



CESS Valuation Experience

Head-quartered in Stromness in the Orkney Islands, Craigie Engineering Sales & Services Ltd. (CESS), was originally formed in 1990 and has rapidly developed as one of the World's leading valuation & marketing agents for power plant and related equipment. CESS's client base covers many companies in the Industrial, Utility/IPP, Oil-field, Process and Petrochemical Sectors.

CESS can provide a prompt and effective response on asset disposal and surplus equipment evaluation or the valuation of fixed assets for insurance or financing purposes.

In 1995 CESS were requested by **Scottish Power** to provide market valuation on 2 x 75 MW **Ansaldo/Fincantieri** FBC plants which were owned by **ENEL** in **Italy** for potential use in a peat-fired project in **Eire**.

In January 1996 CESS were invited by **Slough Heat & Power** to provide market valuation for their fuel oil treatment plant and CESS were subsequently successful in the sale of this equipment to **Aaron Equipment Ltd**.

In November 1996, CESS supported **John Foord (Singapore)** and **Hickman & Shearer** in the valuation of the generating assets of **EGAT** in **Thailand**.

In July 1997, CESS were again asked by **Scottish Power** to provide market valuations for the surplus 12 MW **Mirrlees** diesel generator CHP plant and a 15 MW **AEG Kanis** back pressure steam turbine generator within the UML (**Lever Brothers**) Power Station on Merseyside.

In April 1998 CESS carried out a valuation and inspection report on **SECWA's** 72 MW Redbank diesel power station at Port Headland in **Australia** on behalf of **Archer-Edwards Corporation**.

In June 1998 CESS were contracted by **Sabah Shipyards** in **Malaysia** to carry out an inspection and market valuation of their 5 power barges (totaling 420 MW) which were available as a result of cancelled projects in **Philippines** (60 Hz) & **Pakistan** (50 Hz).

The available equipment consisted of one **Westinghouse W501D5** barge-mounted gas turbine generator and two other barges with two **Westinghouse W251B11** gas turbine generator sets.

In August 1998 CESS were contracted by the **Tennessee Valley Authority (TVA)** to provide market valuations on TVA's surplus plant inventory and recommendations for the subsequent marketing and disposal strategy.

In December 1998 **TVA** awarded a further 3 year **Direct Marketing Contract** to CESS for all their surplus and unused equipment.

Later in December 1998 CESS were asked by **South African Pulp & Paper Industries (SAPPI)** to provide a market valuation report on a 6 MW **Siemens** steam turbine generator set which had become surplus to their requirements.

In June 1999, CESS were awarded a Valuation & Exclusive Marketing Contract by **Midlands Power International** for the market valuation and disposal of their 15 MW **Crossley Pielstick** diesel power plant at Hereford.

In August 1999, CESS were successful in the valuation, marketing and subsequent sale of a **750 kW (Caterpillar G3512) gas-engine CHP** plant for **Esso Petroleum** at Abingdon in UK (**Exxon Corp**).

In September 1999 CESS were contracted by **Carrack Ltd** to provide a site inspection and valuation report on a trailer-mounted **Ruston TB5000 Gas Turbine Generator Set** which was being sold by **Scottish & Southern Energy**.

In October 1999 CESS were invited by **PT GE Finance** in Indonesia to perform a market valuation of two 4.3 MW **Solar Centaur 5901** gas turbine generator sets.

GE Finance then awarded CESS the exclusive marketing contract for these machines, and as a direct result of those efforts the 2 Centaurs were subsequently sold to **Petronas** in **Malaysia**.

In November 1999, CESS were awarded a contract by **Maritrans Shipping** (USA) to perform a market evaluation of their two **GE Frame 3** and **Ruston TD4000** gas turbine generator sets which are presently powering their tanker fleet.

During March 2000 year, CESS were contracted by **PSEG Global Limited** to perform inspection and market valuation on a 10 MW **Siemens/Babcock** unused wood waste fired power plant in Sabah, **Malaysia**.

In May CESS were contracted by **ENSCO** to evaluate their 4 x 6.8 MW **Wartsila NSD 18V32** diesels.

In June 2000 CESS prepared a market evaluation of a **4.8 MW Allison 501 KB7** cogen plant for **Heinz Foods** at their Harlesden Plant in London and subsequently marketed the plant on an exclusive basis with their shareholders at Asset Investment Recovery (AIR).

