

Catalogue of Energy Industry Classifications 2009

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Douglas –
Westwood



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Contents

1	Introduction.....	4
1.1	Introduction.....	5
1.2	Aims and Objectives	5
1.3	Framework of Use	5
1.4	Implementation	6
1.5	Changes made	6
1.6	Sector changes.....	6
1.7	Classification changes.....	6
1.8	Glossary	7
1.9	SIC Codes.....	7
2	The Classifications.....	8
2.1	Offshore Wind.....	9
2.2	All Sectors.....	11
3	Appendices	13
3.1	Glossary	14
3.2	Sector Analysis.....	20
3.3	SIC Code Comparison.....	25

1 Introduction

1 Introduction

1.1 Introduction

In June 2005, the Catalogue of Energy Industry Classifications was published by EEEGR. This study was undertaken by Douglas-Westwood Limited in December of 2004 and aimed to establish a new way of classifying companies' activities within the energy sector. This work was commissioned to provide a greater level of detail, and in more appropriate terms, than the UK Standard Industry Classification of Economic Activities (UK SIC (92)).

The outputs from DWL's work were used in studies within the region, for example on the Scroby Sands supply chain study and the POWER supply chain study (both the EoE regional study, and the subsequent transnational study).

In 2009, as part of POWER cluster, it was judged that the Catalogue of Energy Industry Classifications should be reviewed and updated where necessary, if benefits in doing this can be found and proven. Reviewing the classifications will include focus on ensuring the offshore wind sector, which has developed significantly in the last four years, is sufficiently represented. The classification work should consider future developments within the sector and be capable of supporting these.

This update was produced in May 2009.

1.2 Aims and Objectives

At present, the UK Standard Industry Classification of Economic Activities (UK SIC(92)), provides a broad coverage of supply chain activity, however, in seeking to capture the full range of company capabilities serving each and every industry it lacks the level of detail to fully reflect the specific competencies of the supply chain to the energy industry.

In order to further develop this system, it was thought necessary to code the companies according to their activities, with for example 'project management' companies servicing the 'Oil & Gas' or 'Wind' industries being displayed as such. However, for this to happen there is a need to produce a set of keywords to classify activities of companies in the energy supply chain in a pragmatic fashion. This could begin in oil & gas and extend through to renewables and nuclear related activities.

The original study was commissioned by the East of England Energy Group (EEEGR) and completed by Douglas-Westwood Limited (DWL) in December 2004 prior to a period of further testing within DWL's ongoing work within the POWER project. The project

required the creation of a "pragmatic" coding system to be applied to all companies identified, or seeking, to be working within the supply chain to the energy industry.

The framework created will act as a means of facilitating the identification of specific capabilities of companies servicing one or more sectors and enable the effective segmentation of the industry through the creation of three independent, relational datasets, structured as a keyword listing. The listings have been based on 136 categories, supplemented by a glossary defining keywords where appropriate.

The three independent relational datasets are;

1. Industry Sectors – Offshore Wind, Oil & Gas, Nuclear, etc
2. Industry Roles – Operator, Service Provider, Support Organisation, etc
3. Industry Classification – Drilling & Wells, Installation & Commissioning, etc

The coding system has been supplemented by suggestions of the key industry metrics that should be recorded within supporting databases to facilitate attempts to perform a consistent and repeatable analysis of the nature and scale of activity within any supply chain to the energy industry.

1.3 Framework of Use

141 categories have been created, comprising 14 Sectors, 10 Roles and 117 Classifications. A listing of categories, glossary of the terms used and example of the system in operation are given within the appendices to this document.

Companies are required to select (or be placed within) the Sector they are servicing (i.e. Offshore Wind), the Role they perform (i.e. Engineering) and the Classification which best describes their activities (i.e. Fabrication & Construction). It is accepted that the majority of companies will require a listing under several categories, varying the Sector, Role and/or Classification as appropriate.

In the instance of a Group of companies, where possible each individual company should be represented within the system (i.e. The Acteon Group – MENCK, Interroom, Claxton Engineering, UWG Limited, 2H Offshore, WellCut and Team Energy Resources).

1 Introduction

1.4 Implementation

The success of such a process, will be highly dependent upon the quality of information available on each company. However, supplementing this preliminary analysis with a degree of interaction with the companies involved is recommended.

Having created the 'pragmatic' system required to work in conjunction with Mapergy, it is vital the technical delivery of this framework continues to facilitate a user friendly system which is both meaningful and manageable for the end user. One key area in achieving this is the Glossary, which should be made readily available to all users of the system at the point of use. In creating such a facility attention has been paid to ensuring each category in other widely used industry classification systems and directories (i.e. FPAL, Pegasus, etc) has been included within one of the keywords given. The potential for any gaps in the system, whereby an element of the supply chain may not be covered, has, to the best of our knowledge been eliminated – however feedback is encouraged should any be identified.

It is not intended that there should be any form of hierarchy between the categories, in that a company may base its entry on either the Sector it serves, the Role it performs or the specific Classification of its activities. However, when a category is chosen this may then limit the choices available in the remaining categories as only certain permutations are appropriate. For instance, if a company were to state it works solely within the Offshore Wind Sector there are only certain Classifications which are appropriate to that specific sector, and only they should be available for selection from the drop down list presented. Similarly if a company initially classifies itself as working within Drilling & Wells it should not then be able to select any Sector other than Oil & Gas.

One further consideration is the development of numerical codes to represent the keywords created, particularly with regard to the use of such a framework as a tool for quantifying the economic value of the industry, or an aspect of the industry. Such a system is widely used, with the codes used within Standard Industry Classifications and FPAL prime examples of applications within the energy industry. The relevance of such a system will be highly dependent on the end user, however, it would be undeniably beneficial to have such a facility available and it is recommended such a capability is developed within the next phase of the system's development. As a starting point the prevailing Standard Industry and Occupational Codes are to be applied to the list of categories created within the catalogue.

1.5 Changes made

The old classification system had 117 categories, comprising 11 Sectors, 10 Roles and 96 Classifications.

After review in May 2009, the updated system features 14 Sectors, 10 Roles, and 117 Classifications.

1.6 Sector changes

New sectors added are microgeneration, carbon capture & storage, and gas storage.

Microgeneration – whilst activities within this sector could be covered using existing sectors it was felt important to separate it. This is because of the differences between companies supplying for example, blades for small scale wind turbines to those supplying commercial scale wind turbines. This will help ensure that any supply chain work undertaken using these classifications gives a more accurate portrayal of the sector makeup.

Carbon capture & storage – the growing interest and expenditure in CCS necessitated adding the sector to the classifications.

Gas storage – there is a developing need for gas storage systems. The UK for example can only store around 4% of its gas needs and the production of gas from the UK continental shelf is in decline.

1.7 Classification changes

Accommodation modules – added to the system, as did not fit clearly into any other category.

Bearings – the former system included transmissions in the bearings category. This has been removed as they are separate items.

Brakes – this has been added to cover braking systems – largely on wind turbines. Brakes did not fit sufficiently well into any existing classification.

CO2 Process Equipment – added due to the inclusion of the carbon capture and Surfacestorage sector.

1 Introduction

Construction Vessels – the old classification system would have included large construction vessels as ‘support vessels’. There is, however, a significant distinction between offshore wind installation vessels and personnel access vessels for example.

Control Systems – the former system included topsides and subsea with control systems. These have been separated into their own classification. This will better allow for wind turbine control systems for example.

Cranes (Fixed) – new classification to cover large crane systems.

Cranes (Mobile) – new classification to cover mobile (e.g. truck mounted) crane systems

Cryogenic Equipment – new classification for specific CCS equipment.

Drilling & Wells – is now drilling and well services.

Energy Storage Systems – new classification for energy storage.

Fluids & Lubricants – new classification for items such as hydraulic fluids, drilling muds, lubricants, etc.

Forging & Casting – new classification for forged/cast equipment such as drive shafts, gangways, gratings, hatches etc.

Geoservices – new classification for production logging and well testing.

Grouting – new classification for grouting, e.g. on wind turbine foundations/transition pieces.

Medical – new classification for medical products and services.

Metal Material – altered classification for supply/distribution of steel, aluminium, copper etc.

