82 MW, 480 V,  
60 Hz,  
Caterpillar 3516B  
New units 10 week  
delivery



**DEMM8056-57**

2 X 1.25 MW +  
1 X 920 kW,  
60 Hz, 450 V,  
720 rpm  
Diesel Gen Sets  
(1978)

**DEMM8052**

2.4 MW, 60 Hz,  
SACM  
CrepelleCR24v16  
Dual fuel unit  
38000 hrs



**STGMM9102**

**29.3MW MHI Coal &  
oil-fired boiler with  
29 MW MHI COND  
TURBINE  
60 Hz, 11.4 KV,  
1600 PSI, 538 C 87  
PSI extraction (1990)**

**STGMM9101**

**8790 KW  
Dresser Rand  
Turbodyne  
13.2 KV, 60 Hz,  
850 psi, 825 F, 20  
psig backpressure  
170 psi extraction  
1990**

**STGMM9118**

**2 X 75MW Mitsubishi  
condensing  
steam turbines  
1841 psi, 13.8 kV  
(SHUT DOWN 2002)**



**STGMM9094**

20 MW GE Cond  
60 HZ, 325 psi 700 F  
(1929)

**STGMM9066**

34.5 MW GE 800 psi,  
60 Hz, condensing  
Steam Turbine  
1985

**STGMM9119**

**2 X 325 MW  
24 kV Alstom  
cond steam turbines  
3292 psi  
(1977)**

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60 Hz



**STGMM9044**

380 MW 22kV 60Hz  
Westinghouse  
Condensing Turbine  
2400 psi  
1000 deg F  
major overhaul 2004  
(1963)

**STGMM9036**

4.4 MW  
MITSUBISHI G-723  
Steam Turbine  
Generator  
375<sup>0</sup> C (707<sup>0</sup> F)  
37 kg/cm<sup>2</sup> (526 psi)  
3,300V  
(1979)



**STGMM8167**

13 MW, 60 Hz,  
450 psi,  
15 psig back,  
extraction at 155 psi

**STGMM8161**

Condensing  
2 x 7,500 kW,  
60 Hz,  
600 psi  
850F

**STGMM8145**

194 MW, 20 kV, 60 Hz  
3,600 rpm, ,  
1,890 psig,  
1,000 F  
GE Steam Turbine,  
condensing



**STGMM8144**

165 MW, 13.8 kV,  
1,800 psig, 1,000 F  
Westinghouse Steam  
Turbine, condensing  
(1965)

**STGMM8137**

22 MW, 13.8 kV, 850  
psig, 900 F  
GE Steam Turbine,  
condensing  
<8,500 hrs  
(1955)



**STGMM8079**

3 x 80 MW,  
14.4 kV, 60 Hz,  
1450 psig, 1000 F  
GE Steam Turbine,  
condensing

**STGMM8075**

84 MW,  
13.8 kV, 60 Hz,  
1479 psig, 1000 F  
Mitsubishi TAP-TBP  
Steam Turbine,  
condensing  
(2002)



**STGMM8063**

85 MW,  
60 Hz, 14.4 kV,  
1400 psig, 1000 F  
Westinghouse Steam  
Turbine

**STGMM9010**

20 MW,  
60 Hz, 14.4 kV,  
Westinghouse  
Condensing Steam  
Turbine Generator  
(1947 Last Overhaul  
2001)

**STGMM8051**

7 MW,  
60 Hz, 4.16 kV,  
650 psig, 750 F,  
ASEA Condensing  
Steam Turbine  
(1992)

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**STGMM8015**

37 MW,  
60 Hz, 13.8 kV,  
850 psig, 900 F,  
Brown Boveri  
Condensing Steam  
Turbine Generator

**STGMM8008**

24 MW,  
60 Hz, 13.8 kV,  
850 psig,  
GE Hydrogen Cooled  
Steam Turbine  
Generator

**STGMM8007**

37 MW,  
60 Hz, 13.8 kV,  
3,600 RPM, 850 psig,  
Westinghouse  
Steam Turbine  
Generator  
(Extraction 65 psi)

**STGMM7093**

4 X 30 MW,  
60 Hz, 13.8 kV,  
3,600 RPM,  
Metropolitan Vickers  
Turbo Generators

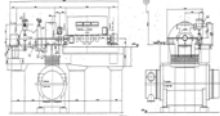


**STGMM9128**

**2 x 755MW GE  
Condensing steam  
turbines, 22 kV,  
3500 psi, 1000 F  
3800 RPM  
(1970)**

**STGMM7016**

Unused 50 MW,  
60 Hz, 11.4 kV,  
1800 psi,  
condensing steam  
turbine  
(1999)



**STGMM7009**

Unused 2.1 MW,  
Elliott condensing  
steam turbine  
460-700 psi inlet,  
0 – 15 psi out  
(2002)