In July 2000, CESS secured a marketing and valuation contract with **Simsekler Ship Repair** in Turkey for the evaluation and marketing of **2 x Fiat TG16** gas turbine generators.

During August 2000, CESS were contracted to provide market valuations for **Contact Energy** in **New Zealand** on their various **Pratt & Whitney FT4-3C** and **Olympus** Twin-pac units.

In September 2000, CESS were appointed by **Rolls Royce Capital Ltd** to prepare a **Secondary Market Report on aero-derivative gas turbine generators** with particular reference to historical and projected future resale values of gas turbine generator sets in the 15 - 50 MW power range.

CESS also prepared a review of the power business of ABB, Enron and GE in Asia on behalf of **Nomura Securities (Japan)**.

CESS was then contracted to **Rubu Biladi** to perform a site inspection and market evaluation of 2 x **Allison 501KB** gas turbines in **Saudi Arabia**.

CESS secured a contract in October 2000 with **Rolls Royce Power Ventures** to provide inspection report and resale market valuation on **2 x Stork Wartsila 9TM620** diesel engines and ancillaries.

In November 2000, CESS was again commissioned by **Rolls Royce Capital Ltd** to prepare a **Market / Asset Valuation Report** on all stock aero-derivative gas turbines (**Avons, RB211's, Trents, & 501's**).

Later that month, CESS was contracted by **Tampere Power Utility** in Finland to carry out an evaluation of their Frame 5 gas turbine and have since been awarded a contract to market this machine.

CESS also secured a contract in November 2000 with **Jacobsens-Elektro AS** of Norway for the sourcing, inspection, valuation and securing the option to purchase various gas turbine and diesel options for projects in Europe & Africa.

In December 2000 CESS were contracted by **Enron Engineering & Construction** to perform independent inspection and evaluation of their 4 x 3000 Tonne fuel barges in Cebu, **Philippines**.

In January 2001, CESS entered into a Joint Venture agreement with **Penshaws Ltd** in **New Zealand** and was subsequently awarded a **Valuation and 2 year Exclusive Marketing Agreement** for the unused **250 MW Marsden B Power Station**

Later in January, CESS was awarded a contract with **Merlin Production Inc** of Houston to prepare a detailed study of the **World's Power Barge Market**. This study also involved the preparation of a database listing all the World's power barges.

In May 2001, CESS were contracted to inspect and prepare a preliminary market evaluation report on the 2000 MW Inverkip Power Plant for **Scottish Power** and in July 2001 CESS were appointed by **Arthur Andersen** International (as the liquidators of **Westmont / Techno Asia Group**) to perform inspections and market valuation reports on the Victoria 8 Power Barge (W251 **Kenya**) and Victoria One (W501 **Dominican Republic**).

CESS was then contracted by **Renova AB** in Sweden to perform the inspection, valuation and marketing of their 14 MW AEG steam turbine in waste-to-energy plant. Future Residual value estimates for two **Siemens V94.2** gas turbine units were also prepared for **Sembawang Corporation** in **Australia**.

In August 2001, CESS were contracted again by Arthur Andersen to provide an independent review of the contract documentation and Fuel Supply Agreement (FSA) for the 100 MW IPTL (Independent Power Tanzania Limited) project near Dar es Salaam in **Tanzania**.

During September 2001, CESS were asked by Arthur Andersen to provide valuation reports, with equivalent unit charter/leasing rates, for the fuel barges Sky One (**Dominican Republic**) and Sky Two (**Kenya**).

In October 2001, CESS secured a contract with **Reliance Industries** in India for the inspection, valuation and marketing of a 25 MW **Siemens** steam turbine and in November CESS supported **Sinclair Knight Merz** in **New Zealand** in the valuation of a 17 MW **Alstom** steam turbine generator set.

In Dec 2001, CESS were approached by **PriceWaterhouse Coopers** to prepare estimated resale values for an unused 7 MW wood-waste/biomass power station in **Malaysia**, which their client had decided not to install and planned to offer for ex-stock delivery early in the New Year.

