

Acorn



ACT Acorn Acronyms & Units

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Acronyms

3D	Three Dimensional	CCS	Carbon Capture and Storage
4D	Four Dimensional	CCU	Carbon Capture and Utilisation
Abex	Abandonment Expenditure	CCUS	Carbon Capture Utilisation and Storage
AACE	Association for Advancement of Cost Estimators	CDA	Common Data Access database
ACCE	Aspen Capital Cost Estimator	CDO	CO ₂ Development Organisations
ACT	Accelerating CCS Technologies	CDU	Control Distribution Unit
AGI	Above Ground Installation	CfD	Contract for Difference
AOI	Area of Interest	CO ₂	Carbon Dioxide
AVO	Amplitude Versus Offset	CO ₂ Stored	Database.
BAT	Best Available Technology	CNS	Central North Sea
BDEP	Basic Design and Engineering Package	CoP	Cessation of Production
BECCS	Bio Energy Carbon Capture & Storage	CHP	Combined Heat & Power
BEIS	UK Government Department of Business Energy and Industrial Strategy	CDM	Construction (Design and Management) Regulations
BF	Bellona Foundation	COMAH	Control of Major Accident Hazards Regulations
BFD	Block Flow Diagram	CSU	Commissioning and Start-Up
CA	Competent Authority	CTR	Cost Time Resource
Capex	Capital Expenditure	DCF	Discounted Cash Flow
CCEP	Captain/Caledonia Clean Energy Project	DEA	Diethanol Amine



DEP	Design Engineering Practice	FID	Final Investment Decision
DNV GL	Det Norske Veritas and Germanischer Lloyd	FNPV	Financial Net Present Value
DSV	Dive Support Vessel	FTHP	Flowing Tubing Head Pressure
DTS	Distributed Temperature Sensor	FOAK	First of a Kind
EBN	Energie Beheer Nederland	FWHP	Flowing Well Head Pressure
EGR	Exhaust Gas Recycling	GCCSI	Global CCS Institute
EIA	Environmental Impact Assessment	GRV	Gross Rock Volume
EIS	East Irish Sea	GY	Goldeneye pipeline
ELD	Environmental Liability Directive	H ₂	Hydrogen
EOR	Enhanced Oil Recovery	H ₂ S	Hydrogen Sulphide
EPC	Engineering Procurement Construction	HAZID	Hazard Identification Study
ERA-NET	European Research Area Network	HAZOP	Hazard and Operational Study
ESD	Emergency Situation Depressurisation	HIPPS	High Integrity Pressure Protection System
ESDV	Emergency Shut Down Valve	HPU	Hydraulic Power Units
ETI	Energy Technologies Institute	HSE	Health & Safety Executive
ETS	Emissions Trading Scheme	HVAC	Heating Ventilation and Air Conditioning
EU	European Union	HVDC	High Voltage Direct Current
EUA	European Union Allowance	HWU	Heriot Watt University
FEED	Front End Engineering Design	IRR	Investment Rate of Return
FGD	Flue Gas Desulphurisation	ICCS	Industrial CCS



IMR	Inspection Maintenance & Repair	MOTD	Money of the Day
IP	Intellectual Property	MVD	Minimal Viable Development
IPR	Inflow Performance Relationship	NCS	Norwegian Continental Shelf
IPR	Interim Pipeline Regime	NDA	Non-Disclosure Agreement
K	Permeability	NGG	National Gas Grid
Kh	Horizontal Permeability	NGT	North Gas Transport
Kv	Vertical Permeability	NIST	National Institute of Standards and Technology
KT	Knowledge Transfer	NMR	Nuclear Magnetic Resonance
LCA	Life Cycle Analysis	NOGAT	Northern Gas Transport
LNG	Liquid Natural Gas	NOX	Nitrogen Oxide (emissions)
LP	Low Pressure	NPV	Net Present Value
LTX	Low Temperature Exchange	NPV ₈	NPV using an annual discount rate of 8%
MDEA	Methyl Diethanol Amine	NSMP	North Sea Midstream Partners
MEA	Monoethanol Amine	NTG	Net to Gross
MEA	Modern Equivalent Asset (Replacement Cost)	NTS	National Transmission System
MEG	Mono-Ethylene Glycol	NUI	Normally Unmanned Installation
MER	Maximising Economic Recovery	O&G	Oil and Gas
MGS	Miller Gas System pipeline	O ₂	Oxygen
MMV	Measuring, Monitoring and Verification (during operations)	OEM	Original Equipment Manufacturers
MOC	Management of Change	OGTC	Oil and Gas Technology Centre



