

Model Area	What is the assumption about?	What modelling outcomes are driven by this assumption?	Pathway	What is assumed in each pathway? How does this drive the output?	Relative level 1-5 (low - high)	Why was this assumption made in this pathway?	How has this assumption changed since the last publication?
UKCS gas production supply ranges	Future exploration activity in the UKCS	UKCS production levels over the medium and long term	HT	In these net zero pathways, it is assumed that the new Energy Profits Levy (EPL) and ban on exploration licenses introduced by the current government will stay in place through the forecast. It is also assumed that the new EIA regulations will prevent any new production licenses being issued. This will result in a quicker reduction in production compared to FES 24. This drives down production quicker than would otherwise be the case.	2	Production regulation in the UKCS is being tightened for environmental reasons. It is assumed that this regulation will stay in place in a new zero scenario, driving down production faster than would otherwise be the case. Reaching net zero in 2050 will be made more difficult the higher UKCS gas production is by 2050	This has been updated to reflect the changes in policy in this area and how environmental impact assessments are conducted. New developments must now take in to account the impact of scope 3 emissions from their development and therefore the bar for approval of new projects has been increased significantly. Currently all potential new-build projects are paused while the operators re-work their fiscal business cases and await the OPRED (Offshore Petroleum Regulator for Environment and Decommissioning) guidance which is currently due in summer 2025.
			EE		2		
			HE	The mid case assumes that gas production from 'on production' is in line with NSTA analysis while production from 'approved for development' fields is inline with WM analysis. However, while justified for development fields are included (the timelines of these fields have taken in to account the uncertainty of changes to the EIA regulation changes), economically viable fields are not as they are considered sub-commercial (these are included in the high case however). Economically viable: these are fields that could be economic under our current costs and price projections, but significant uncertainty remains over the nature and timing of their development. The mid case assumes that there is yet to find but only from exploration on currently licensed acreage (inline with NSTA's assumptions)but with no further "Yet To Find".	4	It is expected that gas demand from blue hydrogen production will push up demand enough to result in government policy approving future production from known fields for security of supply reasons while UKCS production is likely to be the lowest carbon source of gas (after biomethane) once rigs in the North Sea are all electrified from 2030 onwards. This assumption is demand dependant and we may assume the 'low' scenario for UKCS production if demand is low enough	
			10YF	The 10YF case assumes that gas production from 'on production' is in line with NSTA analysis while production from 'approved for development' fields is inline with WM analysis. However, while justified for development fields are included (the timelines of these fields have taken in to account the uncertainty of changes to the EIA regulation changes), economically viable fields are not as they are considered sub-commercial (these are included in the high case however). Economically viable: these are fields that could be economic under our current costs and price projections, but significant uncertainty remains over the nature and timing of their development. The mid case assumes that there is yet to find but only from exploration on currently licensed acreage (inline with NSTA's assumptions)but with no further "Yet To Find".	4	These assumptions are inline with government policy on exploration and also takes in to account the uncertainty around the changes to EIA regulation - production licenses are assumed to be issued again in the future but only for the more economical fields.	

			FB	<p>It is assumed that production from currently producing fields is in line with NSTA projection and fields that have been approved for development are inline with WM forecasts.</p> <p>Its assumed that production from known discoveries that have not yet received approval is also inline with WM analysis. The timelines of these fields have taken in to account the uncertainty of changes to the EIA regulation changes. More clear guidance from the consultation on how scope 3 emissions should be treated in the EIA reports for new developments will be needed before further production licenses are awarded but this is only expected to be a short delay.</p> <p>With regards to production from exploration on currently licensed acreage, this is in line with the NSTA's data which in the March 2025 Production Projections dataset assumed that, other than the acreage that has already been licenced, no further exploration licenses are issued, inline with current</p>	5	<p>In Falling Behind, gas demand is expected to continue at quite a high rate. It is expected that growing import dependency will drive political backing for support for UKCS production in this case on security of supply and carbon intensity grounds, although the reduction of carbon emissions is not as big a concern as in the pathways.</p>	<p>Broadly the same assumptions as was used in FES 24 although the actual production numbers will have changed</p>