In May 2001, CESS was also commissioned to perform an independent inspection and appraisal of **2 x 4.5 MW Wartsila 18V28SG** gas engines and ancillary equipment within a recently commissioned power plant in UK.

In July 2002, CESS completed the technical inspection, appraisal, and due diligence on a 300 MW Combined Cycle Gas Turbine Plant (CCGT) in **China** for **Peak Pacific Investments**, which comprised one **ABB GT13** and **2 x GE Frame 6001B** units.

During Sept 2002, CESS carried out a market appraisal for **Rolls Royce Power Ventures** on 2 x unused **Siemens-Westinghouse W501D5A** units in **USA**. Detailed technical due diligence was also completed on the bottoming cycle equipment for 2 x 70 MW **Aalborg/Zurn HRSG's & Mitsubishi steam turbines** for CCGT plants in Bangladesh (**Westmont Bangladesh**) and in Bali, **Indonesia** (for **PT Indonesia Power**, previously **PLN**).

CESS also carried out site inspection & appraisals on 29 x 800 kW **Cummins** containerized diesels generator sets in **Tanzania** for **Rolls Royce**.

In January 2003, CESS were contracted to **Australasian Asset Resource Management - AARM** (subsidiary of **GATX Capital** in USA), to provide site inspection and market appraisal on 3 x 17 MW **Alstom** steam turbine generator sets in Auckland, **New Zealand**

In April 2003 CESS provided an independent assessment of a **GE Frame 9FA** gas turbine rotor (ex **Turkey**) for **Miller International (Loss Adjusters)**.

During May of 2003, CESS carried out inspection and valuation contracts for **Ernst & Young** on the Victoria 5 and 7 power barges in Labuan, **Malaysia**.

CESS also then carried out the inspection and appraisal (for the OEM), on a group of 30+ MW of **Deutz** packaged generator sets which had been returned from **Kenya**.

CESS arranged and attended the on-site appraisal of (2) x 1.25 MW Steam Turbines with related Boilers, etc. on behalf of International Process Plants & Equipment. CESS also provided dismantling, crating and shipping costs for client in **Sri Lanka**.

In August 2003, CESS were commissioned to carry out an independent on-site inspection and appraisal of a **GE Frame 6101FA** (123 MW) CCGT Plant at Cardenden in Fife, Scotland on behalf of Ernst & Young and were appointed as exclusive Marketing Agents for this plant, which was then sold by CESS to **Scottish & Southern Energy**.

During November 2003, CESS carried out inspection and valuation of **7 x Ruston TB5000** (2.7 MW) mobile gas turbine sets for **Assam State Electricity Board** in **India**.

In December 2003 CESS were commissioned by **Bahrain Electricity and Supply Transmission** to carry out the site inspection and valuation of a **GE Frame 5 Gas Turbine Generator**.

During August 2004, CESS carried out the valuation of **(3) x 7MW EGT Tornado** cogen plant for **Petroplus** in UK and in September 2004 completed a desktop study on replacement value of a Solar Mars Gas Turbine gen set in **Nigeria** for **Rolls Royce Power Ventures**.

In October 2004, were asked to carry out an updated inspection and valuation on **Victoria One power barge** in Dominican Republic and the Dura 3 and Dura 4 Power Barges in the **Philippines** for leading finance institution.

Later that month, CESS was commissioned by **JP Morgan** to undertake a technical study and commercial due diligence on uncompleted power plant and a Soda Ash Processing Plant in **India**

During Nov 2004, CESS have been involved in the valuation of another 5 gas turbines from cancelled projects and a zero-houred Frame 5N for **Bahrain** Electricity Supply & Transmission (BEST)

In Dec 2004 CESS completed inspection and valuation of 13 steam turbines for CSR Sugar in **Australia**.

In May 2005, CESS completed valuation and marketing of a zero-houred 10 MW **Siemens** steam turbine in **Poland**

CESS was also commissioned in May by **Pacifico** in Malaysia to inspect and appraise the **Victoria 8 power barge** (48 MW) in Kenya and in July CESS were commissioned by **Talbott's (UK) Ltd** to appraise two "**Bellis and Morcom**" and "**Allen**" steam engines.

In July **CESS** completed inspection and appraisal of a 12 MW gas engine plant in Nigeria for **Negriz Group** and in August was also involved in appraisal of a **9 MW Siemens** steam turbine in Thailand.

