Westwood Global Energy Group

Potential of the UKCS under different scenarios

OEUK – Summary report

Westwood Global Energy Group

June 2025

UKCS Outlook – Summary report

1. Summary
2. Forecast production and field CoP
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Information presented in report is extracted from the Westwood Energy consulting report delivered to OEUK in February 2025.

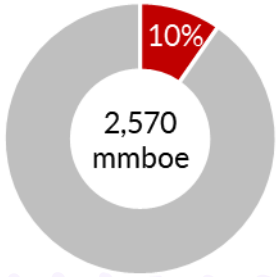
Summary

UKCS Outlook: Key Messages

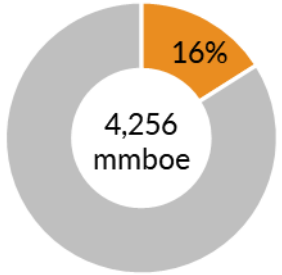
Significant resource potential remains in the UKCS, however, a shift in external conditions and investor sentiment is required for it to be tapped.

- Three key consultations in 2025 could shape the future of the industry.
- Based on current investment plans, Westwood estimates that there are c. 3.1 billion boe (bnboe) in remaining reserves in fields that are currently producing, under development or classed as near-term developments (plans progressed but not yet sanctioned). However, significant resource potential remains in undeveloped discoveries and prospects.
- Westwood estimates a total of c. 26.5 bnboe of potential reserves and resources in the UKCS. Of this, c. 13 bnboe is within 25 km of an existing production hub catchment area, and c. 19 bnboe within 50 km of a hub. However, much of this lies on unlicensed acreage and only a small proportion of this will be developed under current conditions.
- Westwood modelled 3 development/investment scenarios. Of the 26.5 bnboe of total potential reserves and resources in the UKCS, c. 10% could be recovered under the Low Case, 16% under the High Case and up to 28% under the 'No Constraints' Case. However, the latter would require a major shift in external conditions and investor sentiment.
- Different scenarios are reflective of the investment environment, not the subsurface opportunities. This influences production outlooks and recoverable reserves estimates, which have been revised downward in recent years, due to changes in sentiment. In 2019, the NSTA projected that 6.5 bnboe could be recovered from the UK North Sea between 2025 and 2050 but in 2024 this figure was reduced to 3.8 bnboe.

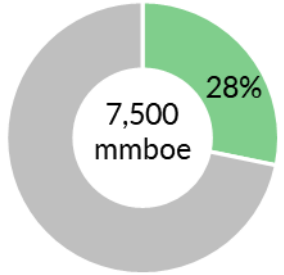
Low Case: assumes no future sanctions or E&A drilling, with near term developments left untapped and lower production performance in assets under development



High Case: accelerated but achievable developments from increased infield recovery, near term developments, commercial discoveries and some exploration success



No Constraints Case: assumes a major shift in external factors and investor sentiment to recover more from existing fields and untap more of the technical discoveries and prospectivity



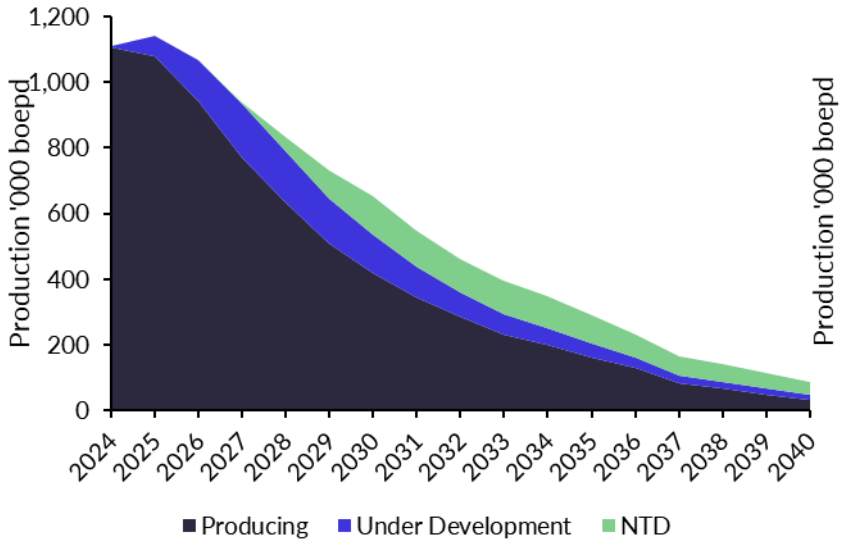
Source: Westwood Atlas

UKCS Outlook:
Forecast production and field CoP

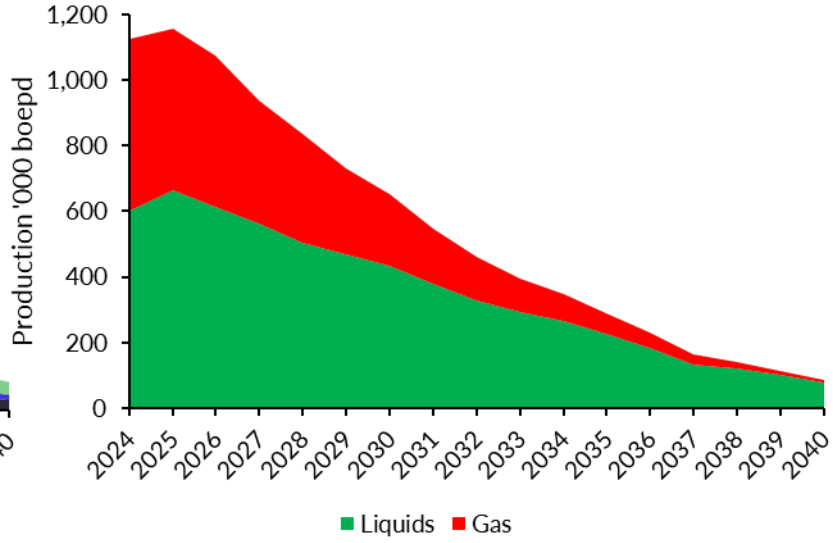
UKCS production forecast (base case)

Westwood forecasts production to rise by 3% in 2025, but this is more a result of project delays than an uptick in investment. Post-2026, production is expected to enter a steep decline as the impact of under-investment takes effect.

