

UK Update

Equipment, components and safety systems for
potentially explosive atmospheres

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ATEX basics

1. Design assessment (type examination)

- EHSR (Annex II)

EHSRs

1.2. *Design and construction*

1.2.1. Equipment and protective systems must be designed and constructed with **due regard to technological knowledge** of explosion protection so that they can be safely operated throughout their foreseeable lifetime.

- Harmonised standards

2 Quality assurance of production process

3 Marking

4 Others: declarations of conformity, instructions, market surveillance (complaints and issues), importing.

ATEX (UKEX) and IECEx brief comparison

	IECEx	ATEX / UKEX
What is it?	Conformity assessment scheme	Legislation
Equipment design assessment	To IEC standards	To EHSRs (normally via harmonised standards)
Production Quality assessment	To ISO/IEC 80079-34	EN 80079-34 used
On standards update	No requirement	“state of the art”
Self-certification	None	For some categories

ATEX (UKEX) Categories

Category	1			2						3		
Electrical / Non-Electrical	E + NE			E			N			E + NE		
Equipment-group	I	II		I	II		I	II		I	II	
(IEC) EPL	Ma	Ga	Da	Mb	Gb	Db	Mb	Gb	Db	n/a	Gc	Dc
(IEC) Normal Zone		0	20		1	21		1	21		2	22
Equipment assessment	III			III								
Production process	IV			VI			VIII+TDF			VIII		
Product verification	V											
Product quality				VII								
Unit verification	IX											

ATEX implementation in the UK

Two main levels of law:

- Primary legislation – Acts of parliament
 - Health and Safety at Work act 1974
- Secondary legislation – Decided by government of the time
 - The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (No 1107) (**EPS**)
 - Implementation of ATEX directive 2014/34/EU
 - Includes a copy of the EHSRs
 - References the ATEX annexes regarding production quality assurance



UK Brexit Legislation

- EU Withdrawal Act 2018
 - Preserved 2016 regulations, enabled them to be amended.
- Product Safety and Metrology etc (Amendment etc) (EU Exit) Regulations 2019 (No 696)
 - Substitutions, additions, deletions, e.g.
 - (d) in the definition of “attestation of conformity”—
 - (i) omit “EU”; and
 - (ii) for “CE” substitute “UK”;
 - Copied production quality assurance Annexes from ATEX Directive (2014/34/EU)
 - Provisions for **transition periods** (36A, 36B) extension of CE marking.

Original UKCA Timetable

- 23rd Jun 2016: UK voted in non-binding referendum to leave UK
 - 31st Jan 2020: UK left EU, remained in single market
 - 1st Jan 2021: **UK leave EU single market**
 - UKCA marking becomes legal
 - CE marking from EU ExNBs remains legal
 - 1st Jan 2022: **CE Marking no longer legal (except NI) ***
 - 1st Jan 2023: All transition ends, UKCA marking on product *
- * Did not happen

(as amended)...

- The Product Safety and Metrology (Amendment and Transitional Provisions) Regulations 2022 (No 1393)
 - Used to extend the transition period to end of 2024 (2027 for labelling)
- 1st August 2023 announcement:

The Department for Business and Trade (DBT) has today announced its **intention to indefinitely extend the use of CE marking** for businesses, applying to 18 regulations owned by DBT.

CE Marked product sold in UK

- Product does not need to be UKCA marked at all.
- CE marking requires meeting all the EU legislation, so requires EU notified bodies, and not UK approved bodies.
- The UK legislation is still required, e.g.
 - UK Declaration of conformity stating that you meet the UK legislative requirements ?
 - Instructions need to be in English
 - Market surveillance: after sales risks (complaints handling, informing authorities) must be UK based – we think.
 - Importer / distributor UK rules

Product manufactured outside UK

External manufacturers:

- Manufacturer outside the UK selling s directly to UK users: there are **no requirements** for an authorised representative.
- Could appoint an authorized representative if they wish.
- Manufacturer retains overall responsibility.
- Manufacturer produces the declaration of conformity

Product imported to UK

Importers:

- Must be within the UK and place the product on the UK market.
- Have primary responsibility to ensure UK legislation has been met.
- Must indicate their, trade name, address in accompanying documentation (and possibly on the product after 31st Dec 2027).

What is future of UKCA?

NZHF, HAR1 & CCUS project updates March 2023

- There are 15 successful applicants from the Net Zero Hydrogen Fund (NZHF) strands 1 (DEVEX) and 2 (CAPEX) round 1 (April 2022) competition window.
- The first electrolytic hydrogen allocation round (HAR1) launched in July 2022. We have shortlisted 20 projects, totalling 408MW capacity, to proceed to the next stage. From this, we intend to award Hydrogen Production Business Model (HPBM) contracts to projects totalling up to 250MW capacity.*
- We have published the Track-1 Project Negotiation List which includes 2 CCUS-enabled hydrogen projects, 5 industrial carbon capture projects, and 1 power project which we have selected through the Cluster Sequencing Process to progress to negotiations to form the first two CCUS clusters, based in HyNet and the East Coast Cluster.