Norway gas production supply ranges	Proportion of Norwegian production destined for the UK	The proportional split of exported Norwegian production volumes between the UK and continental European markets	HT	<p>In terms of flows to the UK, we assume that the % of Norwegian flows from fields that can deliver to the UK or the continent is inline with the 9-year min (pre 2022 as this is when the Baltic pipe started up). Same is applied to YTF vols which does not include YTF vols in the Barents Sea, only from the Norwegian and North Sea regions</p>	2	<p>Low UK gas demand in these pathways is expected to result in a proportionally higher volume of Norwegian gas flowing to the EU and being insufficient to incentivise the construction of a pipeline between the Norwegian and Barents Sea regions.</p>	<p>We now use historic flow to guide the outlooks rather than data produced by a 3rd party. Assumptions around the Barents Sea are unchanged from last year. Otherwise assumptions are the same as FES 24</p>
			EE	<p>In terms of flows to the UK, we assume that the % of Norwegian flows from fields that can deliver to the UK or the continent is inline with the 9-year min (pre 2022 as this is when the Baltic pipe started up). Same is applied to YTF vols which does not include YTF vols in the Barents Sea, only from the Norwegian and North Sea regions</p>	2	<p>Low UK gas demand in these pathways is expected to result in a proportionally higher volume of Norwegian gas flowing to the EU and being insufficient to incentivise the construction of a pipeline between the Norwegian and Barents Sea regions.</p>	<p>We now use historic flow to guide the outlooks rather than data produced by a 3rd party. Assumptions around the Barents Sea are unchanged from last year. Otherwise assumptions are the same as FES 24</p>
			HE	<p>Includes YTF but only for Norwegian and North Sea regions with no access to volumes from fields in the Barents sea. In terms of the volumes that flow to the UK, it is assumed that the % of Norwegian flows from fields that can deliver to the UK or the continent is inline with the 9-year average (pre 2022 as this is when the Baltic pipe started up). Same is applied to YTF vols which does not include YTF vols in the Barents Sea</p>	3	<p>Higher gas demand in this pathway is expected to result in higher flows from Norway compared to HT and EE pathways. However, gas demand is still expected to fall fairly rapidly out to 2050 (only applicable for HE) and therefore gas demand is not expected to be sufficient to incentivise the construction of a pipeline between the Norwegian and Barents Sea regions. As this scenario is the most likely (business-as-usual) I have also included it for the 10YF</p>	<p>We now use historic flow to guide the outlooks rather than data produced by a 3rd party. Assumptions around the Barents Sea are unchanged from last year. Otherwise assumptions are the same as FES 24</p>
			10YF		3		

			FB	Assumes that production from the Barents Sea is included in the total Norwegian production volumes that can be exported to the UK or Europe. The construction of a pipeline to export gas from the Barents sea is assumed to be operational in 7-years resulting in higher YTF volumes. In terms of the volumes that flow to the UK, it assumes that the % of Norwegian flows from fields that can deliver to the UK or the continent is inline with the 9-year max (pre 2022 as this is when the Baltic pipe started up). Same is applied to YTF vols.	5	Gas demand is highest in this outlook, remaining robust throughout the forecast period, driving higher flexible Norwegian flows to the UK and (it is assumed) incentivising the construction of a pipeline between the Norwegian and Barents Sea regions.	We now use historic flow to guide the outlooks rather than data produced by a 3rd party. Assumptions around the Barents Sea are unchanged from last year. Otherwise assumptions are the same as FES 24
Norway gas production supply ranges	Export of Barents Sea Gas to the UK	The amount of Norwegian gas that is available to flow to the UK over the forecast period	HT	In all pathways, gas in the Barents sea, including Yet To Find volumes, will not be made available for export to the UK and will instead likely help support a growth in Norwegian LNG exports.	3	Low/medium gas demand in the pathways will not incentivise the investment needed to connect the Barents Sea with the southern pipeline system, which would allow for export of Barents Sea gas to the UK.	There are no changes to this assumption.
			EE		3		
			HE		3		
			10YF		3		
			FB		5		
Shale gas supply ranges	UK shale gas production	The amount of shale gas produced	HT	Both in the pathways and Falling Behind, we assume that there is no shale gas production throughout the forecast period.	1	This assumption was made in line with current policy, which is not expected to change in the future based on stakeholder feedback and public mood.	There are no changes to this assumption.