In Nov 2005 CESS was asked by **Epcor** to carry out inspection and valuation of their 4 x 165 MW power Plant at in Edmonton, **Canada**. In Nov 2005 CESS were again asked to perform desktop appraisal of the 2 x 55 MW power barges in **Manila**.

In November 2005, CESS was asked to perform site appraisal inspection of 3 x 180 **MW 501F** gas turbines in **Tennessee**. These units were sold to TVA in Nov 2006.

In March 2006, CESS was commissioned by Tasiast Mauritanie Ltd, to perform an inspection and appraisal of 2 x 7MW MAN diesels in **Mauritania**.

In June 2006 CESS completed appraisal of a 25 MW Caterpillar Diesel plant in **Cambodia** and also a 60 MW De Laval HFO diesel plant in **Philippines**:

In July 2006, CESS were involved in the inspection and appraisal of 6 x 1.5 MW Perkins containerized units for a project in **Sao Tome**.

In August 2006, CESS inspected and appraised 5 x 1500 kW **MWM Deutz** gen sets in **Saudi Arabia** for Al Suwaiket Trading and Contracting Company

In September 2006, CESS carried out a site inspection and market appraisal of two 78 MW **ABB GT13D** gas turbines in **China**.

In October 2006, CESS was contracted to perform an appraisal of a 6 MW 60 Hz Colt Pielstick diesel in New York.

In Dec 2006, CESS was successful in the sourcing and valuation of a 96 MW Siemens steam turbine for IPC in Bolivia and also inspected and appraised 3 x 20-38 MW **Siemens** steam turbines for **BASF** Refinery in **Belgium**.

In February 2007, CESS carried out an inspection and appraisal of two **Typhoon** gas turbines in UK.

In Feb 2007 CESS was also contracted by Rolls Royce Power Ventures to provide estimated resale values on 3 X 5.5 MW **Allen** diesels in Mali.

In March 2007 CESS did a desktop appraisal for **Standard Bank** (RSA) on 4 x 125 MW **Westinghouse 701** gas turbines which they had inspected in 2006.

In 2007 CESS also carried out various site inspections and valuations on Power Barges in South America, Africa and the Far East for undisclosed clients.

In August 2007, CESS was commissioned to inspect and appraise 3 x 3.5 MW HFO Cat units in **Thailand** and 6 x 4 MW Wartsila units in **India**.

CESS also carried out a technical Due Diligence and Appraisal on 100 MW CCGT plant in the **USA**.

In November 2007, CESS were involved in the inspection, valuation and sale of 3 x Frame 5 gas turbines in **China** and these were subsequently sold to a client in **Indonesia**.

In Dec 2007, CESS were contracted to provide a market appraisal of 2 x 150 MVA alternators at Ballylumford Power Station in **Ireland**, and also performed Due Diligence on 60 MVA alternator test for a **Rolls Royce Trent** to be shipped to Lowell plant in **USA**.

In January 2008 CESS inspected and carried out inspection of two 42 MW steam turbine and a Frame 5 Gas Turbine in **Saudi**.

In April 2008, CESS inspected and appraised a **Frame 6B** for project in **Bangladesh** and **11 x Ruston TB5000** gas turbines in Middle East.

In May 2008 CESS completed a desktop appraisal for finance package on an **Allison 501KB7** CHP plant for Elyo Industrial in UK.

In August 2008 CESS was contracted to provide market assessment of 4 x GE Frame 7EA and 6 x **GE Frame 7B/E** units for Negrin in Nigeria.

In September 2008 CESS worked on DESKTOP future appraisal of 150 MW **Edenderry** peat-fired Power Plant in Eire.

In October 2008, CESS was contracted to **Bank of America** to carry out market appraisal on 3 x **GE Frame 7FA** (170 MW) units in US plus 244 MW GE steam Turbine.

CESS also carried out another re-inspection on Dynami 2 (Victoria 5) Power Barge in **Malaysia**

In December CESS was contracted to owners to inspect and appraise the 10.5 MW **Arbre Biomass CCGT Power Plant**.

CESS also completed a technical assessment of power requirements for **Crown Cork** in Cambodia.