Shortlisted for HAR1

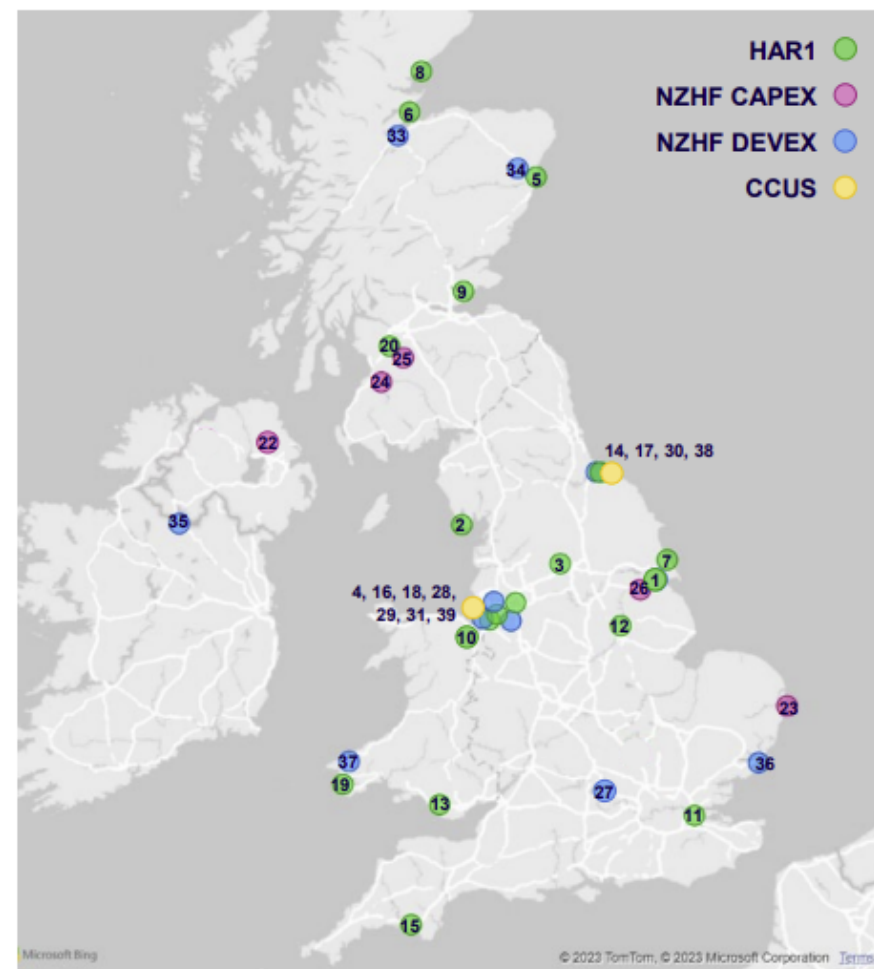
1	Aldbrough Hydrogen Pathfinder	SSE Thermal
2	Barrow Green Hydrogen	Carlton Power
3	Bradford Low Carbon Hydrogen	Hygen
4	Cheshire Green Hydrogen	Progressive Energy Net Zero
5	Commercial Scale Demonstrator	ERM Dolphyn
6	Cromarty Hydrogen Project	Pale Blue Dot Energy
7	Gigastack	Philips 66
8	Gordonbush Hydrogen Project (GBH2)	SSE Renewables
9	Green Hydrogen 1	RES and Octopus Green Hydrogen
10	Green Hydrogen 2	RES and Octopus Green Hydrogen
11	Green Hydrogen 3	RES and Octopus Green Hydrogen
12	H2 Production Plant at High Marnham	JG Pears
13	Hybont	Marubeni Europower
14	HyGreen Teesside	BP Alternative Energy Investments
15	Langage Green Hydrogen	Carlton Power
16	Quill 2	INOVYN ChlorVinyls
17	Tees Green Hydrogen	EDF Renewables Hydrogen
18	Trafford Green Hydrogen	Carlton Power
19	West Wales Hydrogen Project Phase 1	H2 Energy & Trafigura
20	Whitelee Green Hydrogen	Scottish Power

NZHF CAPEX

22	Ballymena Hydrogen Project	Ballymena Hydrogen
23	Hydrogen Lowestoft	Conrad Energy
24	Knockshinnoch Green Hydrogen Hub	Falck Renewables
25	Lanarkshire Green Hydrogen	Octopus Hydrogen
26	MCRU Integrated Hydrogen Delivery for a Fuel Cell Van Fleet Pilot	Centrica

NZHF DEVEX

27	Didcot Green Hydrogen	RWE Generation
28	Green Hydrogen St Helens	Progressive Energy
29	Green Hydrogen Winnington and Middlewich	Progressive Energy
30	H2NorthEast	Kellas Midstream
31	Hynet Hydrogen Production Plant 2 (HPP2)	Vertex Hydrogen
33	Inverness Green Hydrogen Hub	Getech Group
34	Kintore Hydrogen	Statera Energy
35	Mannok Green Hydrogen Valley	Mannok Build
36	Port of Felixstowe Green Hydrogen Project	Scottish Power
37	Trecwn Green Hydrogen Valley	Statkraft UK



CCUS

38	bpH2Teesside	BP Exploration Operating Company
39	HyNet Hydrogen Production Plant 1 (HPP1)	Vertex Hydrogen

* The Agreeing an Offer stage consists of due diligence and value for money assessment. Being shortlisted does not guarantee progress to negotiations or award of support.







Birmingham Airport and ZeroAvia

Renewable Hydrogen Production for planes







Redcar

Neighbourhood sized trial 100% hydrogen heating



Wrightbus

World's first
hydrogen powered
double decker bus