		EE	1				
		HE	1				
		10YF	1				
		FB	1				
LNG gas supply ranges	The maximum level of LNG that can be imported to the UK out to 2050	The range of LNG import potential	HT	In all pathways and Falling Behind, we assume that the global LNG market is large and flexible enough to fulfil the UK's LNG import requirements. This has come from a good understanding of the nature of LNG contracts and future global LNG production. The UK market's buying power, along with a lack of ability to fuel switch, especially in the short-term, has led to the assumption that the UK will be able to secure sufficient LNG volumes in all possible outcomes. Therefore, it is the UK's regas capacity that will limit the maximum volume of LNG that can be imported per year. Import capacity at is in line with NGT's reported long-term monthly release obligations	4	Not pathway-specific. This assumption has come from a good understanding of the nature of LNG contracts and future global LNG production providing us with confidence that available LNG volumes to the UK will always exceed import capacity if required in all pathways	Import capacity is now aligned to NGT's reported long-term monthly release obligations rather than reported name plate capacity at the terminals due changes in planned expansions of NTS capacity in South Wales and SE England since FES 24
			EE		4		
			HE		4		
			10YF		4		
			FB		4		
	The minimum		HT	In all pathways and Falling Behind, we assume the South Hook and Isle of Grain terminals have a constant minimum send out to the NTS of about 8mcm/day (2.9 bcma) total.	3		
			EE		3		
			HE		3		

LNG gas supply ranges	level of LNG that can be imported to the UK out to 2050	The range of LNG import potential	10YF FB	<p>*This is because boil-off gas from its storage tanks is not consumed on site or locally, so it has to be sent to NTS.</p> <p>*Because it is unlikely that either terminal would allow for stocks to get to a point at which the terminal would not produce boil-off volumes, it is assumed that 8 Mcm/d is the minimum daily flow of LNG to the UK NTS.</p>	3 3	Not pathway-specific. This assumption means that LNG imports have to be at least 8 Mcm/d for the whole forecast period. Boil off calculated on historic	In FES 2024, the min boil-off from Isle of Garin was assumed to be 5 Mcm/d but due to access to better data I now assume boil off is 3Mcm/d
Scenario creation annual	The supply of LNG and continental imports and the split between the two	The relative amount of LNG imports and continental imports	HT EE HE 10YF FB	<p>In all pathways and Falling Behind, due to the difficulties in establishing the amount of LNG imports versus imports from the continent to the UK via the interconnectors, LNG and continental imports have been combined into one data item, which we're calling Generic Imports. *For the purposes of our pathways, this data item will consist of LNG and continental imports only. *Minimum technical flows from each supply source are not be included in the 'generic imports' category. For example, the flows from the UK's regas terminals must be at least 8 Mcm/d we have a category for LNG, but this only contains this minimum flow out to 2050.</p>	3 3 3 3 3	Not pathway or FB- specific. Driven by feedback from NGT.	There are no changes to this assumption.
Scenario creation annual	Merit order of gas supply sources s to the UK	The proportion of gas from the UKCS and Norway in the gas mix.	HT EE HE 10YF FB	<p>In all pathways, the 10YF, and Falling Behind supply from the UKCS, domestic biomethane and Norway is considered the lowest cost and least carbon intensive source of natural gas and therefore will be the last source of supply to be 'turned off' once demand reaches a sufficiently low level. The UKCS will be the last source of gas supply if demand gets to a low enough level that supply from UKCS+Norway+biomethane exceeds demand. The reason for this being is that it is low cost and does not have another other markets to flow to. However, such a situation is unlikely. Generic imports are considered the marginal source of gas supply to the UK.</p>	3 3 3 3 3	Not pathway or Counterfactual-specific. Merit order based on known market dynamics of GB gas market	There are no changes to this assumption.
Continental gas supply ranges	Supply of Russian gas to Northwest Europe	The maximum amount of gas that can be imported to the UK via the two continental interconnectors	HT EE HE 10YF FB	<p>Russian flows to Northwest Europe started to decline in 2021; a suspected sabotage attack in late September 2022 rendered the Nord Stream system unusable, halting all Russian piped imports to Northwest Europe. In all pathways it is assumed that no Russian piped gas is sent to NW Europe in the future</p>	1 1 1 1 1	In all pathways and Falling Behind, it is assumed that Northwest European markets will keep Russian gas out of their energy mix (in line with current policy). This has little impact on the forecast as the EU has largely replaced Russian piped gas with LNG imports and now has a large LNG import capacity.	There are no changes to this assumption.
Continental gas supply ranges	Supply of LNG to Northwest Europe	The maximum amount of gas that can be imported to the	HT EE HE 10YF	<p>The potential flow of LNG to Northwest Europe is very high and it is assumed that it will remain so. In the wake of the cessation of Russian flows to Germany in 2022, several large LNG regas terminals were sanctioned in Germany, France and the Netherlands. This jump in regas capacity has allowed for a large increase in LNG imports as a replacement</p>	3 3 3 3	In all pathways and Falling Behind, it is assumed that Northwest European markets will keep Russian gas out of their energy mix. This assumption is in line with current policy and NW European	There are no changes to this assumption.