**STGMM9100**

**12 MW, 60 Hz  
13.8 kV 1450 psi,  
950 F, 1995,  
only ran for a few  
thousand hours**



**STGMM9111**

**2,821 kW, 2300 V,  
60 Hz 400/125 PSIG  
MURRAY Back  
pressure Steam  
Turbine Generator  
(new 2002)**



**STGMM9109**

**16 MW, 60 Hz  
CCGT, Condensing  
extraction turbine,  
extractions at 155  
& 15 psig  
(1991)**

**DEM9219**

**12 x 2440 kW  
690V 720 RPM  
Daihatsu  
8DK28  
GEN SETS  
(2010)**

**DEM9129**

**Wartsila  
16V32E, 60 Hz  
HFO Diesel  
2400 V, 5907 kW,  
720 RPM  
(1993)**



**GTMM9137**

**8 x 11.25MW  
60 Hz  
GE Frame  
10B1  
Gas Turbines  
(2001)**



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60 Hz

## CESS Project Experience

		Valuation	Marketing	Sourcing	Sale
Gas Turbines	Number	501	256	169	79
	Capacity (MW)	27522	12751	6460	2645
Steam Turbines	Number	201	134	59	37
	Capacity (MW)	22371	12528.5	8646	1362
Diesel Engines	Number	540	279	203	102
	Capacity (MW)	2430.5	1378.4	833.4	254.4
Barges	Number	35	19	91	6
	Capacity (MW)	1873	973	5452	354
Transformers	Number	218	130	84	45
	Capacity (MW)	8198.9	3194.4	1134.4	616.4

### CESS History:

Craigie Engineering Sales & Services Ltd (CESS) have to date been instrumental in the sale of 79 gas turbines (total 2,645MW), 37 steam turbines (1,362MW), 102 diesel/gas engines (254MW), 6 Barges, and 45 transformers (total 616 MVA).

CESS has now reached an impressive total of over **62,395MW** of valuation experience in the past 15 years and these valuations (> **US\$3,413M**) have included:

- 601 gas turbines (including Allison, Rolls Royce, GE, Solar, Pratt & Whitney, Fiat, Ruston, GEC Alstom, Westinghouse, Mitsubishi, Siemens & ABB/Alstom)
- 201 steam turbines (including AEG, ABB, Ansaldo, Blohm & Voss, Elliott, Fuji, GE, Hitachi, Westinghouse, Siemens, Terry, Mitsubishi, Parsons, Stal, Allen, KKK, Peter Brotherhood, Daniel Adamson, AEI/EE, Worthington, Zamec & Alstom)
- 540 diesels (including Niigata, Pielstick, Crossley, Colt, Polar, MTU, MWM Deutz, Mirrlees, Enterprise-De Laval, Superior, MAN/B&W, Wartsila/NSD, Ruston, Cummins, Caterpillar/MAK, Rolls Royce/Ulstein/Allen)

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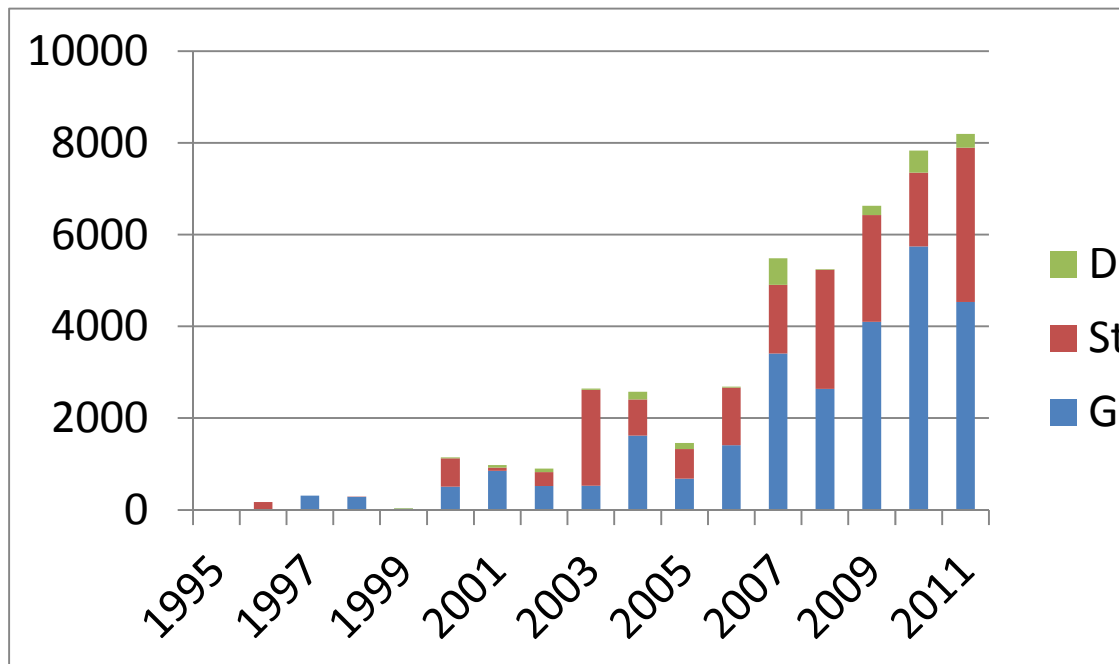
# Combustion, Energy and Steam Specialists Ltd.



60 Hz

**We have already undertaken  
Due Diligence on the Invenergy GE Frame 7FA units with BOP  
and Steam Turbines.**

**This year our valuations have already exceeded 8000MW!**



CESS is also available to undertake decommissioning, dismantling and relocation of such plants and have extensive experience in this field.

**For further information please contact:**

**Mike Craigie – Managing Director  
Craigie Engineering Sales & Services Ltd  
Energy House, 45 Hamnavoe  
Stromness, Orkney Islands, UK  
KW16 3JQ**

**Tel : +44-7802 916 577**

**e-mail : [mike@cess.co.uk](mailto:mike@cess.co.uk)**

**Website : [www.cess.co.uk](http://www.cess.co.uk)**