Process Equipment – new classification for boilers, tanks, columns etc.

Research and Development – has been removed as it already appears as a Role.

Security – new classification for risk assessment & security provision.

Surface Treatment – new classification to incorporate sand blasting, painting & coatings, surface protection.

Survival Offshore – new classification for offshore survival. Includes lifeboats, life jackets, survival equipment.

Tankers – new classification for oil, LNG, LPG etc. tankers.

Topsides & Deck Structures – topside structures for offshore.

Towers – amended classification. Towers were included previously with wind turbines. This was too general a category and was split to better differentiate the products/services within it.

Wellheads & Xmas Trees – added to classifications to include surface wellheads and xmas trees.

1.8 Glossary

The glossary has been updated to give more clarity to users when determining their classification(s). It can be found in the appendices.

1.9 SIC Codes

The classifications have been compared against the most recent SIC codes. This comparison is in the appendices to this document.

2 The Classifications

2 The Classifications

2.1 Offshore Wind

The applicable classifications for the offshore wind industry are given below.

Sector	Role	Classification
Offshore Wind	Consultant	Accommodation Modules
	Design	Bolting, Fixing & Fasteners
	Engineering	Brakes
	Installation	Buoys & Buoyancy Materials
	Manufacture / Supply	Business Development
	Operator	Cables & Connectors
	Research & Development	Cases & Packaging
	Service	Certification
	Support Organisation	Chemicals, Oils & Paints
	Training & Education	Communication Systems
		Computing & Information Technology
		Construction Vessels
		Control Systems
		Cooling, Heating, Ventilation & Air Conditioning
		Corrosion Protection
		Cranes (Fixed)
		Cranes (Mobile)
		Decommissioning & Abandonment
		Diving & Underwater Services
		Dynamic Positioning Systems
		Electrical Equipment, Materials & Services
		Electronics
		Energy Conservation
		Energy Conversion Processes
		Environmental Assessment & Monitoring
		Fabrication & Construction
		Feasibility / Front End Studies
		Fluids & Lubricants
		Forging & Casting
		Foundations & Piles
		Freight, Logistics & Transportation
		Gears & Gearboxes
		Generators
		Grid Interface / Substations
		Grouting
		Hazardous Area Equipment & Services
		Heaters, Heat Exchangers, Furnaces, Boilers etc.
		Hydraulics & Pneumatics
		Inspection & Testing
		Installation & Commissioning
		Instrumentation
		Insulation
		Integrated Services
		Land & Premises
		Legal
		Legislation & Regulations
		Local Authority
		Machine Shops
		Maintenance, Modification & Operation
		Market Research
		Marketing
		Material & Product Handling
		Media
		Medical
		Metal Material

2 The Classifications

Sector	Role	Classification
		Navigation Aids
		Networking & Events
		Non-Metal Material
		Patent, Trademark & Copyright
		Personnel
		Ports & Supply Bases
		Project Management
		Propulsion Systems
		Publications & Technical Manuals
		Ropes
		Rotor Blades
		ROVs
		Safety
		Scour Protection
		Seals & Gaskets
		Security
		Signs
		Supply Chain Management
		Support Vessels
		Surface Treatment
		Survey & Positioning
		Survival Offshore
		Technology Services
		Topside/Deck Structures
		Towers
		Trade Association
		Training
		Valves & Accessories
		Welding
		Wind Turbines
		Workshop & Hand Tools

2 The Classifications

2.2 All Sectors

The full classifications for the energy industry are given below.

Sector	Role	Classification
Bio Fuels	Consultant	Academic Institution
Biomass	Design	Accommodation Modules
Geothermal	Engineering	Accountancy, Financial, Insurance & Tax
Hydro	Installation	Anchors & Moorings
Hydrogen / Fuel Cell	Manufacture / Supply	Architectural / Building Materials
Microgeneration	Operator	Bearings
Nuclear	Research & Development	Bio Feedstock
Offshore Wind	Service	Bolting, Fixing & Fasteners
Oil & Gas	Support Organisation	Brakes
Onshore Wind	Training & Education	Buoys & Buoyancy Materials
Solar PV		Business Development
Wave & Tidal		Cables & Connectors
Carbon Capture & Storage		Cases & Packaging
Gas Storage		Certification
		Chemicals, Oils & Paints
		CO2 Process Equipment
		Communication Systems
		Compressors
		Computing & Information Technology
		Construction Vessels
		Control Systems
		Cooling, Heating, Ventilation & Air Conditioning
		Corrosion Protection
		Cranes (Fixed)
		Cranes (Mobile)
		Cryogenic Equipment
		Decommissioning & Abandonment
		Diving & Underwater Services
		Drilling & Wells Services
		Dynamic Positioning Systems
		Electrical Equipment, Materials & Services
		Electronics
		Energy Conservation
		Energy Conversion Processes
		Energy Storage Systems
		Engines
		Environmental Assessment & Monitoring
		Exploration & Production
		Explosives
		Fabrication & Construction
		Feasibility / Front End Studies
		Fluids & Lubricants
		Forging & Casting
		Foundations & Piles
		Freight, Logistics & Transportation
		Gas Turbines
		Gears & Gearboxes
		Generators
		Geoservices
		Grid Interface / Substations
		Grouting
		Hazardous Area Equipment & Services
		Heaters, Heat Exchangers, Furnaces, Boilers etc.
		Hoses & Fittings
		Hydraulics & Pneumatics
		Hydroelectric Turbines
		Inspection & Testing

2 The Classifications

Sector	Role	Classification
		Installation & Commissioning
		Instrumentation
		Insulation
		Integrated Services
		International Trade
		Land & Premises
		Legal
		Legislation & Regulations
		Local Authority
		Machine Shops
		Maintenance, Modification & Operation
		Market Research
		Marketing
		Material & Product Handling
		Media
		Medical
		Metal Materials
		Navigation Aids
		Networking & Events
		Non-Metal Material
		Patent, Trademark & Copyright
		Personnel
		Photovoltaic (PV) Systems & Supplies
		Pipes, Pipelines & Risers
		Ports & Supply Bases
		Process Control
		Process Equipment
		Project Management
		Propulsion Systems
		Publications & Technical Manuals
		Pumps & Accessories
		Reservoir Engineering
		Ropes
		Rotor Blades
		ROVs
		Safety
		Scour Protection
		Seals & Gaskets
		Security
		Seismic
		Signs
		Subsea Production & Control
		Supply Chain Management
		Support Vessels
		Surface Treatment
		Survey & Positioning
		Survival Offshore
		Tankers
		Technology Services
		Topside/Deck Structures
		Towers
		Trade Association
		Training
		Umbilicals
		Valves & Accessories
		Waste Management
		Welding
		Wellheads & Xmas Trees
		Wind Turbines
		Workshop & Hand Tools