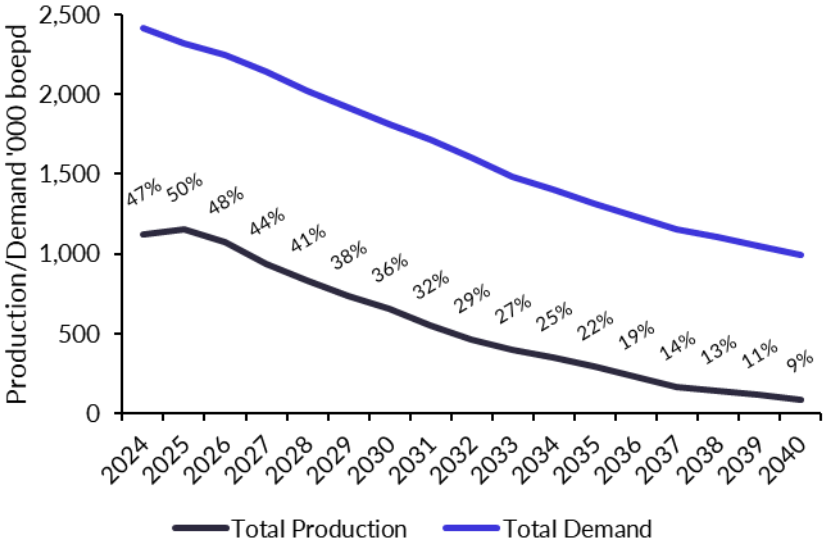
Forecast production by development status



Forecast liquids and gas production



Forecast production and UK oil & gas demand*



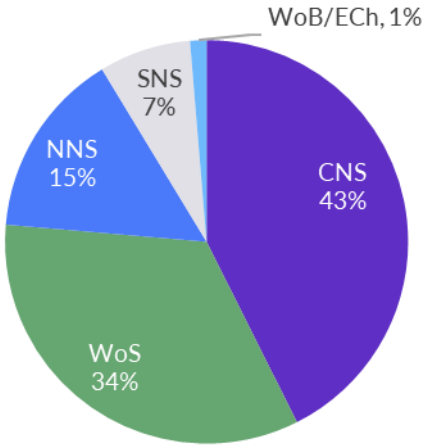
- Production in 2024 declined by 7% to 1.1 million boepd, down from 1.3 million boepd in 2023.
- Production is predicted to rise slightly in 2025 with full year production from Talbot and contributions following the start-up of Penguins, Affleck, (both onstream) Murlach, Victory and Teal West (expected onstream later in 2025).
- Oil accounted for 54% of production volumes in 2024 and is forecast to increase slightly to 57% in 2025 with increased liquids production from start-ups.
- Production is forecast to account for 50% of UK oil and gas demand in 2025.
    - Note: DESNZ's demand projection is consistent with the 2050 Net Zero delivery pathway (high innovation scenario for oil, high electrification scenario for gas). As such, should targets not be met, demand is likely to be higher than that shown.

Source: Westwood Atlas and DESNZ.
**DESNZ Net Zero Strategy delivery pathway (2022)* https://www.nstauthority.co.uk/media/dsdlwpga/nsta-march-2024-production-projections-plus-ccc-and-desnz-demand-projections.xlsx

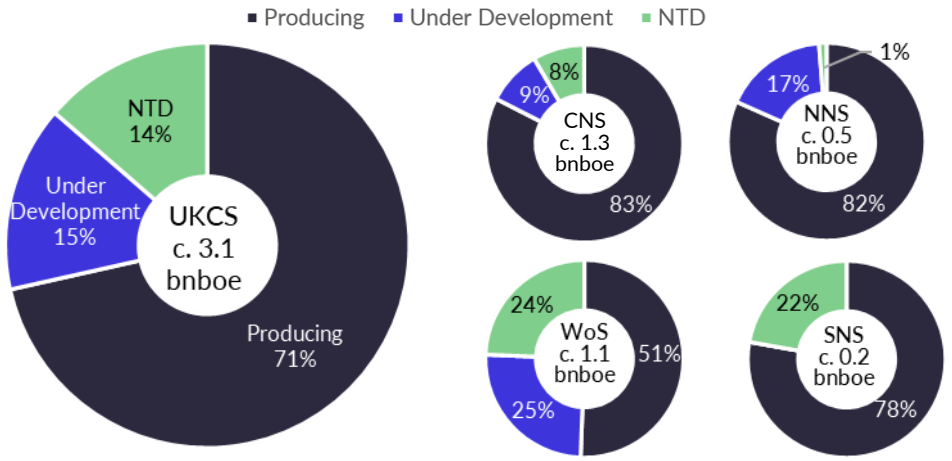
UKCS remaining reserves by area and hub (base case)

Westwood estimates that there are c. 3.1 billion boe in remaining reserves (including near term developments).

Remaining reserves by region



Remaining reserves by development status



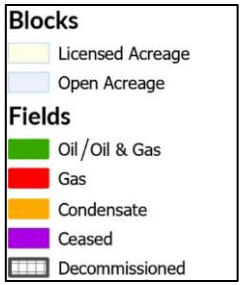
- Total reserves on the UKCS have fallen from c. 3.5 bnboe at 1 January 2024 to c. 3.1 bnboe at 1 January 2025, largely as a result of 2024 production.
- The West of Shetlands has a pipeline of future developments to contribute to long-term productivity of the region. The three largest hubs in the UK, Clair Area, Rosebank and Schiehallion Area, are in the West of Shetland region.
- The CNS has the most reserves, at c. 1.3 bnboe, but it has the lowest proportion of reserves in future developments.
- Aside from the Irish Sea and English Channel, the SNS is the only region with no fields currently under development. It also has the lowest remaining reserves at c. 0.2 bnboe (c. 1.4 tcf).