gas supply ranges	Northwest Europe	imported to the UK via the two continental interconnectors	FB	allowed for a large increase in LNG imports as a replacement to Russian gas flows to the region. There is not an expectation that regas capacity in Northwest Europe will fall back to levels seen before 2022 although total capacity could fall in the long-term as FSRU charters end in markets like Germany	3	governments have shown no sign that they wish to start up flows of Russian gas. There are numerous factors which make the start up of Russian gas flows to NW Europe very unlikely outlined by the OIES	There are no changes to this assumption.
Continental gas supply ranges	Gas supply from Northwest Europe	The maximum amount of gas that can be imported to the UK via the two continental interconnectors	HT	It is assumed (based on market level supply-demand modelling and analysis) that the potential supply of gas from NW Europe to the UK will be larger on than the combined import capacity of the IUK and BBL interconnectors on an annual basis	3	Not pathway or FB-specific. No reason to believe the volumes available would be different between the scenarios	There are no changes to this assumption.
			EE		3		
			HE		3		
			10YF		3		
			FB		3		
Continental gas supply ranges	Gas supply from Northwest Europe	The capacity of the BBL.	HT	The import capacity of the BBL interconnector pipeline has reduced compared to FES 24. This is due BBLC reducing the technical firm capacity on the BBL to 21.6 Mcm/d in December 2024 from 44.5 Mcm/d in last years FES. This was done in response to a sustained fall in demand for gas flows from the Netherlands to the UK and electricity grid congestion issues due to recent policy changes made by the network operator in the Netherlands. The BBLC have stated that it is very likely the reduction of BBLC's forward flow capacity (NL->GB) remains like this in the foreseeable future and this is supported by their published long-term technical availability outlook.	2	Not pathway or FB-specific. No reason to believe at this point that BBL capacity would increase in a certain scenario as import demand does not require the additional capacity	New assumption on BBL capacity (reduction compared to FES24)
			EE		2		
			HE		2		
			10YF		2		
			FB		2		

<p style="text-align: center;">HT</p>	<p>The HT scenario sees a ramp up in available feedstock usage in biomethane production as production capacity increases. As with the other net zero pathways, production is driven by the need to meet interim emissions targets. It is assumed in this pathway that there is greater availability of bio feedstocks than in the CCC's CB6 outlook, which allows for this high level of biomethane production while ensuring there is enough feedstock to satisfy bioenergy demand in all other sectors. This assumption is supported by data from a study NESO commissioned on sustainable feedstock availability and biomethane production potential carried out by Alder bioinsights.</p> <p>In this scenario we have also assumed that the issues related to capacity limitations on the distribution system which has in the past led to biomethane plants having to halt injection for periods of time will be solved in the near term and that the government continues to provide support for biomethane production after the current support scheme, the green gas support scheme, ends in 2028.</p>	<p style="text-align: center;">4</p>	<p>Gas will make up a larger proportion of the overall energy mix in this pathway compared to EE and HE while still meeting net zero, therefore there is a focus on decarbonising the gas supply through a larger contribution of biomethane and meet interim emissions targets. Hydrogen demand is concentrated in industrial clusters, allowing distribution system to continue to flow methane.</p>	<p>Total biomethane production is assumed to be higher than the high case in FES 24 based on studies released since FES 24 and stakeholder feedback</p>
<p style="text-align: center;">EE</p>	<p>In this scenario we have assumed that there is no support scheme that replaces the Green Gas Support scheme post 2028. Production in the short term is driven by the need to meet interim emissions targets. This results in a small increase in production out to 2030 and then a gradual decline in biomethane production over the next 20 years. Due to high electrification expected in this pathway we do not expect funding or policy to favour biomethane production while biomethane is not required long-term to meet emissions targets.</p>	<p style="text-align: center;">1</p>	<p>Electric Engagement focuses on the electrification of the UK's energy system with a move away from gas and meet interim emissions targets through this route. Biomethane production, therefore, would be unlikely to receive significant support from the Government.</p>	<p>No major changes in outlook</p>