3 Appendices

3 Appendices

3.1 Glossary

Sector	Definition
Bio Fuels	Fuels produced from plant and animal sources
Biomass	Any plant-derived organic matter available on a renewable basis, including; dedicated energy crops & trees, agricultural food & feed crops, agricultural crop wastes & residues, wood wastes & residues, aquatic plants and animal wastes
Geothermal	Water or steam extracted from geothermal reservoirs used for geothermal heat pumps, water heating or electricity generation. (1) Binary-Cycle Plant: A geothermal electricity generating plant employing a closed-loop heat exchange system in which the heat of the geothermal fluid (the "primary fluid") is transferred to a lower-boiling-point fluid (the "secondary" or "working" fluid), which is thereby vaporized and used to drive a turbine/generator set. (2) Flash-Steam Plant: Fluid is sprayed into a tank held at a much lower pressure than the fluid, causing some of the fluid to rapidly vaporize, or "flash." The vapor then drives a turbine, which drives a generator. If any liquid remains in the tank, it can be flashed again in a second tank to extract even more energy. (3) Dry-Steam Plant: Use hydrothermal fluids that are primarily steam. The steam goes directly to a turbine, which drives a generator that produces electricity. The steam eliminates the need to burn fossil fuels to run the turbine. (Also eliminating the need to transport and store fuels) This is the oldest type of geothermal power plant.
Hydro	Use of flowing water to produce electrical energy both on a small scale (river) and large scale (dam)
Hydrogen / Fuel Cell	A fuel cell is an electrochemical conversion device. It produces electricity from fuel (on the anode side) and an oxidant (on the cathode side), which react in the presence of an electrolyte. The reactants flow into the cell, and the reaction products flow out of it, while the electrolyte remains within it. Fuel cells can operate virtually continuously as long as the necessary flows are maintained.
Nuclear	Use energy released in the fission or fusion of atomic nuclei
Mircogeneration	Is the generation of zero or low-carbon heat and power by individuals, small businesses and communities to meet their own needs. Microgeneration technologies include small scale wind turbines, hydroelectric plants, photovoltaic solar systems, ground source heat pumps, and Micro Combined Heat and Power (MicroCHP) installations.
Offshore Wind	The conversion of kinetic energy present in wind motion to mechanical energy for driving electric power generators through offshore infrastructure
Oil & Gas	The exploration and production of global oil & gas reserves
Onshore Wind	The conversion of kinetic energy present in wind motion to mechanical energy for driving pumps, mills and electric power generators through onshore infrastructure
Solar PV	Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors
Wave & Tidal	Wave - Energy produced from the motion of waves generated by the motion of wind across water. Tidal - Tidal and current stream energy systems are designed to use the natural ebb and flow of tides & currents to power turbines
Carbon Capture & Storage (CCS)	A geo-engineering technique for scrubbing CO ₂ from ambient air and storing it away from the atmosphere. Natural storage facilities such as the oil & gas fields of the North Sea are seen as the best natural option and can be used in conjunction with a technique called enhanced oil recovery
Gas Storage	There are a number of methods for storing gas: (1) Distribution System - The amount of gas in the network of distribution pipelines can be varied slightly to help meet day-to-day changes in demand by adjusting the pressure in the pipes. Large above ground storage tanks also store gas at low pressure to help demand variations. (2) Liquefied Natural Gas (LNG) – At certain points around the NTS, natural gas is cooled and compressed to turn it into a liquid which is stored in large above ground tanks. These tanks must be kept cool all the time. The LNG can be turned back into gas by warming it up and is used to help meet the peak demands in winter. LNG can also be imported by ship and stored briefly at the port while it is re-gasified and put in the NTS. (3) Depleted Fields - When old gas and oil fields reach the end of their lives, some are suitable for use as gas storage to help fulfill changes in demand. (4) Salt caverns - Purpose built underground salt caverns allow large quantities of gas to be stored. These facilities are very flexible as gas can be quickly and easily injected and removed from the caverns.

3 Appendices

Role	Definition
Consultant	Offer expert advice on a professional basis
Design	Formulation of ideas into a plan
Engineering	Concerned with the design, building, and use of engines, machines, and structures
Installation	Install equipment or structures
Manufacture / Supply	Manufacturing or supply of a material or product
Operator	Develop and produce from an energy source
Research & Development	Research is discovering, interpreting, and then development of methods and systems
Service	Service provider
Support Organisation	A public organisation supporting either a community and/or industry
Training & Education	Develop the skills and/or knowledge of individuals
Classification	Includes
Academic Institution	Schools, Colleges & Universities offering training & educational courses and research facilities & expertise
Accommodation Modules	Accommodation Complex
Accountancy, Financial, Insurance & Tax	Providers of; Banking, Security broking, Fund management, Credit management, Financial risk analysis, Auditing, Tax compliance, Financial support, Grants and Intermediary services
Anchors & Moorings	Anchors, Mooring methods and associated equipment: Mooring systems - Floating, Single Point, Spread etc
Architectural / Building Materials	Cement, Sand aggregates, Sanitary equipment, Textiles, etc
Bearings	Bearing componets
Bio Feedstock	Includes all feedstocks used in production of Bio fuels and energy from Biomass
Bolting, Fixing & Fasteners	Bolts, Fixtures, fittings and fastening
Brakes	Mechanical braking, Aerodynamic braking system
Buoys & Buoyancy Materials	Sea mark, lifebuoy, submarine DAN buoys (Navigational), Sonobuoys, Surface Marker Buoys, Decompression Buoys, weather buoys, spar buoys etc
Business Development	Business advice & support, Information services, Management services, Process management systems, Strategic planning, etc
Cables & Connectors	Electrical cables, Connectors, Overhead conductors, Stranded aluminum communication cores, Cable racks & trays, Instrument & communication cables, Superconducting wire, Cable laying & burial, export, inter-array
Cases & Packaging	Enclosing or protecting products for distribution, storage, sale, and use. Also the process of design, evaluation, and production of packages and cases.
Certification	Certification of; Cranes & lifting appliances, Machinery, Personnel, Pressurised equipment, Welders, Environmental management systems, Software & electronics, Information security management systems, Pressure vessels, Quality management systems and Safety management systems,
Chemicals, Oils & Paints	Primers, Coatings, Paints, Fuels, Lubricants, Mud, Additives, Abrasives, Polishes, Compounds, Adhesives, Inhibitors, Catalysts and Completion fluids,
CO2 Process Equipment	Membrane Systems & filters, reformers, scrubbers, gasification, solvent absorbers etc
Communication Systems	Telecommunications, Radio, Control centre communication systems, Portable satellite communications systems, Audio/Video equipment and accessories
Compressors	Centrifugal, Reciprocating, Screw/Rotary, Jet & Axial Compressors, CO2 compressors
Computing & Information Technology	Hardware, Software, Databases, CAD & CAP Services, Computer based modeling, Simulation programmes & Data and message transmitting services, Data management services, Web based services, Graphic design and Information management

3 Appendices

Classification	Includes
Construction Vessels	Cranes, Crane barges, Heavy lift vessels, cable laying vessels
Control Systems	Remote control & monitoring systems, SCADA, etc
Cooling, Heating, Ventilation & Air Conditioning	Air fans, Dampers, Ducting, Coalescers, Heating coils, Humidifiers, Dryers, Coolers, Condensers and Refrigeration Units,
Corrosion Protection	Corrosion monitoring systems
Cranes (Fixed)	Tower, Self erecting, Telescopic, Hammerhead, Level luffing, Gantry, Deck, Overhead, Jib, Bulk Handling, Loader and Stacker.
Cranes (Mobile)	Truck mounted, Sidelift, Rough terrain, Crawler, Railroad, Floating and Aerial
Cryogenic Equipment	Valves, actuators, pipework, storage tanks, loading/unloading/transfer systems etc
Decommissioning & Abandonment	Project managing & engineering, Heavy lift & cargo vessel mobilisation, Well plugging and abandonment, Platform removal preparation, Pipeline abandonment, Conductor removal, Platform removal, Site clearance & Onshore disposal
Diving & Underwater Services	Personal and vessel diving equipment (including; Helmets, Suits, Knives, Lead belts, Bells, Compression chambers, Gas mix batteries & Turrets) and associated underwater services
Drilling & Wells Services	Equipment - Drilling machinery, Mud equipment, Production surface equipment, Drilling tools, Retrievable production tools, Casing, Tubing, Liner, Cementing equipment, Line hanger systems, Fishing & repair tools, Drilling & mud control instruments, Production well test & monitoring instruments, Wellhead equipment, Production string components, Derricks, Drill bits, BOP, Wireline equipment, Coiled tubing tools and Downhole pressure control equipment. Services - Drilling rigs, Production drilling, Conductor piling, Cementing, Casing/Tubing, Mud logging, MWD/LWD, Electrical logging, Coring, Fishing/Wireline, Workover, Well testing, Well completion, Stimulation, Perforation, Gravel packing, Fracturing, Plugging & Coiled tubing services
Dynamic Positioning Systems	DPS software, hardware etc
Electrical Equipment, Materials & Services	Transformers, Switches, Plugs, Connectors, Rectifiers, Inverters, Converters, Circuit breakers, Junction boxes, Lamps, Lighting equipment, Cathodic protection equipment, Transits & glands, Capacitors, Earthing rods, Masts, Poles, Signaling,
Electronics	Methods, Devices and Components - capacitors, resistors, diodes, transistors etc
Energy Conservation	Consultation, analysis and equipment and methods used to conserve energy for the domestic, commercial and industrial sectors
Energy Conversion Processes	All biomass specific conversion processes; Combustion, Thermo-chemical & Biochemical
Energy Storage Systems	Oil, Gas, LNG, LPG, Regasification, Gasometres, Salt Caverns
Engines	Oil / Diesel and Air / Gas engines
Environmental Assessment & Monitoring	Surveys - Ariel, Bird, Coastal, Marine life, Shipping and Military. Environmental Management. Noise Monitoring.
Exploration & Production	Oil and Gas E&P
Explosives	Explosives used in industry - Mining, demolition and site preparation
Fabrication & Construction	Machines, structures and other equipment
Feasibility / Front End Studies	FEED - Front end engineering and design
Fluids & Lubricants	e.g. hydraulic fluids, drilling muds, lubricants, etc
Forging & Casting	Metal and non-metal; Plates, Bars, , Gratings, Bolts, Nuts, Doors, Manholes, Hatches, Outfitting, Gangways, Rails, Rods, Solders,
Foundations & Piles	Transition Pieces, Monopile, Jacket, Tripod, Gravity Based Structure
Freight, Logistics & Transportation	Waste transport, Freight forwarding services, Cargo handling, Stevedoring, Helicopter services, Airports, Air charter services, etc
Gas Turbines	Drive, Electric, Generation, Mechanical & Power gas turbines
Gears & Gearboxes	Clutches, Couplings, etc
Generators	Power systems, Drivers, Motors, Blowers, Gas expanders & Steam turbines,