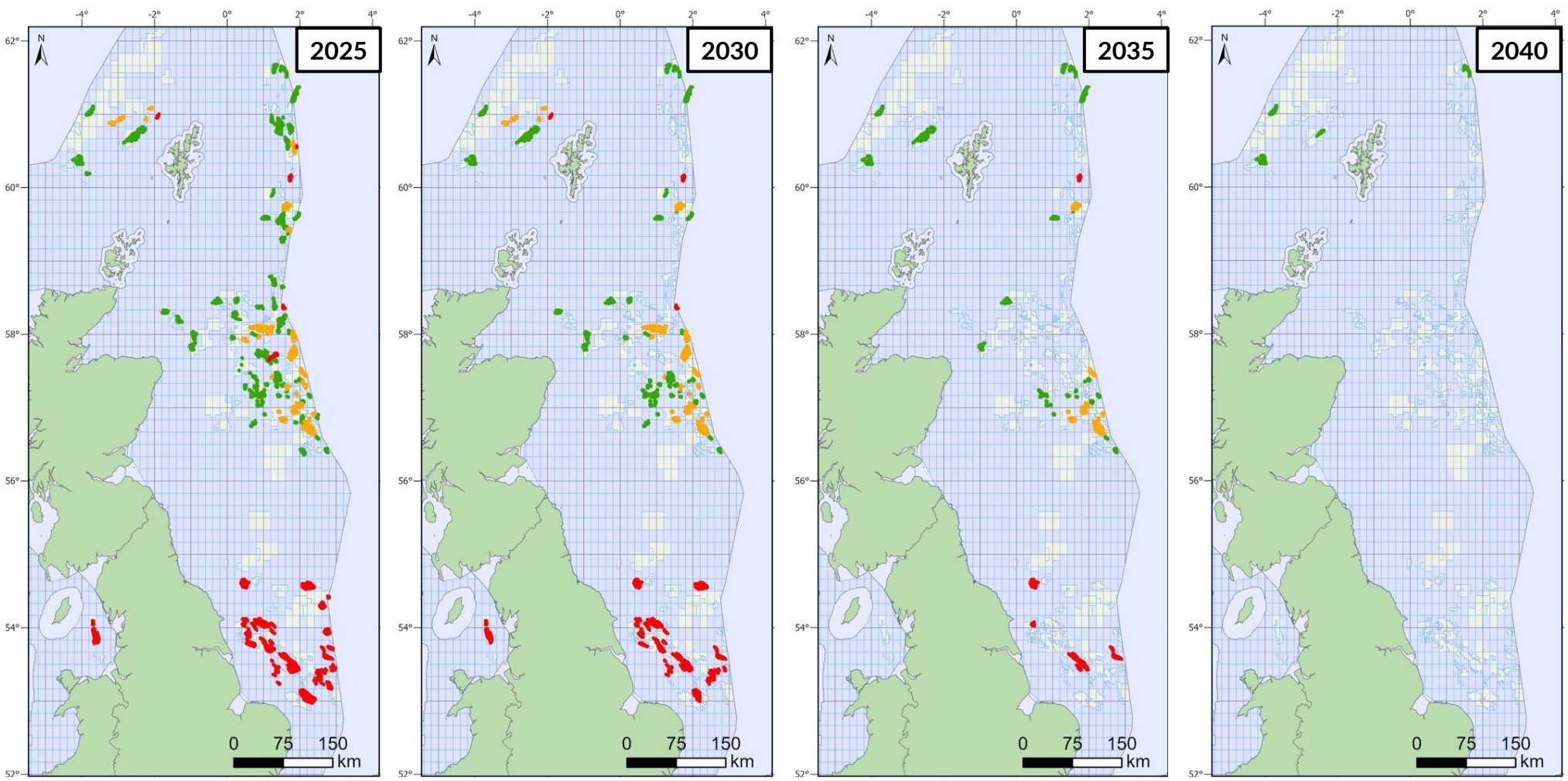
Remaining reserves at 1 January 2025.
Source: Westwood Atlas

UKCS field CoP - sensitivity analysis

67 hubs are currently producing or under development, which is expected to decrease to 20 by 2035, based on current firm investment plans. The next five years are crucial in maximising recovery from the high number of late-life hubs across the UK.

- The number of field and hub closures is on the rise - 27 fields ceased in 2024.
- CoP levels are expected to be sustained over the next 10 years.
  - 88 fields are expected to cease before 2030.
  - A further 82 are expected to cease before 2035.
- In 2025, c. US$1.5 billion is expected to be spent on decommissioning. Over the next 10 years, total abex is expected to exceed US$26 billion.