Opex	Operational Expenditure	RCN	Research Council Norway
OSDP	Outline Storage Development Plan	rho	Density
OSPAR	Conventions for the Protection of the Marine Environment of the North East Atlantic	ROAD	Rotterdam Capture & Storage Demonstration Project
P&A	Plug & Abandonment	RU	Radboud University
P/T	Pressure / Temperature (as in gauge for measurement)	RVO	Rijksdienst voor Ondernemend Nederland
PBD	Pale Blue Dot Energy	SAGE	Scottish Area Gas Evacuation
PC MMV	Post Closure MMV	SCM	Subsea Control Module
PCI	Projects of Common Interest	SCCS	Scottish Carbon Capture & Storage
PDHG	Permanent Downhole	SDR	Specific Reboiler Duty
Petrel	Model.	SEG	Society of Exploration Geophysicists
PFD	Process Flow Diagram	SEG-Y	2017 file format for the SEG
PHIE	Interpreted Effective Porosity	SEPA	Scottish Environmental Protection Agency
PiP	Pipe in Pipe	SGS	Sequential Gaussian Simulation
PMO	Project Management Office	SIS	Sequential Indicator Simulation
PPA	Peterhead Port Authority	SITHP	Shut In Tube Head Pressure
PPP	Public Private Partnership	SMR	Steam Methane Reformation
PSV	Pressure Control Valve	SNS	Southern North Sea
PV ₁₀	Present Value using an annual discount rate of 10%	SOX	Sulphur Oxide (emissions)
R&D	Research & Development	SPV	Special Purpose Vehicle
		SPRI	Scottish Pollutant Release Inventory



SSAP	Strategic UK CCS Storage Appraisal Project	Vp	P-wave velocity
SSE	Scottish & Southern Electricity	Vs	S-wave velocity
SSIV	Subsea Isolation Valve	VSAT	Very Small Aperture Terminal (wrt satellites)
SSSV	Subsurface Safety Valve	WAGES	Western Area Gas Evacuation System pipeline
SUTU	Subsea Termination Unit	WBS	Work Breakdown Structure
TA	Technical Authority	WGT	West Gas Transport
TAQA	Abu Dhabi National Energy Company PJSC	WHT	Well Head Temperature
TD	Total Depth	WP	Work Pack
THP	Tubing Head Pressure	WPS	Work Pack Structure
TOPSIS	Technique for Order Preference by Similarity to Ideal Solution		
TRL	Technology Readiness Level		
T&S	Transport and Storage		
tvdss	True vertical depth subsea		
UoA	University of Aberdeen		
UoE	University of Edinburgh		
UoL	University of Liverpool		
UKCS	United Kingdom Continental Shelf		
UN IPCC	United Nations Intergovernmental Panel on Climate Change		
UTM	Universal Transverse Mercator		
VLP	Vertical Lift Performance		



Units

'	Shorthand for foot	km ²	Kilometre squared
"	Shorthand for inch	km ³	Cubic kilometre
°	Degrees	k	Kilo (thousand)
°C	Degrees Celsius	kT/yr or kt/yr	Kilo (thousands of) tonnes per year (annum)
£/T or £/t	GBP per tonne	m	Metre
b	Billion	mm	Millimetre
BBO _e	Billion barrel of oil equivalent	m ²	Metre squared
bcf	Billions of cubic feet	m ³	Cubic metre
bara	Bars of atmospheric pressure	M	Mega or million, i.e. 1MW = 1 megawatt, £1M = one million pounds
barg	Bars of gauge pressure	MBoed	Million barrels of oil equivalent per day
D	Darcies	mD	Millidarcies (measure of permeability)
deg	Degrees as in angle, deviation etc.	mDm	Millidarcy meter
ft	Foot	mol%	Percentage by molecular make up
G	Giga (billion)	mmcum	Millions of cubic meters
GT/yr or Gt/yr	Giga (billion) tonnes per year (annum)	Mm ³	Millions of cubic meters (preferred unit)
GW	Gigawatt	mmscfd	Millions of standard cubic feet per day
h	Hour	Mft ³	Millions of cubic feet (preferred unit)
km	Kilometre	msec	Milliseconds



MT/yr or Mt/yr Mega (Million) tonnes per year (annum)

Pa Pascals of pressure

ppm Parts per million

ppmv Parts per million by volume

psia Pounds per square inch of atmospheric pressure

psig Pounds per square inch of gauge pressure

sm³/d Standard cubic meters per day

T or t Tonnes

TCO₂/yr or tCO₂/yr Tonnes of CO₂ per year (annum)

V Volt

We Watts of electrical energy generation

Wh Watts per hour of energy generation

Wt Watts of thermal energy generation

wt% Percentage by weight