3 Appendices

Classification	Includes
Geoservices	Production logging and well testing
Grid Interface / Substations	Onshore, Offshore
Grouting	Connecting sections of pre-cast concrete, fill void, seal joints etc.
Hazardous Area Equipment & Services	Lighting, Switches, Plugs, Sockets, couplers, Joint Boxes, Heaters and fans, Torches, Control stations, sounders and strobes, flexible conduits, waste collection and disposal
Heaters, Heat Exchangers, Furnaces, Boilers etc.	Heat transfer equipment, Shell & tube heat exchangers, Steam boilers, Stacks, Flares. Burners, Igniters, Radiators & Electric heaters
Hoses & Fittings	Flanges, Elbows, Hangers, Jointings, Packings & Tightenings
Hydraulics & Pneumatics	Hydraulic Machinery, thermal
Hydroelectric Turbines	Turbine, Turbine shaft
Inspection & Testing	Dimensional control / verification, Instrument testing, Laboratory testing, Non-destructive testing, Pressure testing, Surface treatment inspection, Third party measurement services and Calibration services, Rope/Scaffold access
Installation & Commissioning	Dredging, Hook-up services, Trenching & excavation, Gravel & rock dumping, etc
Instrumentation	Flow, Level, Meteorological, Metering, Pressure, Temperature & Fire/Smoke/Gas/Heat Detection Instruments, Detectors & analysers, Instrument tubing & fittings, Junction boxes, Metering equipment & systems, Simulator systems, Alarm / control systems, Separators, Filters, Strainers, Mixers, Agitators, Blenders, Feeders, Sensors, Control Panels
Insulation	Thermal & acoustic insulation materials (cladding etc), Refractory materials, etc
Integrated Services	Some combination of; Production supervision, Reservoir development, Extended well testing, Early production services, Well management / construction services & Field development,
International Trade	Capital, goods and services
Land & Premises	Planning services, Office space, Conference facilities, Training facilities, Meeting rooms,
Legal	Solicitors, Legal advisers & Law firms
Legislation & Regulations	Legislation (or "statutory law") promulgated (or "enacted") by a legislature or other governing body. Regulation: legal restrictions promulgated by a government authority, self-regulation, social regulation (e.g. norms), co-regulation and market regulation.
Local Authority	County/state/district/regional council/authority
Machine Shops	Making, finishing, or repairing machines or machine parts.
Maintenance, Modification & Operation	Service vessels, vessel access systems, access platforms, Helicopter winching platforms,
Market Research	Industry research on products, trends, and markets.
Marketing	External communications, Image consultants, Exhibition space, Media relations, Promotional sales, Publicity campaigns,
Material & Product Handling	Davits, Hoists, Winches, Elevators, Lifting gear, Conveyors, Feeders, Loading arms, Scaffolding & weighing equipment, Forklifts,
Media	Journals, Newspapers, Magazines and Newsletters,
Medical	Medical equipment, services, personel
Metal Material	Steel, aluminium, lead, copper, brass etc
Navigation Aids	Radar, Lighthouses, Beacons, Fog Horns, Aviation Lights, Maritime Lights
Networking & Events	Production and management of; Conferences, Exhibitions & Events
Non-Metal Material	Plastics, Composites, Carbon fibre etc
Patent, Trademark & Copyright	Intellectual property & Registered design

3 Appendices

Classification	Includes
Personnel	Personnel supply, HR advice, Redundancy, Employment issues,
Photovoltaic (PV) Systems & Supplies	Solar Cells, Solar Modules, inverter etc
Pipes, Pipelines & Risers	Laying, Grout bags, Mattresses, Stabilisation, Tunnels, Pipeline flushing, Pipeline isolation systems, Pipe cutting & bending, Flow assurance Piggings, Pig launchers, External/internal inspection, Prefabricated spools, Pipe coating / protection systems, Perforating,
Ports & Supply Bases	floating docks, pontoons, coffer-dams, floating landing stages, warehousing, storage etc
Process Control	Monitoring systems and software
Process Equipment	Columns, boilers, tanks, separators, valves etc
Project Management	Project Management
Propulsion Systems	Thrusters, Aero, Land, Marine, Prime movers & Underwater propulsion systems
Publications & Technical Manuals	Technical documentation, Books & Directories,
Pumps & Accessories	Centrifugal, Rotary, Multiphase, Downhole, Submersible, Reciprocating, Diaphragm, Screw & Liquid jet pumps
Reservoir Engineering	Reservoir evaluation, etc
Ropes	Wire & Synthetic ropes etc
Rotor Blades	Wind turbine blades, tidal current
ROVs	ROVs and accessories (i.e. Cage, Manipulators, Thrusters, etc)
Safety	Risk assessment, Fire & gas protection systems, Fire/smoke/gas/heat detection instruments, Escape tools, Inert gas systems, Auditing, Emergency response, Anti-slip products, Protective clothing & workwear,
Scour Protection	Rock Dumping and monitoring devices
Seals & Gaskets	rubber and metal seals and carbon, graphite gaskets
Security	Risk assessment, Intruder control
Seismic	2d / 3d / 4c / 4d data acquisition, interpretation & processing, Site surveys, Well velocity surveys, Interpretation services
Signs	Interior and exterior
Subsea Production & Control	Subsea xmas trees, templates, manifold, Control systems,
Supply Chain Management	Cost reduction, Performance improvement, etc
Support Vessels	Pressure Pumping Vessel, Tugs, ROV support, Diving support vessels, Barges & Accommodation vessels, workboats
Surface Treatment	Sand blasting, painting & coatings, surface protection
Survey & Positioning	Underwater acoustic equipment, Acoustic telemetry systems, Sonar, Chart & map production, Oceanographic services, Photogrammetry surveying, Rig positioning, GIS Systems, Hydrographic site surveys, Oceanographic services, GPS, Bathymetry, Side scan sonar, Sub bottom profiling, Evacuation equipment, Life boats, Survival equipment - Suits, Flares, Distress beacon, GPS,
Survival Offshore	
Tankers	Oil, LNG, LPG tankers
Technology Services	Technology transfer services
Topside/ Deck Structures	Offshore structures - Fixed Platform, Floating, Semi-submersible, Spars, Substations (Wind) etc
Towers	Towers for wind turbines
Trade Association	Trade Associations - Any organisation founded and funded by businesses that operate in a specific industry.
Training	Industry and departmental specific