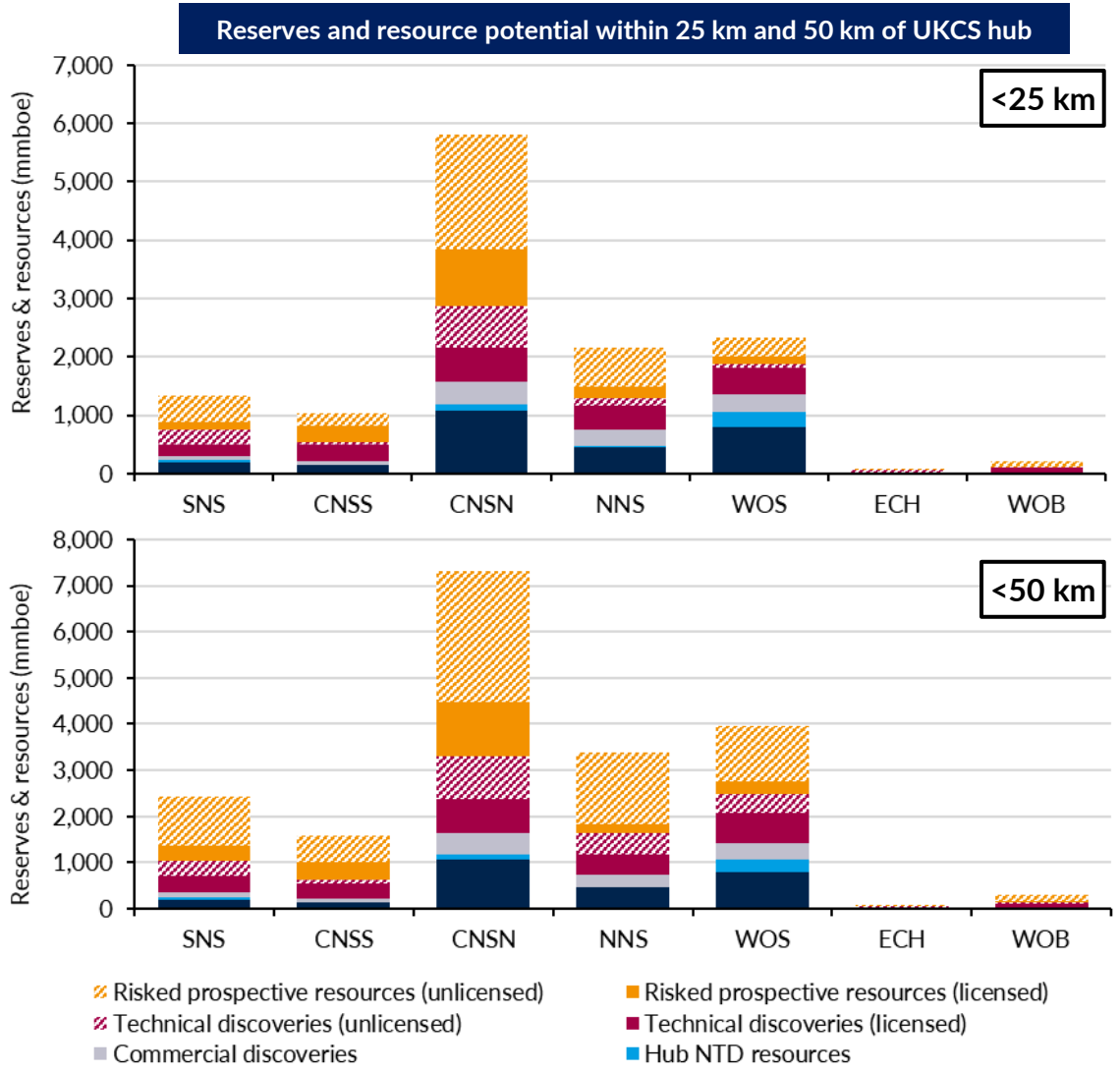
Source: Westwood Atlas

UKCS Outlook:
Resource potential and hub proximity

Significant resource remains in the UKCS subsurface

However, much of the UKCS resource potential lies on unlicensed acreage and only a small proportion of this will be developed under current conditions.

- **Westwood estimates that there is 26.5 bnboe of reserves, undeveloped discoveries and prospectivity on the UKCS, with:**
  - c. 13 bnboe of this potential lies within 25 km of an existing production hub.
  - c. 19 bnboe of this potential lies within 50 km of an existing production hub.
- **Within 25 km of a UKCS hub, there is**:
  - c. 1.1 bnboe in potentially commercial discoveries.
  - c. 3.3 bnboe in technical discoveries (38% unlicensed).
  - c. 5.5 bnboe in prospectivity (68% unlicensed).
- **Within 50 km of a UKCS hub, there is**:
  - c. 1.3 bnboe in potentially commercial discoveries.
  - c. 4.9 bnboe in technical discoveries (47% unlicensed).
  - c. 9.7 bnboe in prospectivity (76% unlicensed).
- When comparing a 50 km radius to 25 km, the total reserves and resource potential increases by c. 6 bnboe, but much of the increase is associated with technical discoveries and prospects on unlicensed acreage.



Note 1: Hub remaining reserves includes producing and under development fields
Note 2: A discovery must be licensed for Westwood to consider it potentially commercial

Source: Westwood Atlas

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Resource potential >50 km from a production hub

Although there is significant resource potential beyond 50 km from a production hub, much of this lies in frontier basins and is unlicensed.

Resource potential within 25 km, 25-50 km and beyond 50 km from a hub

	Hub	25km	50km	Total UKCS
Commercial discoveries (mmboe)	1,102	217	86	1,405
Technical discoveries - licensed (mmboe)	2,037	571	330	2,938
Technical discoveries - unlicensed (mmboe)	1,229	1,064	452	2,745
Risked prospective resources - licensed (mmboe)	1,720	597	667	2,984
Risked prospective resources - unlicensed (mmboe)	3,740	3,648	5,993	13,381
Total (mmboe)	9,828	6,097	7,528	23,453

- There is c. 7.5 bnboe of resource potential beyond 50 km of an existing production hub. This includes:
- Undeveloped discoveries: c. 870 mmboe in 79 discoveries.
    - Only 2 are considered potentially commercial (Pensacola and Pegasus West), that could be developed as a new standalone hub.
    - Over 50% of the technical resource is unlicensed.
- Risked prospectivity: c. 6.7 bnboe in 473 prospects. However, 85% of this is unlicensed and much of this lies in frontier basins such as the Rockall Trough.
    - 33rd Round awards in the WoS include licences in the 'Northern Gas Hub' where a number of companies are chasing large prospects to add to existing gas discoveries that are currently uncommercial.
    - The Permian Zechstein play in the northern part of the SNS and prospects in the Mid North Sea High also offer potential.