Green gas supply ranges	Production of biomethane that is injected in to the grid	Production of biomethane that is injected in to the grid	HE	We assume in HE that there is a focus on investment in H2 and the move away from methane. H2 is assumed to be available by 2032 for home heating leading to a spread in H2 networks and wide spread conversion of the gas system to the H2 system by the mid-2040s limiting space for biomethane development. However, the requirement for emissions reduction to meet interim targets drives up biomethane production. The assumption is that most biomethane plants will be connected to the transmission network in the future as the Dx network is converted to h2. It is assumed in this scenario that there is greater availability of bio feedstocks than in the CCC's CB6 outlook, which allows for this high level of biomethane production while ensuring there is enough feedstock to satisfy bioenergy demand in all other sectors. This assumption is supported by data from a study NESO commissioned on sustainable feedstock availability and biomethane production potential carried out by Alder bioinsights.	3	The focus in this pathway is on decarbonising the gas supply through a larger contribution of hydrogen in meeting interim emissions targets. In this pathway, hydrogen demand becomes wide spread starting from 2032, including in domestic space heating which requires a conversion of distribution systems to hydrogen from methane, limiting biomethane's route to market. However, the need to reduce emissions drives up biomethane production in this outlook.	Outlook is higher due to requirement to meet emission targets
			10YF	The 10YF assumes a similar trajectory as the FB until the point when the GGSS runs out. After this we assume a support scheme will replace the GGSS and will offer better incentives than the GGSS allowing for an increase in production rate	3	We are unlikely to see a large up surge in growth as we see HT until the GGSS runs out in the late 2020s after which we expect a new support scheme to drive higher growth	N/A New outlook for FES 25
			FB	The FB outlook is driven the assumption that growth in biomethane production capacity seen in recent years will continue through to 2050. The capacity in 2030 is equal to the capacity of current biomethane plants at full capacity + plants which are connecting to the grid + biogas plants which are assumed to come to the end of their contracted period and are assumed to convert to biomethane. We also assume that there are no limitations on biomethane production capacity due to grid conversion or decommissioning, that capacity issues on the distribution system are overcome in the short term and that the GGSS supports plants which convert to biomethane from biogas. It is assumed in this scenario that there is greater availability of bio feedstocks than in the CCC's CB6 outlook	2	In Falling Behind, green gas is unlikely to receive increased levels of support from the Government as investment in low carbon energy production is not a priority but continued support, greater feedstock availability and reverse compression allows for a steady increase in production.	Total biomethane production is assumed to be higher than the FB in FES 24 based on studies released since FES 24 and stakeholder feedback
LNG gas	Future capacity	Peak LNG flows	HT EE HE 10YF	It is assumed that both the South Hook LNG terminal and the Isle of Grain LNG terminal will be expanded in the medium term (in terms of regas capacity). However, due to capacity	1 1 1 1	This is an internal assumption made in	Previously it was assumed that as long as expansions had received FID they would go ahead and NTS capacity would be

supply ranges	growth at LNG terminals	for GSA and nominal flows for FES	FB	restrictions on the NTS, the actual amount each terminal can deliver at peak will be lower than the total regasification capacity. This means South Hook in effect will not increase in delivery capacity and for peak flows and the Isle of Grain's capacity will only expand by 3 Mcm/d.	1	NGT and therefore NESO assumption has to align. Backed up by conversations with Isle of Grain and South Hook.	expanded in order to cater for this based on PARCAs in place last year and therefore the full expanded capacity would be included in the forecast be included in the FES outlook
Continental gas supply ranges	Gas supply from Northwest Europe	The minimum amount of gas that can be imported to the UK via the two	HT	Based on historic data, it is assumed that the minimum annual import of gas from the EU to the UK is zero	2	Not pathway or FB-specific. Based on historic flows observed	There are no changes to this assumption.
			EE		2		
			HE		2		
			10YF		2		
			FB		2		
Continental gas supply ranges	Biomethane production in Northwest Europe	The maximum amount of gas that can be imported to the UK via the two	HT	In all pathways and Falling Behind, the amount of biomethane produced in each Northwest European market is based on ENTSOG's 2024 TYNDP report.	3	Not pathway or FB-specific.	Same source as last update, just a more recent report.
			EE		3		
			HE		3		
			10YF		3		
			FB		3		
Continental gas supply ranges	Indigenous production in Northwest Europe	The maximum amount of gas that can be imported to the UK via the two	HT	In all pathways and Falling Behind, the amount of gas produced domestically in each Northwest European market is based on Wood Mackenzie's Global Gas: Europe regional market report in November 2024	3	Not pathway or FB-specific.	Same report as last year but an update version
			EE		3		
			HE		3		
			10YF		3		
			FB		3		