3 Appendices

Classification	Includes
Umbilicals	e.g. fibre optic, power, hydraulic, bundled,
Valves & Accessories	Ball, Check, Control, Diaphragm, Gate, Globe, Safety, Relief, Subsea, Solenoid, Butterfly, Needle & Plug valves, Actuators & Bursting Discs
Waste Management	Oil recovery equipment & accessories, Waste gas & water treatment / recovery equipment, Waste disposal & Drainage services
Welding	Gas and electric welding & cutting. Hot tapping
Wellheads & Xmas Trees	Surface Wellheads & Xmas Trees (For Subsea please refer to Subsea Production)
Wind Turbines	Nacelles
Workshop & Hand tools	Mechanical & electrical hand tools

3 Appendices

3.2 Sector Analysis

Supply Chain Activities by Sector														
Classifications	Offshore Wind	Onshore Wind	Bio Fuels	Biomass	Geothermal	Hydro	Hydrogen / Fuel Cell	Nuclear	Oil & Gas	Solar PV	Microgeneration	Wave & Tidal	Carbon Capture & Storage	Gas Storage
Academic Institution	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accountancy, Financial, Insurance & Tax	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accommodation Modules	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗
Anchors & Moorings	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✓
Architectural / Building Materials	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Bearings	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Bio Feedstock	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗
Bolting, Fixing & Fasteners	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Brakes	✓	✓	✗	✗	✗	✓	✗	✗	✓	✗	✓	✓	✗	✗
Buoys & Buoyancy Materials	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✓
Business Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cables & Connectors	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cases & Packaging	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Certification	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chemicals, Oils & Paints	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
CO ² Process Equipment	✗	✗	✓	✓	✓	✗	✗	✗	✓	✗	✓	✗	✓	✓
Communication Systems	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓
Compressors	✗	✗	✓	✓	✓	✗	✓	✓	✓	✗	✓	✗	✓	✓
Computing & Information Technology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Construction Vessels	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✓	✗
Control Systems	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Cooling, Heating, Ventilation & Air Conditioning	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Corrosion Protection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cranes (Fixed)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	✓	✓
Cranes (Mobile)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Cryogenic Equipment	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓
Decommissioning & Abandonment	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓
Diving & Underwater Services	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓

3 Appendices

Supply Chain Activities by Sector	Offshore Wind	Onshore Wind	Bio Fuels	Biomass	Geothermal	Hydro	Hydrogen / Fuel Cell	Nuclear	Oil & Gas	Solar PV	Microgeneration	Wave & Tidal	Carbon Capture & Storage	Gas Storage
Classifications														
Drilling & Wells	x	x	x	x	✓	x	x	x	✓	x	x	x	✓	✓
Dynamic Positioning Systems	✓	x	x	x	x	x	x	x	✓	x	x	✓	✓	✓
Electrical Equipment, Materials & Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Electronics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Energy Conservation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Energy Conversion Processes	✓	✓	✓	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓
Energy Storage Systems	x	x	x	x	x	x	✓	x	✓	x	x	x	x	x
Engines	x	x	x	x	x	x	x	x	✓	x	x	x	x	x
Environmental Assessment & Monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Exploration & Production	x	x	x	x	x	x	x	x	✓	x	x	x	x	x
Explosives	x	x	x	x	x	✓	x	x	✓	x	x	x	✓	x
Fabrication & Construction	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓
Feasibility / Front End Studies	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓
Fluids & Lubricants	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Forging & Casting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Foundations & Piles	✓	✓	x	x	x	x	x	x	✓	✓	✓	✓	x	x
Freight, Logistics & Transportation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gas Turbines	x	x	✓	✓	✓	x	x	✓	✓	x	✓	x	x	x
Gears & Gearboxes	✓	✓	x	✓	x	✓	x	x	✓	x	✓	✓	x	x
Generators	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	x	x
Geoservices	x	x	x	x	✓	x	x	x	✓	x	x	x	✓	x
Grid Interface / Substations	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	x
Grouting	✓	✓	x	x	x	x	x	x	✓	x	x	✓	✓	✓
Hazardous Area Equipment & Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heaters, Heat Exchangers, Furnaces, Boilers etc.	✓	✓	✓	✓	✓	x	x	✓	✓	x	✓	x	x	x
Hoses & Fittings	x	x	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓
Hydraulics & Pneumatics	✓	✓	x	✓	✓	x	x	✓	✓	x	✓	✓	x	x
Hydroelectric Turbines	x	x	x	x	x	✓	x	x	x	x	✓	✓	x	x
Inspection & Testing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3 Appendices

Supply Chain Activities by Sector														
Classifications	Offshore Wind	Onshore Wind	Bio Fuels	Biomass	Geothermal	Hydro	Hydrogen / Fuel Cell	Nuclear	Oil & Gas	Solar PV	Microgeneration	Wave & Tidal	Carbon Capture & Storage	Gas Storage
Installation & Commissioning	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Instrumentation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Insulation	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✗
Integrated Services	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✗	✓	✓
International Trade	✗	✗	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓
Land & Premises	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Legal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legislation & Regulations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Local Authority	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Machine Shops	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✗
Maintenance, Modification & Operation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Market Research	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Marketing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Material & Product Handling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Media	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Medical	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Metal Material	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Navigation Aids	✓	✓	✗	✗	✗	✓	✗	✓	✓	✓	✗	✓	✓	✓
Networking & Events	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-Metal Material	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Patent, Trademark & Copyright	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Personnel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Photovoltaic (PV) Systems & Supplies	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✗	✗	✗
Pipes, Pipelines & Risers	✗	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Ports & Supply Bases	✓	✓	✓	✓	✗	✗	✗	✓	✓	✗	✗	✓	✓	✓
Process Control	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗	✗	✓	✓
Process Equipment	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗	✗	✓	✓
Project Management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Propulsion Systems	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗

3 Appendices

Supply Chain Activities by Sector	Offshore Wind	Onshore Wind	Bio Fuels	Biomass	Geothermal	Hydro	Hydrogen / Fuel Cell	Nuclear	Oil & Gas	Solar PV	Microgeneration	Wave & Tidal	Carbon Capture & Storage	Gas Storage
Classifications														
Publications & Technical Manuals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pumps & Accessories	✗	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Reservoir Engineering	✗	✗	✗	✗	✓	✗	✗	✗	✓	✗	✗	✗	✓	✓
Ropes	✓	✓	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✓
Rotor Blades	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗
ROVs	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✓	✓
Safety	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Scour Protection	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓	✗
Seals & Gaskets	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Security	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
Seismic	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✓	✓
Signs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Subsea Production & Control	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓	✓
Supply Chain Management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Support Vessels	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓
Surface Treatment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Survey & Positioning	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗
Survival Offshore	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✓	✗
Tankers	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓
Technology Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Topside/Deck Structures	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗
Towers	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗
Trade Association	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Training	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Umbilicals	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗
Valves & Accessories	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓
Waste Management	✗	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗	✗	✗	✗
Welding	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Wellheads & Xmas Trees	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗

3 Appendices

Supply Chain Activities by Sector														
	Offshore Wind	Onshore Wind	Bio Fuels	Biomass	Geothermal	Hydro	Hydrogen / Fuel Cell	Nuclear	Oil & Gas	Solar PV	Microgeneration	Wave & Tidal	Carbon Capture & Storage	Gas Storage
Classifications														
Wind Turbines	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗
Workshop & Hand tools	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

3 Appendices

3.3 SIC Code Comparison

Activity	SIC Code 2007
Academic Institution	72.10 (Research and experimental development on natural sciences and engineering) 85.20 (Primary education) 85.31 (General secondary education) 85.32 (Technical and vocational secondary education) 85.41 (Sub-degree level higher education) 85.42/1 (First-degree level higher education) 85.42/2 (Post-graduate level higher education) 85.5/59 (Other education not elsewhere classified) 94.12 (Academic Organisations)
Accommodation Modules	55.10 (Hotels and similar accommodation) 55.90 (Other accommodation)
Accountancy, Financial, Insurance & Tax	64.19/1 (Banks) 64.19/2 (Building societies) 64.91 (Financial leasing) 64.92/1 (Credit granting by non-deposit taking finance houses and other specialist consumer credit grantors) 64.99/2 (Factoring) 64.92/2 (Activities of mortgage finance companies) 64.92/9 (Other credit granting not elsewhere classified) 64.30/1 (Activities of investment trusts) 64.30/2 (Activities of unit trusts) 64.99/1 (Security dealing on own account) 64.20/5 (Activities of financial services holding companies) 64.30/3 (Activities of venture and development capital companies) 64.30/4 (Activities of open-ended investment companies) 65.23/9 (Financial Intermediation not elsewhere classified) 65.12 (Non-life Insurance) 66.11 (Administration of financial markets) 66.30 (Fund management activities) 66.12 (Security and commodity contracts brokerage) 67.13 (Activities auxiliary to financial intermediation not elsewhere classified) 66.2 (Activities auxiliary to insurance and pension funding) 69.20/1 (Accountancy and auditing services) 69.20/2 (Book keeping activities) 69.20/3 (Tax Consultancy) 70.22/1 (Financial management) 70.22/9 (Management consultancy activities)