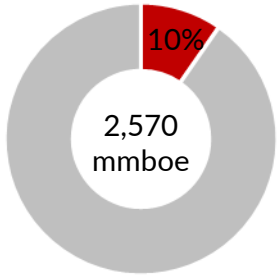
Source: Westwood Atlas

UKCS Outlook:
Production upside potential scenarios

UKCS resource and production upside potential: scenarios

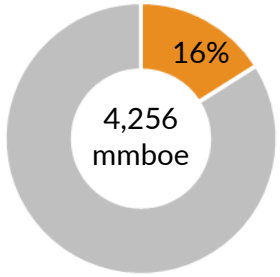
In this section, Westwood has looked at the potential reserves and resources under 2 different scenarios: Low and High Case. Estimated volumes have been provided and a forecast production profile has been modelled.

Of the 26.5 bnboe of potential reserves and resources in the UKCS (including resource outside hub catchment area), c. 10% could be recovered under the Low Case and 16% under the High Case.



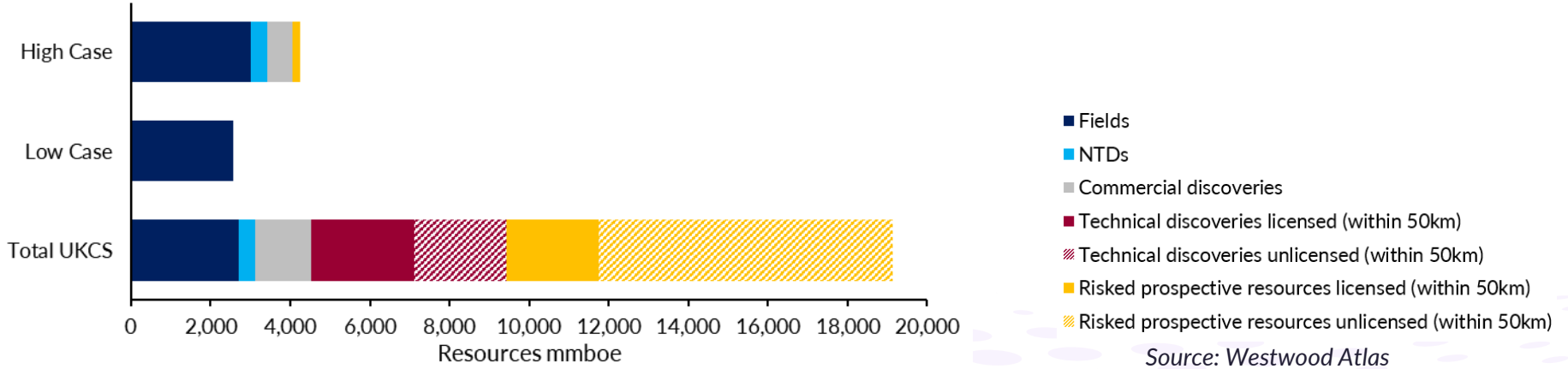
Low Case

- Westwood's Low Case production outlook assumes future sanctioning and E&A drilling is banned, resulting in no future developments and Westwood's near term developments would not be sanctioned. Remaining production is from fields already producing and projects currently under development.
- In the Low Case, Westwood has risked production performance of projects currently under development, as no production history is known for these projects.
- Under-investment to maintain infrastructure could also result in early hub closures that would see reserves even lower than modelled in the Low Case.



High Case

- Westwood's High Case production outlook is above what is expected given current regulatory and fiscal conditions and investor sentiment, however, is considered achievable if investor sentiment can be improved to levels seen previously in the UK.
- This has been modelled on a basin level using assumptions on average number of tie-backs per year, average discovered resources per year and project development lead times.
- The main constraint on resources developed is the number of developments per year. Further constraints to hub longevity, annual discovered resources and ability to commercialise technical discoveries are also a factor.



Source: Westwood Atlas

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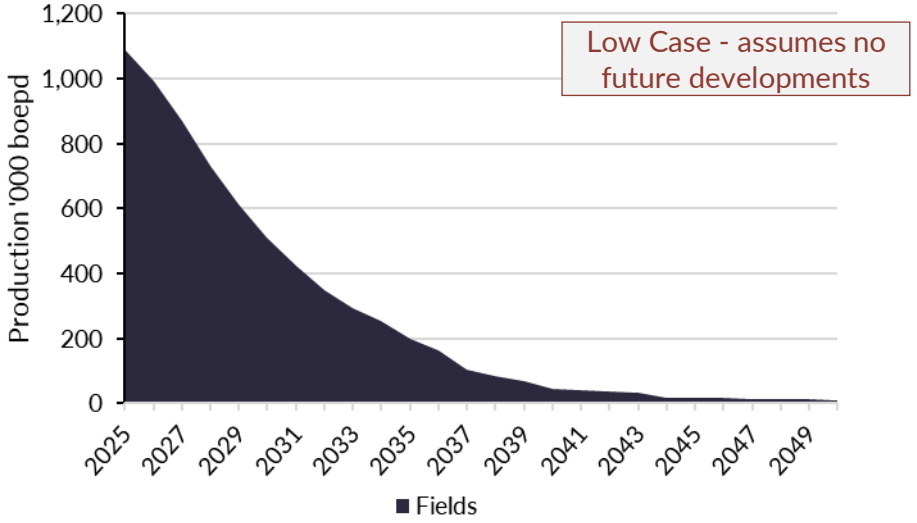
UKCS production upside potential: Low v High Case