In Sept 2009 CESS completed another inspection and appraisal on **4 x Fiat TG50 125 MW Gas Turbines** for **Standard Bank in South Africa**

In May 2009, CESS was contracted to **Sembcorp Ltd** in UK to carry out inspection and due diligence on up to **100 MW of Steam Turbine/s** power for their expansion on the Wilton Site in UK.

In May 09 we completed assessment on **3 x 117 MW** steam plants at Ballylumford in **N Ireland** for **Premier Power**.

CESS also recently carried out a desktop appraisal of **2 x GE LM2500** units in Ras Al Khaima for **Independent Power**

In September 2009 CESS inspected and valued **4 x W701D5 (125 MW) Gas Turbines** (which have been zero-houred) for **Standard Bank of South Africa**

In Nov 09 CESS were asked to give budgetary market appraisal on **3 x Pratt & Whitney FT8 units**. In January 2010 we carried out summary appraisal on 13 MW CCGT Plant in UK for **PB Power** and in May we completed appraisal on two x **Tornado CCGT** plant in UK.

In August 2010 we again inspected and appraised **the 4 x W701 Gas Turbines** in Italy and in Sept 2010 we inspected and appraised **20 x GE Frame 9171E** units which had been destined for Kuwait.

In Nov 2010 we inspected and appraised two **Jenbacher** gas engines for Independent Power in UK, and in Dec 2010 CESS was commissioned to inspect and appraise some 500MW of steam turbines in **Puerto Rico**.

In Jan 2011 CESS were again asked to undertake an e-Valuation on **3 x Pratt & Whitney FT8** units and in April 2011 we were invited by **Contact Energy** to complete a market valuation with an idea of future values in 4 year's time.

In August 2011, we inspected and appraised a **40MW GE Frame 6B** gas turbine in Scandinavia.

In Sept 2011 we witnessed test run on an **ABB GT13E** unit in partial repowering application in the **Netherlands**.

CESS Project Experience

		Valuation	Marketing	Sourcing	Sale
Gas Turbines	Number	470	235	169	79
	Capacity (MW)	26148	12330	6460	2645
Steam Turbines	Number	198	134	59	37
	Capacity (MW)	21881	12528.5	8646	1362
Diesel Engines	Number	537	279	203	102
	Capacity (MW)	2420.5	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

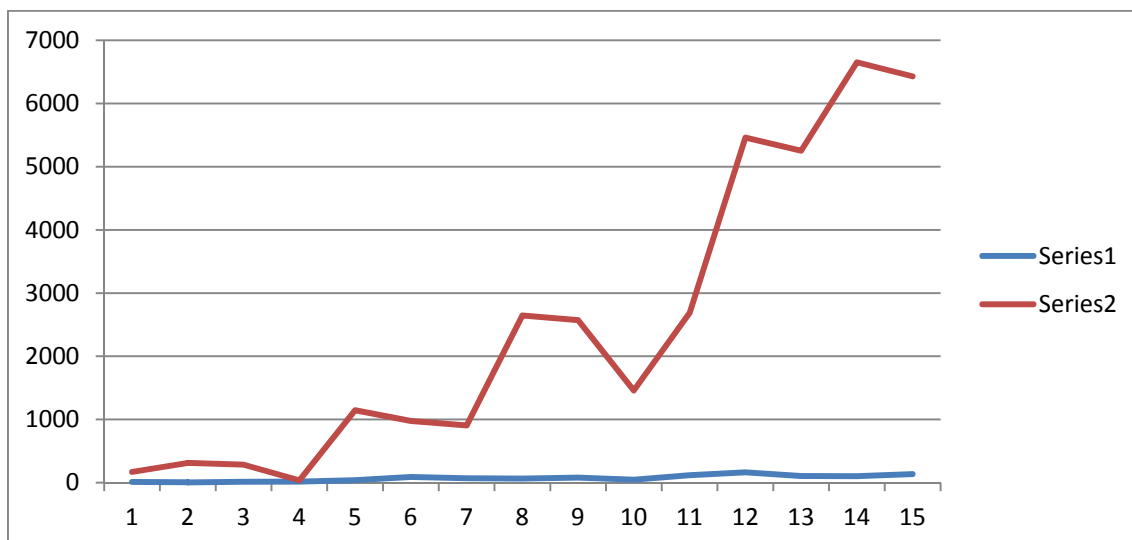
CESS History:

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 **60,521MW** of valuation experience in the past 15 years and these valuations (> **US\$3,341M**) have included:

- 470 gas turbines (including Allison, Rolls Royce, GE, Solar, Pratt & Whitney, Fiat, Ruston, GEC Alstom, Westinghouse, Mitsubishi, Siemens & ABB/Alstom)
- 198 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)
- 537 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)

Valuations: MW



Major Client list:

- Tennessee Valley Authority
- JP Morgan Securities (Hong Kong)
- BASF Refinery (Belgium)
- PSEG Global Limited (London, UK)
- Scottish Hydro Electric plc (UK)
- Rolls Royce Power Ventures Ltd UK)
- BC Hydro (Canada)
- Exxon Corporation (Esso UK)
- Maritrans Tankers (USA)
- Allegheny Energy (USA)
- Contact Energy Ltd (New Zealand)
- PriceWaterhouse Coopers (Malaysia)
- BPB Paperboard (UK)
- AECI Operations Services (RSA)
- Smit International Ltd (Scotland)
- Peak Pacific Investments (China)
- Miller International Loss Adjusters (UK)
- Petroplus (Netherlands/UK)
- JP Morgan Chase (Hong Kong/UK)
- EPCOR (Canada)
- Tri Energy (Thailand)
- Tasiast Mauritanie Ltd (Mauritania)
- China Light & Power Ltd (Hong Kong)
- Carron Engineering & Const'n (UK)
- Sree Rayalaseema Alkalies (India)
- Synergy Capital (Pakistan)
- Morgan Stanley (USA)
- Hermes (Netherlands)
- Bank of America Leasing (USA)
- Nucor Corp (USA)
- Standard Bank (South Africa)
- GDF/Suez (UK)
- GE Finance (Indonesia)
- Nomura Research Institute (Japan)
- SAPPI (South Africa)
- Stewart & Stevenson Int' Inc. (USA)
- International Power (UK)
- Slough Heat & Power (UK)
- Sabah Shipyards (Malaysia)
- Jacobsens-Elektro A/S (Norway)
- Midlands Power International (UK)
- Reliance Industries (India)
- Pentex Oil & Gas (UK)
- ENSCO (Louisiana, USA)
- Trust Power Ltd (New Zealand)
- Renova AB (Sweden)
- Bahrain Electricity ST (Bahrain)
- GATX Capital / AARM (Australia)
- Ernst & Young (Malaysia & UK)
- Negriz Group (Nigeria)
- Metsallito (Finland)
- Sincen GDF/Suez (UK)
- Jaguar Energy (Belize)
- Genesis Power (Sao Tome)
- Tata Chemicals (India)
- Masood John Brown (India)
- Blue Crest Capital (UK)
- Sita Limited (UK)
- Industry & Energy Assoc' LLC (USA)
- Green Frog Fuel (UK)
- Elyo Facilities (UK)
- Crown Cork (Cambodia)
- Premier Power (UK)
- Parsons Brinkerhoff Power (UK)

Mike Craigie has also written two online articles for Energy Central:

http://www.energypulse.net/centers/article/article_display.cfm?a_id=1466

Article Viewed 5350 Times

http://www.energypulse.net/centers/article/article_display.cfm?a_id=654

Article Viewed 5714 Times

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Craigie Engineering Sales & Services Ltd (CESS) is based in Stromness in the Orkney Islands, which is just off the North coast of Scotland.

From these headquarters we use IT and data transfer systems to handle upwards of 200 enquiries per month for all types of power generation equipment including gas & steam turbines, diesel engines and related ancillary equipment, right through to complete process and petrochemical plants etc. The origin or final destination of these projects can be anywhere from Alaska to Zimbabwe and CESS has already processed over 18,400 separate enquiries from 203 countries.

Facilities and equipment include the latest e-mail, Internet, file transfer software, colour scanning, imaging and printing facilities all of which guarantee a fast and professional response to enquiries from clients.

CESS also offer a “turnkey” service on surplus plant which ranges from the preliminary appraisal/evaluation and subsequent marketing, through to handling the sale, decommissioning/dismantling, preservation, packing, shipping, re-erection and commissioning.