3 Appendices

Activity	SIC Code 2007
Anchors & Moorings	25.99 (Manufacture of other fabricated metal products not elsewhere classified)
Architectural / Building Materials	16.23(Manufacture of other builders' carpentry and joinery) 25.23/9 (Building products made of plastic (manufacture)) 23.32 (Building materials made of clay (non refractory) (manufacture)) 23.51 (Cement (Manufacture)) 26.53 (Building plaster (manufacture)) 26.61 (Cement articles for use in construction (manufacture)) 23.65 (Building materials made of vegetable substances (manufacture)) 23.69 (Manufacture of other articles of concrete, plaster and cement) 46.41 (Wholesale of textiles) 46.73 (Wholesale of wood, construction materials and sanitary equipment) 47.52 (Building materials such as bricks, wood, sanitary equipment (retail))
Bearings	28.15 (Manufacture of bearings, gears, gearing and driving elements) 34.30 (Manufacture of parts and accessories for motor vehicles)
Bio Feedstock	01.11 (Growing of cereals (except rice), leguminous crops and oil seeds)
Bolting, Fixing & Fasteners	25.94 (Manufacture of fasteners, screw machine products, chain and springs)
Brakes	28.41 (Manufacture of metal forming machinery) 29.32 (Manufacture of other parts and accessories for motor vehicles) 28.41 Manufacture of metal forming machinery
Buoys & Buoyancy Materials	16.2(Manufacture of products of wood, cork, straw and plaiting materials) 30.11 (Building of ships and floating structures)
Business Development	70.22 (Business and other management consultancy activities) 70.22/9 Management consultancy activities (other than financial management)
Cables & Connectors	13.94 (Manufacture of cordage, rope, twine and netting) 25.93 (Manufacture of wire products, chain and springs) 27.32 (Manufacture of insulated wire and cable) 35.11 (Building and repairing of ships) 42.22 (Construction of utility projects for electricity and telecommunications) 42.91 (Construction of water projects) 64.20 (Telecommunications) 27.31 (Manufacture of fibre optic cables) 27.32 (Manufacture of other electronic and electric wires and cables)
Cases & Packaging	16.24 (Manufacture of wooden containers) 17.21 (Manufacture of corrugated paper and paperboard and of containers of paper and paperboard) 17.21/1 (Manufacture of corrugated paper and paperboard; manufacture of sacks and bags of paper) 17.21/9 (Manufacture of paper and paperboard containers other than sacks and bags) 22.22 (Manufacture of plastic packing goods) 29.24 (Manufacture of other general purpose machinery not elsewhere classified) 63.40 (Activities of other transport agencies) 82.92 (Packaging activities)
Certification	71.20 (Technical testing and analysis)

3 Appendices

Activity	SIC Code 2007
Chemicals, Oils & Paints	19.20/1 (Mineral oil refining) 20.13 (Manufacture of other inorganic basic chemicals) 20.14 (Manufacture of other organic basic chemicals) 20.30/1 (Manufacture of paints, varnishes and similar coatings, mastics and sealants) 20.53 (Manufacture of essential oils) 20.59 (Manufacture of other chemical products not elsewhere classified) 46.12 (Agents involved in the sale of fuels, ores, metals and industrial chemicals) 46.71/1 (Wholesale of petroleum and petroleum products) 46.71/9 (Wholesale of other fuels and related products) 46.75 (Wholesale of chemical products)
CO2 Process Equipment	28.14 (Manufacture of taps and valves) 26.51/1 (Manufacture of electronic industrial process control equipment) 26.51/3 (Manufacture of non-electronic industrial process control equipment) 46.69 (Wholesale of other machinery for use in industry, trade and navigation)
Communication Systems	27.32 (Manufacture of insulated wire and cable) 26.30/1 (Manufacture of telegraph and telephone apparatus and equipment) 26.30/9 Manufacture of communication equipment (other than telegraph and telephone apparatus and equipment) 46.52 (Wholesale of electronic and telecommunications equipment and parts) 47.42 (Retail sale of telecommunications equipment in specialised stores) 61.20 (Wireless telecommunications activities) 61.10 (Wired telecommunications activities) 71.34 (Renting of other machinery and equipment not classified elsewhere) 74.20/6 (Engineering related scientific and technical consulting activities) 61.90 (Other telecommunications activities)
Compressors	28.13/2 (Manufacture of compressors)
Computing & Information Technology	26.20 (Manufacture of computers and peripheral equipment) 62.09 (Other information technology and computer service activities) 46.51 (Wholesale of computers, computer peripheral equipment and software) 77.33 (Renting and leasing of office machinery & equipment including computers) 72.10 (Hardware consultancy) 58.29 (Other software publishing) 62.02 (Computer consultancy activities) 62.03 (Computer facilities management activities) 72.60 (Other computer related activities) 62.01 (Computer programming activities)
Construction Vessels	50.20 (Other supporting water transport activities) 30.11 (Building of ships and floating structures) 33.15 (Repair and maintenance of ships and boats)
Control Systems	26.51/2 (Manufacture of electronic industrial process control equipment) 26.51/4 (Manufacture of non-electronic industrial process control equipment)

3 Appendices

Activity	SIC Code 2007
Cooling, Heating, Ventilation & Air Conditioning	28.25 (Manufacture of non-domestic cooling and ventilation equipment) 27.51 (Manufacture of electric domestic appliances) 43.22 (Plumbing, heat and air-conditioning installation) 46.74 (Wholesale of hardware, plumbing and heating equipment and supplies)
Corrosion Protection	71.20 (Technical testing and analysis) 43.29 (Other construction installation)
Cranes (Fixed)	43.99/9 Specialised construction activities (other than scaffold erection) n.e.c. 28.22 (Manufacture of lifting and handling equipment) 30.11 (Building of ships and floating structures)
Cranes (Mobile)	43.99/9 Specialised construction activities (other than scaffold erection) n.e.c. 28.22 (Manufacture of lifting and handling equipment)
Cryogenic Equipment	28.12 (Manufacture of fluid power equipment) 28.14 (Manufacture of other taps and valves) 28.99 (Manufacture of other special-purpose machinery n.e.c.) 25.30 (Manufacture of steam generators, except central heating hot water boilers)
Decommissioning & Abandonment	09.10 (Support activities for petroleum and natural gas extraction)
Diving & Underwater Services	22.19 (Manufacture of other rubber products) 09.10 (Support activities for petroleum and natural gas extraction) 28.9 (Manufacture of other special-purpose machinery)
Drilling & Wells	09.10 (Support activities for petroleum and natural gas extraction) 20.59 (Manufacture of other chemical products n.e.c.) 25.73 (Manufacture of tools) 28.99 (Manufacture of other special-purpose machinery n.e.c.) 28.92/1 (Manufacture of machinery for mining) 30.11 (Building of ships and floating structures) 77.39 (Renting and leasing of other machinery, equipment and tangible goods n.e.c.)
Dynamic Positioning Systems	52.22 Service activities incidental to water transportation
Electrical Equipment, Materials & Services	24.10 (Manufacture of basic iron and steel and of ferro alloys) 27.12 (Manufacture of electricity distribution and control apparatus) 27.32 (Manufacture of insulated wire and cable) 27.20 (Manufacture of batteries and accumulators) 27.40 (Manufacture of electric lighting equipment) 33.20 Installation of industrial machinery and equipment 26.11 (Manufacture of electronic components) 27.33 Manufacture of wiring devices 43.21 (Installation of electrical wiring and fittings) 46.69 (Wholesale of other machinery for use in industry, trade and navigation) 71.12/1 (Engineering design activities for industrial process and production)
Electronics	28.99 (Manufacture of other special-purpose machinery n.e.c.) 46.52 (Wholesale of electronic and telecommunications equipment and parts) 26.30/1 (Manufacture of telegraph and telephone apparatus and equipment) 26.30/9 Manufacture of communication equipment (other than telegraph and telephone apparatus and equipment) 33.13 (Repair of electronic and optical equipment)