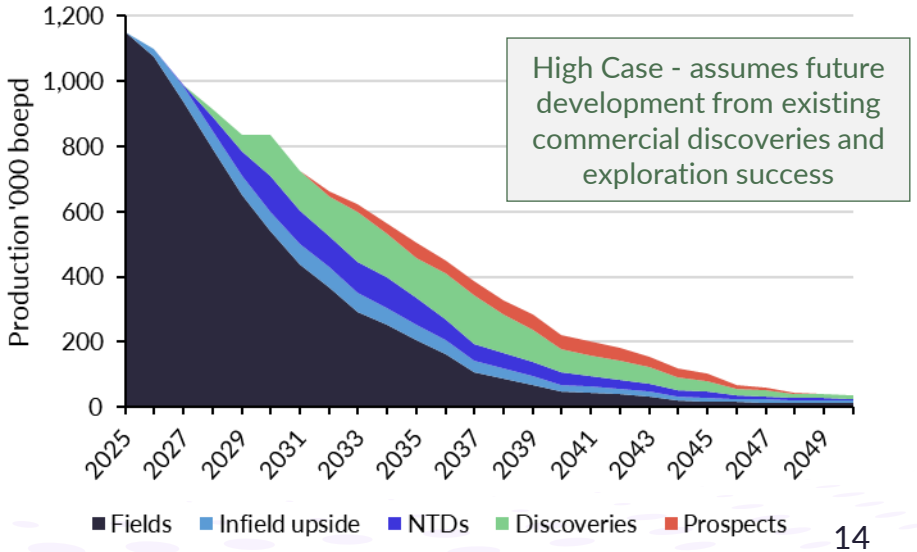
There is a difference of 1.7 billion boe between the Low and High Cases, which could be achieved through accelerated yet achievable developments.

		Remaining reserves/resources mmboe				
	Scenario	UKCS	WOS	NNS	CNS	SNS
High Case	Fields	2,710	799	470	1,220	185
	Infield Upside	298	*	*	*	*
	NTDs	402	257	6	88	51
	Discoveries	658	189	194	156	119
	Prospects	188	68	53	57	9
	Total	***4,256***	***1,313***	***722***	***1,522***	***365***
Low Case	Fields	2,570**	799	470	1,220	185
	Total	***2,570***	***799***	***470***	***1,220***	***185***
	Difference	**1,686**	**514**	**252**	**302**	**180**

- Westwood has modelled a potential upside of 1.7 billion boe, compared to the low case, which could be unlocked through accelerated, yet achievable development activity from increased infield recovery, commercialising undeveloped discoveries and exploration success.
- However, despite this upside, significant resources remain undeveloped. Due to restrictions of number of developments per year and hub longevity, some potentially commercial discoveries, all technical discoveries and most prospectivity are left undeveloped and would require a greater shift in industry and investor sentiment to unlock.

Potential impact of discoveries and prospects on UKCS production forecast





Source: Westwood Atlas

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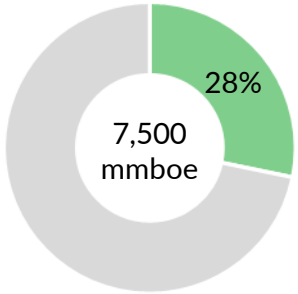
Note: The development of commercial discoveries and prospects modelled do not consider the electrification status of hubs and the requirements for electrification as per the NSTA's Emissions Reduction Action Plan.
**Infield upside only calculated at UKCS level.*
***Reduced reserves outlook in the Low Case is from modelling underperformance in fields currently under development. This is only presented at the UKCS level.*

UKCS resource upside potential: 'No Constraints' Case

Under a 'no constraints' scenario, the resource potential could be up to 7.5 bnboe, but this assumes a major shift in external conditions and investor sentiment to recover more from existing fields and untap more of the technical discoveries and prospectivity.

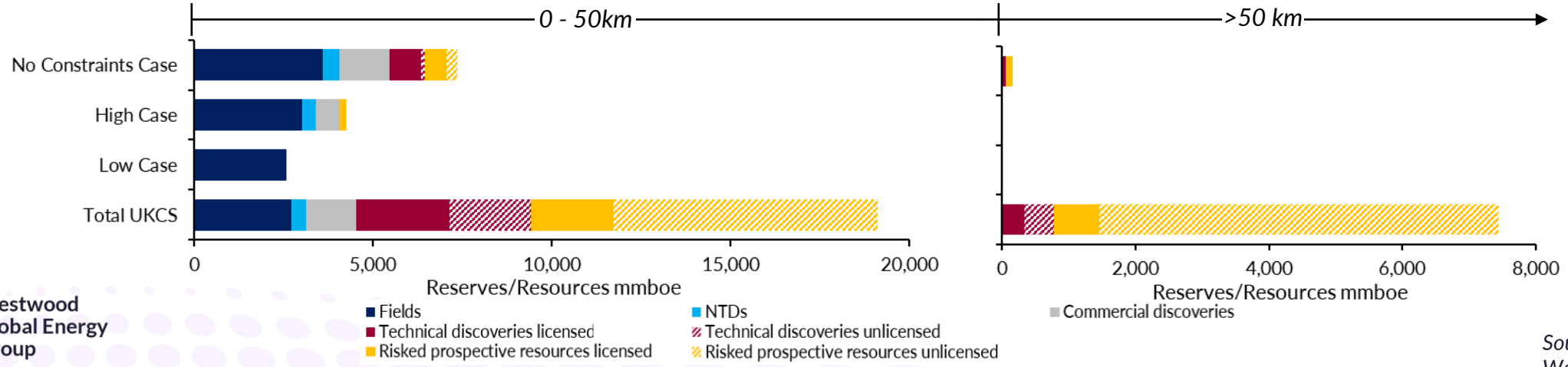


No Constraints Case

- The 'No Constraints' Case is considered to be beyond realistic assumptions given the current regulatory and fiscal conditions and investor sentiment. For this case to be realised, major industry change would be required.
- Potential volumetrics (but not production profiles) have been modelled on a UKCS level and include:
  - Increased infield recovery.
  - All commercial discoveries are developed.
  - Technical discoveries developed at rates shown in adjacent table.
  - Prospective resources discovered at a rate of 100 - 150 mmboe/year (as per highest rates in last 15 years), with an average 100 mmboe/year being developed for a period of 10 years.

		% of resource developed	
Proximity	Technical discovery classification	Licensed	Unlicensed
Within 50km of current hub	Technical - Size	10%	2%
	Technical - Pending Commercial Solution	50%	10%
	Technical - No Plans	50%	10%
	Technical - Awaiting Appraisal	25%	5%
	Technical - Reservoir Quality	10%	2%
	Technical - Hydrocarbon Type	0%	0%
	Technical - Other	0%	0%
Beyond 50km of current hub	Technical - Size	0%	0%
	Technical - No Plans	30%	0%
	Technical - Pending Commercial Solution	30%	0%
	Technical - Awaiting Appraisal	0%	0%
	Technical - Hydrocarbon Type	0%	0%

- If major changes are made to regulatory and fiscal restrictions, and in turn investor sentiment, Westwood models the reserves and resource potential could be up to 7.5 bnboe. This equates to 28% of total UKCS resources and represents an additional 3.2 bnboe when compared to the High Case.
- For this to be possible, regulatory constraints including uncertainty surrounding project sanction and lead times for assessing projects would have to be considerably reduced. Similarly, significant changes to the fiscal landscape surrounding the current tax regime and investment allowances would need to occur. These changes would have to come with assurances and certainty in order to improve investor sentiment sufficiently to encourage investment on this scale.



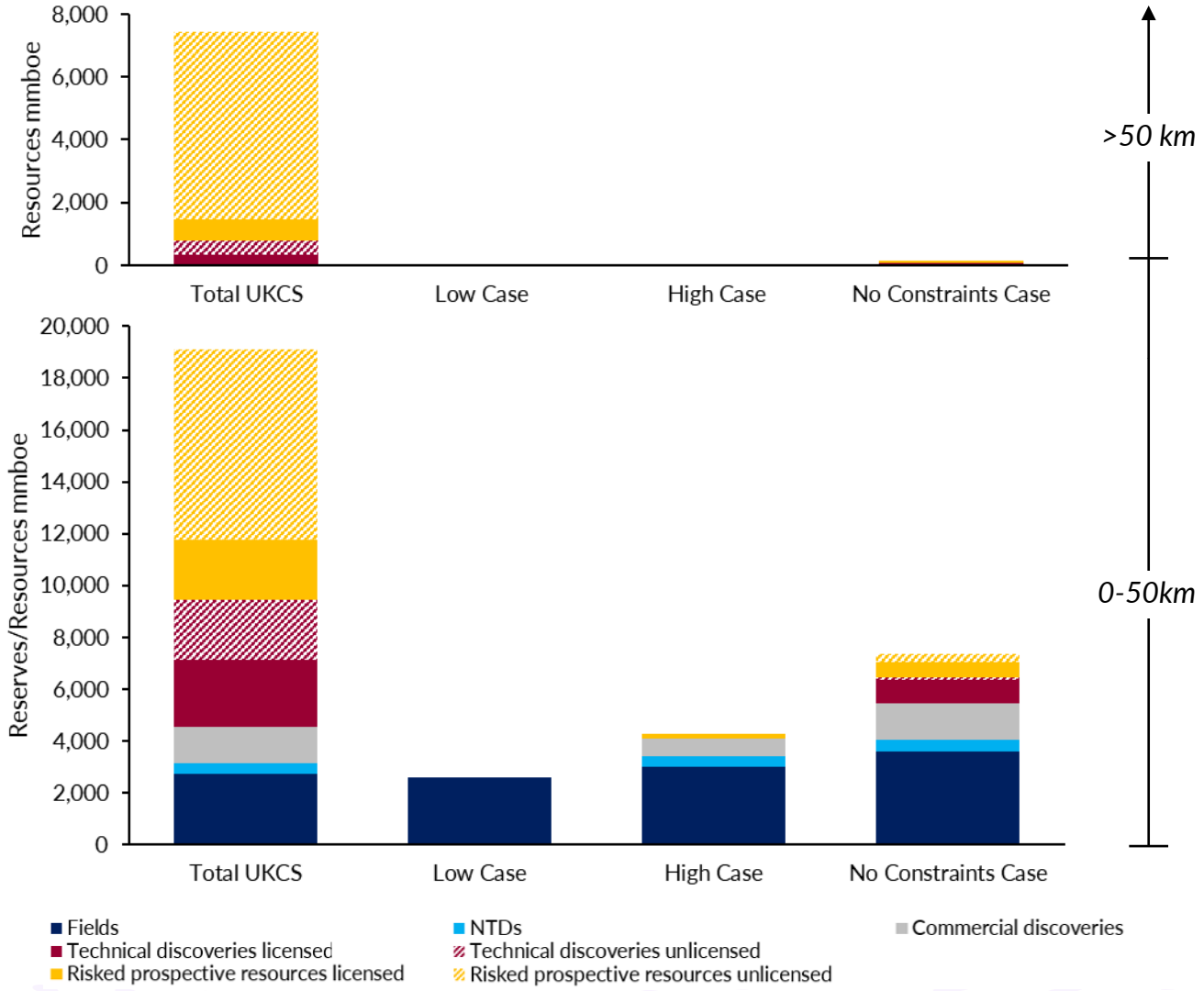
Note: Despite being >50 km from a current hub, Pensacola and Pegasus West commercial discoveries are presented along with other commercial discoveries in the 0 – 50 km range.

Source: Westwood Atlas

UKCS resource potential

Of the 26.5 bnboe of potential reserves and resources in the UKCS (including resource outside hub catchment area), c. 10% could be recovered under the Low Case, 16% under the High Case and up to 28% under the 'No Constraints' Case. However, the latter would require a major shift in external conditions and investor sentiment.