3 Appendices

Activity	SIC Code 2007
Energy Conservation	71.12/2 (Engineering related scientific and technical consulting activities) 84.13 (Regulation of and contribution to more efficient operation of businesses)
Energy Conversion Processes	35.11 (Production of electricity)
Energy Storage Systems	25.29 (Manufacture of other tanks, reservoirs and containers of metal) 35.11 (Production of electricity)
Engines	28.11 (Manufacture of engines and turbines, except aircraft, vehicle & cycle engines) 29.10 (Manufacture of motor vehicles)
Environmental Assessment & Monitoring	74.90/1 (Environmental consulting activities)
Exploration & Production	06.10 (Extraction of crude petroleum) 06.20 (Extraction of natural gas) 09.10 (Support activities for petroleum and natural gas extraction) 43.29 (Other construction installation) 71.12/2 (Engineering related scientific and technical consulting activities)
Explosives	20.51 (Manufacture of explosives)
Fabrication & Construction	25.11 (Manufacture of metal structures and parts of structures) 30.11 (Building of ships and floating structures) 41.20/1 (Construction of commercial buildings) 33.15 (Repair and maintenance of ships and boats) 42.99 (Construction of other civil engineering projects n.e.c.) 43.29 (Other construction installation) 77.32 (Renting and leasing of construction and civil engineering machinery and equipment) 71.12 (Engineering consultative and design activities)
Feasibility / Front End Studies	71.12 (Engineering activities and related technical consultancy) 71.12/1 (Engineering design activities for industrial process and production)
Fluids & Lubricants	46.71 (Wholesale of solid, liquid and gaseous fuels and related products) 46.71/1 (Wholesale of petroleum and petroleum products) 46.71/9 (Wholesale of fuels and related products (other than petroleum and petroleum products))
Forging & Casting	25.50 (Forging, pressing, stamping and roll-forming of metal; powder metallurgy) 24.5 Casting of metals
Foundations & Piles	43.29 (Other construction installation) 43.99/9 (Specialised construction activities (other than scaffold erection) n.e.c.)
Freight, Logistics & Transportation	49.41 (Freight transport by road) 50.20 (Sea and coastal freight water transport) 50.30 (Inland passenger water transport) 50.40 (Inland freight water transport) 52.24 (Cargo handling) 52.29 (Other transportation support activities) 77.35/2 (Renting and leasing of freight air transport equipment)
Gas Turbines	28.11 (Manufacture of engines and turbines, except aircraft, vehicle and cycle engines)
Gears & Gearboxes	28.15 Manufacture of bearings, gears, gearing and driving elements

3 Appendices

Activity	SIC Code 2007
Generators	25.30 (Manufacture of steam generators, except central heating hot water boilers) 28.11 (Manufacture of engines and turbines, except aircraft, vehicle & cycle engines) 27.32 (Manufacture of insulated wire and cable) 27.90 Manufacture of other electrical equipment
Geoservices	09.10 (Support activities for petroleum and natural gas extraction)
Grid Interface / Substations	35.12 (Transmission of electricity) 35.14 (Trade of electricity) 35.13 (Distribution of electricity)
Grouting	20.30/1 (Manufacture of paints, varnishes and similar coatings, mastics and sealants)
Hazardous Area Equipment & Services	38.12 (Collection of hazardous waste) 38.22 (Treatment and disposal of hazardous waste)
Heaters, Heat Exchangers, Furnaces, Boilers etc.	28.21 (Manufacture of ovens, furnaces and furnace burners) 25.21 (Manufacture of central heating radiators and boilers) 28.25 (Manufacture of non-domestic cooling and ventilation equipment) 25.30 (Manufacture of steam generators, except central heating hot water boilers) 81.22/3 (Furnace and chimney cleaning services) 43.22 (Plumbing, heat and air-conditioning installation) 46.74 (Wholesale of hardware, plumbing and heating equipment & supplies) 71.12/1 (Engineering design activities for industrial process and production) 33.11 (Repair of fabricated metal products)
Hoses & Fittings	22.19 (Manufacture of other rubber products) Include: Tubes, pipes and hoses) 22.21 (Manufacture of plastic plates, sheets, tubes and profiles) 28.12 (Manufacture of fluid power equipment) 24.20 (Manufacture of tubes, pipes, hollow profiles and related fittings, of steel)
Hydraulics & Pneumatics	28.11 (Manufacture of engines and turbines, except aircraft, vehicle and cycle engines) 28.13/1 (Manufacture of pumps) 28.15 Manufacture of bearings, gears, gearing and driving elements 28.22 (Manufacture of lifting and handling equipment)
Hydroelectric Turbines	28.11 (Manufacture of engines and turbines, except aircraft, vehicle and cycle engines) 77.39 Renting and leasing of other machinery, equipment and tangible goods n.e.c.
Inspection & Testing	26.51/1 (Manufacture of electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 26.51/3 (Manufacture of non-electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 71.20 (Technical testing and analysis)
Installation & Commissioning	09.10 (Support activities for petroleum and natural gas extraction) 33.11 (Repair of fabricated metal products) 33.15 (Repair and maintenance of ships and boats) 30.11 (Building of ships and floating structures) 33.20 Installation of industrial machinery and equipment 42.91 (Construction of water projects) Dredging 50.20 (Sea and coastal freight water transport)

3 Appendices

Activity	SIC Code 2007
Instrumentation	26.51/1 (Manufacture of electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 26.51/3 (Manufacture of non-electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 46.69 (Wholesale of other machinery for use in industry, trade and navigation)
Insulation	43.29 (Other construction installation)
Integrated Services	06.10 (Extraction of crude petroleum) 09.10 (Support activities for petroleum and natural gas extraction) 06.20 (Extraction of natural gas)
International Trade	99.00 (Activities of extraterritorial organisations and bodies)
Land & Premises	70.11 (Development and selling of real estate) 68.10 (Buying & selling of own real estate) 68.20/2 (Letting and operating of conference and exhibition centres) 68.20/9 (Other letting of own property) 68.31 (Real estate agencies) 68.32 (Management of real estate on a fee or contract basis) 71.11/2 (Urban planning and landscape architectural activities)
Legal	69.10/1 (Barristers at Law) 69.10/2 (Solicitors) 69.10/9 (Other legal activities not elsewhere classified)
Legislation & Regulations	84.24 (Public order and safety activities) 84.13 (Regulation of and contribution to more efficient operation of business)
Local Authority	84.11 (General public administration activities) 84.12 (Regulation of the activities of providing health care, education, cultural services and othersocial services, excluding social security) 84.13 (Regulation of and contribution to more efficient operation of businesses)
Machine Shops	24.10 (Manufacture of basic iron and steel and of fero alloys) 71.12 (Engineering activities and related technical consultancy) 71.12/1 (Engineering design activities for industrial process and production)
Maintenance, Modification & Operation	50.20 (Sea and coastal freight water transport) 33.15 (Repair and maintenance of ships and boats) 09.10 (Support activities for petroleum and natural gas extraction) 33.17 (Repair and maintenance of transport equipment n.e.c.) 81.10 (Combined facilities support activities)
Marketing	70.21 (Public relations and communication activities) 73.12 (Media representation) 82.30/1 (Activities of exhibition and fair organisers) 73.11 (Advertising agencies) 82.30/2 (Activities of conference organisers) 70.22/9 (Management consultancy activities (other than financial management))
Market Research	73.20 (Market research and public opinion polling)
Material & Product Handling	28.22 (Manufacture of lifting and handling equipment) 77.32 (Renting of construction and civil engineering machinery and equipment)