		Low Case		High Case		No Constraints Case	
Westwood's reserves and resources category	Total UKCS reserves/ resources	Reserves/ resources potential	% Recovered	Reserves/ resources potential	% Recovered	Reserves/ resources potential	% Recovered
Fields (producing and under development)	2,710*	2,570	95%	3,008	111%	3,600	133%
NTDs	402	0	0%	402	100%	445	111%
Commercial discoveries	1,405	0	0%	658	47%	1,405	100%
Technical discoveries licensed (within 50km)	2,608	0	0%	0	0%	900	35%
Technical discoveries unlicensed (within 50km)	2,293	0	0%	0	0%	100	4%
Risked prospective resources licensed (within 50km)	2,317	0	0%	188	8%	600	26%
Risked prospective resources unlicensed (within 50km)	7,388	0	0%	0	0%	300	4%
Technical discoveries licensed (beyond 50km)	330	0	0%	0	0%	50	15%
Technical discoveries unlicensed (beyond 50km)	452	0	0%	0	0%	0	0%
Risked prospective resources licensed (beyond 50km)	667	0	0%	0	0%	100	15%
Risked prospective resources unlicensed (beyond 50km)	5,993	0	0%	0	0%	0	0%
Total	26,565	2,570	10%	4,256	16%	7,500	28%



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*Total UKCS reserves in producing and under development fields is compared to Westwood's base case forecast, which only models firm infield development plans e.g. infill wells with a drilling application approved or workovers with a rig contract in place etc.

Source: Westwood Atlas

UKCS resource potential: Low, High and 'No Constraints' scenarios

Of the 26.5 bnboe of potential reserves and resources in the UKCS (including resource outside hub catchment area), c. 10% could be recovered under the Low Case, 16% under the High Case and up to 28% under the 'No Constraints' case. However, the latter would require a major shift in external conditions and investor sentiment.

		Low Case		High Case		No Constraints Case		
Westwood's reserves and resources category	Total UKCS reserves/ resources	Reserves/ resources potential	% Recovered	Reserves/ resources potential	% Recovered	Reserves/ resources potential	% Recovered	Assumptions
Fields (producing and under development)	2,710*	2,570	95%	3,008	111%	3,600	133%	Low: lack of investment and underperformance of fields currently under development results in reserves below Westwood's base model. High: in-field upside opportunities result in a lower production decline rate than in Westwood's base model. No Constraints: significantly higher investment, workovers and infill drilling result in increased reserves.
NTDs	402	0	0%	402	100%	445	111%	Low: with no future sanctions, near term developments are left untapped. High: all resources held in near term discoveries are produced. No Constraints: all resources held in near term discoveries are produced with increased long-term investment improving recovery.
Commercial discoveries	1,405	0	0%	658	47%	1,405	100%	Low: with no future sanctions, commercial discoveries are left untapped. High: Some commercial discoveries not developed due to constraints in number of tie-backs and some resources not produced due to hub closures. No Constraints: all resources held in commercial discoveries are produced.
Technical discoveries licensed (within 50km)	2,608	0	0%	0	0%	900	35%	Low: with no future sanctions, technical discoveries are left untapped. High: no technical discoveries are developed. It is assumed that a greater change in the industry is required to commercialise these opportunities. No Constraints: much improved investor sentiment means some technical discoveries are developed as commercial solutions are found.
Technical discoveries unlicensed (within 50km)	2,293	0	0%	0	0%	100	4%	Low: with no future sanctions, technical discoveries are left untapped. High: no technical discoveries are developed. It is assumed that a greater change in the industry is required to commercialise these opportunities. No Constraints: relicensing allows some of the less challenging, but currently unlicensed, technical discoveries to be commericalised.
Risked prospective resources licensed (within 50km)	2,317	0	0%	188	8%	600	26%	Low: with no future sanctions, it is assumed there will be no new E&A drilling. High: limited volume of prospective resource developed, but is constrained by annual discovered resources, number of tie-backs and hub CoPs. No Constraints: assumes increased E&A drilling and annual discovered resource (100 mmboe/year for next 10 years), majority on current licences
Risked prospective resources unlicensed (within 50km)	7,388	0	0%	0	0%	300	4%	Low: no new E&A drilling is conducted with no future sanctions permitted. High: given constraints in average annual discovered resources and number of tie-backs per year, no currently unlicensed prospects are developed. No Constraints: assumes increased E&A drilling and annual discovered resource (100 mmboe/year for next 10 years), some is currently unlicensed.
Technical discoveries licensed (beyond 50km)	330	0	0%	0	0%	50	15%	Low: no technical discoveries beyond 50km of current infrastructure are considered feasible for development. High: no technical discoveries beyond 50km of current infrastructure are considered feasible for development. No Constraints: some technical discoveries beyond 50km of current infrastructure are considered potentially feasible if investor sentiment improves.
Technical discoveries unlicensed (beyond 50km)	452	0	0%	0	0%	0	0%	Low: no technical discoveries beyond 50km of current infrastructure are considered feasible for development. High: no technical discoveries beyond 50km of current infrastructure are considered feasible for development. No Constraints: no technical discoveries beyond 50km of current infrastructure are considered feasible for development.
Risked prospective resources licensed (beyond 50km)	667	0	0%	0	0%	100	15%	Low: no prospective resources beyond 50km of current infrastructure are considered feasible for development. High: no prospective resources beyond 50km of current infrastructure are considered feasible for development. No Constraints: some prospectivity beyond 50km of current infrastructure may be commercialised but will likely require new hubs to be developed.
Risked prospective resources unlicensed (beyond 50km)	5,993	0	0%	0	0%	0	0%	Low: no prospective resources beyond 50km of current infrastructure are considered feasible for development. High: no prospective resources beyond 50km of current infrastructure are considered feasible for development. No Constraints: no prospective resources beyond 50km of current infrastructure are considered feasible for development.
Total	26,565	2,570	10%	4,256	16%	7,500	28%	

*Total UKCS reserves in producing and under development fields is compared to Westwood's base case forecast, which only models firm infield development plans e.g. infill wells with a drilling application approved or workovers with a rig contract in place etc.

Source: Westwood Atlas

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