3 Appendices

Activity	SIC Code 2007
Media	58.13 (Publishing of newspapers) 58.14/2 Publishing of consumer, business and professional journals and periodicals 63.99 (Other information service activities n.e.c.) 63.91 (News agency activities)
Medical	32.50 (Manufacture of medical and dental instruments and supplies) 20.11 (Manufacture of industrial gases) 47.74 (Retail sale of medical and orthopaedic goods in specialised stores) 86.90 (Other human health activities)
Metal Material	24.10 (Manufacture of basic iron and steel and of ferro-alloys) 25.11 (Manufacture of metal structures & parts of structures) 25.61 (Treatment and coating of metals) 28.91 (Manufacture of machinery for metallurgy) 46.72 (Wholesale of metals and metal ores)
Navigation Aids	26.51/1 (Manufacture of electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 26.51/3 (Manufacture of non-electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 46.52 (Wholesale of other electronic parts and equipment) 46.69 (Wholesale of other machinery for use in industry, trade and navigation) 63.22 (Other supporting water transport activities)
Networking & Events	82.30/1 (Activities of exhibition and fair organisers) 82.30/2 (Activities of conference organisers)
Non-Metal Material	20.16 (Manufacture of plastics in primary forms) 20.17 (Manufacture of synthetic rubber in primary forms) 22.29 (Manufacture of other plastic products)
Patent, Trademark & Copyright	69.10 (Legal activities) 69.10/9 (Activities of patent and copyright agents)
Personnel	70.22/9 (Business and management consultancy activities not elsewhere classified) 78.30 (Human resources provision) 78.10 (Activities of employment placement agencies)
Photovoltaic (PV) Systems & Supplies	43.21 (Installation of electrical wiring and fittings) 43.22 (Installation of non-electronic solar energy collectors)
Pipes, Pipelines & Risers	23.32 (Manufacture of bricks, tiles and construction products, in baked clay) 24.20 (Manufacture of steel tubes) 24.44 (Copper production) 25.11 (Manufacture of metal structures and parts of structures) 28.92/1 (Manufacture of machinery for mining) 28.99 (Manufacture of other special purpose machinery not elsewhere classified) 71.12/1 (Engineering design activities for industrial process and production) 49.50 (Transport via pipelines) 71.20 (Technical testing and analysis)

3 Appendices

Activity	SIC Code 2007
Ports & Supply Bases	52.24 (Cargo handling) 50.20 (Other supporting water transport activities) 52.22 (Service activities incidental to water transportation)
Process Control	33.20 (Installation of industrial machinery and equipment)
Process Equipment	28.14 (Manufacture of taps and valves) 26.51/1 (Manufacture of electronic industrial process control equipment) 26.51/3 (Manufacture of non-electronic industrial process control equipment) 46.69 (Wholesale of other machinery for use in industry, trade and navigation)
Project Management	25.11 (Manufacture of metal structures and parts of structures) 30.11 (Building of ships and floating structures) 42.99 (Construction of other civil engineering projects n.e.c.) 77.32 (Renting of construction and civil engineering machinery and equipment) 71.12/1 Engineering design activities for industrial process and production
Propulsion Systems	28.11 (Manufacture of engines and turbines, except aircraft, vehicle and cycle engines)
Publications & Technical Manuals	58.14/1 (Publishing of learned journals) 58.14/2 (Publishing of consumer, business and professional journals and periodicals)
Pumps & Accessories	28.13/1 (Manufacture of pumps) 46.69 (Wholesale of other machinery for use in industry, trade and navigation)
Reservoir Engineering	09.10 (Support activities for petroleum and natural gas extraction)
Ropes	13.94 (Manufacture of cordage, rope, twine and netting) 25.93 (Manufacture of wire products)
Rotor Blades	30.30 (Manufacture of air and spacecraft and related machinery)
ROVs	09.10 (Service activities incidental to oil & gas extraction, excluding surveying) 50.20 (Other supporting water transport activities)
Safety	32.99 (Other manufacturing n.e.c.) - manufacture of fire-resistant and protective safety clothing, 43.21 (Electrical installation) 14.12 (Manufacture of workwear) 85.25 (Fire service activities)
Scour Protection	71.12/1 (Engineering design activities for industrial process and production)
Seals & Gaskets	25.13 (Manufacture of other rubber products) 26.82/1 (Manufacture of asbestos) 29.24 (Manufacture of other general purpose machinery not elsewhere classified) 36.63/1 (Manufacture of stationer's miscellaneous goods) 51.87 (Wholesale of other machinery for use in industry, trade and navigation)
Security	80.10 (Private security activities) 80.20 (Security systems service activities)
Seismic	71.12/2 (Engineering related scientific and technical consulting activities)
Signs	25.99 (Manufacture of other fabricated metal products n.e.c.) - Include Metal Signs) 27.90 (Manufacture of other electrical equipment) - Electrical Signs included)
Subsea Production & Control	09.10 (Support activities for petroleum and natural gas extraction) 06.10 (Extraction of crude petroleum) 06.20 (Extraction of natural gas) 49.50 (Transport via pipeline)

3 Appendices

Activity	SIC Code 2007
Supply Chain Management	70.22/9 (Management consultancy activities (other than financial management))
Support Vessels	50.20 (Other supporting water transport activities) 30.11 (Building of ships and floating structures) 33.15 (Repair and maintenance of ships and boats)
Surface Treatment	43.99/9 (Specialised construction activities (other than scaffold erection) n.e.c.) 20.30/1 (Manufacture of paints, varnishes and similar coatings, mastics and sealants) 43.99/9 (Specialised construction activities (other than scaffold erection) n.e.c.) 43.34/1 (Painting)
Survey & Positioning	26.51/1 (Manufacture of electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 26.51/3 (Manufacture of non-electronic instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment) 46.69 (Wholesale of other machinery for use in industry, trade and navigation) 71.12/2(Engineering related scientific and technical consulting activities)
Survival Offshore	85.59 (Other education n.e.c.) survival training) 32.99 (Other manufacturing n.e.c.) 14.12 (Manufacture of workwear)
Tankers	30.11 (Building of ships and floating structures) - building of commercial vessels: passenger vessels, ferry-boats, cargo ships, tankers, tugs etc.
Technology Services	72.20 (Research & experimental development on natural sciences and engineering) 72.19 (Other research and experimental development on natural sciences and engineering) 71.12 (Engineering activities and related technical consultancy) 71.12/1 (Engineering design activities for industrial process and production) 71.12/2 (Engineering related scientific and technical consulting activities)
Topside/Deck Structures	30.11 (Building of ships and floating structures) - construction of drilling platforms, floating or submersible
Towers	25.11 (Manufacture of metal structures and parts of structures)
Trade Association	99.00 (Activities of extraterritorial organisations and bodies)
Training	85.59 (Other education n.e.c.)
Umbilicals	27.32 (Manufacture of other electronic and electric wires and cables) 27.31 (Manufacture of fibre optic cables)
Valves & Accessories	28.14 (Manufacture of other taps and valves) 46.52 (Wholesale of electronic and telecommunications equipment and parts) Electronic valves and tubes)
Waste Management	39.00 (Remediation activities and other waste management services) 38.11 (Collection of non-hazardous waste) 38.21 (Treatment and disposal of non-hazardous waste)
Welding	20.59 (Manufacture of other chemical products n.e.c.) 24.20 (Manufacture of tubes, pipes, hollow profiles and related fittings, of steel) 25.6 (Treatment and coating of metals; machining) 25.62 (Machining) 28.29 (Manufacture of other general-purpose machinery n.e.c.) 33.11 (Repair of fabricated metal products)
Wellheads & Xmas Trees	09.10 (Support activities for petroleum and natural gas extraction)
Wind Turbines	28.11 (Manufacture of engines and turbines, except aircraft, vehicle and cycle engines)

3 Appendices

Activity	SIC Code 2007
Workshop & Hand tools	25.73 (Manufacture of tools)
	28.24 (Manufacture of portable hand held power tools)
	46.62 (Wholesale of machine tools)
	77.32 (Renting of construction and civil engineering machinery and equipment)
	77.39 (Renting of other machinery and equipment not elsewhere classified)