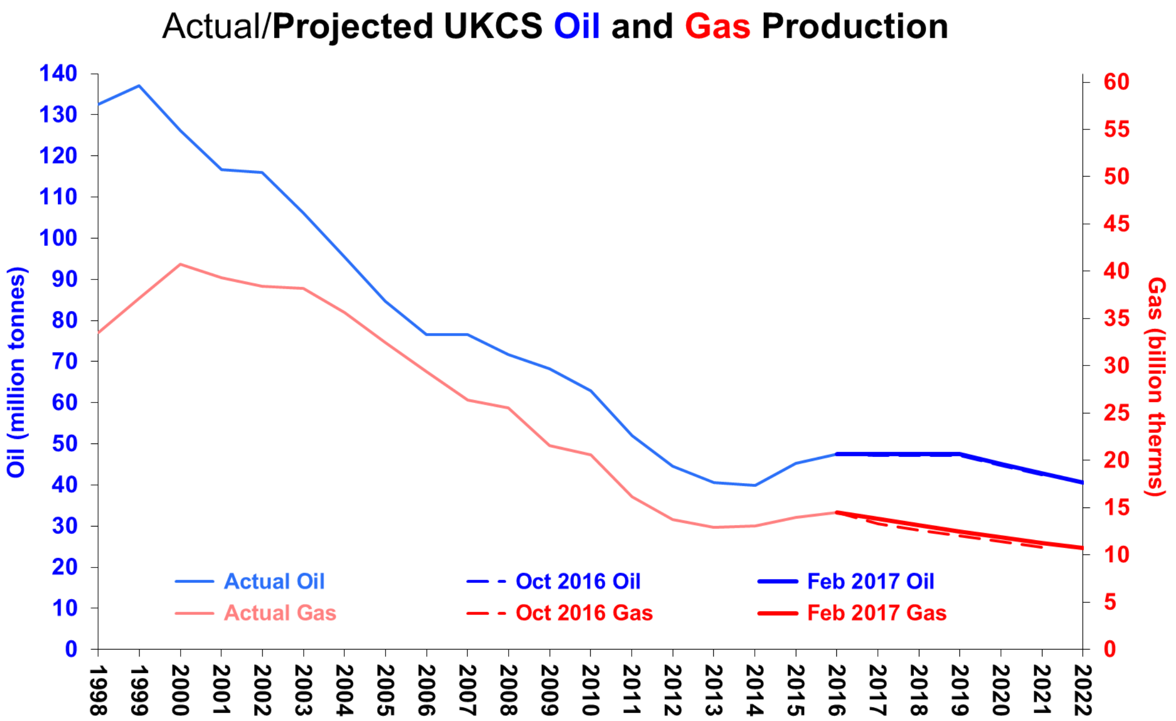
UKCS Oil and Gas Production Projections

The charts and tables below show the OGA's latest projections of UK Continental Shelf (UKCS) crude oil, natural gas liquid (NGL) and natural gas production for the period 2017 to 2022. The projections for gas relate to net UKCS production available for sale.

The current (February 2017) projections are based on detailed field-by-field data provided to the OGA by the current operators of each field in early 2017. We have applied very significant negative contingencies to the aggregate figures. The extent of these contingencies reflect past experience of forecasting deviations; historically, industry forecasts have tended to over-predict production significantly in the short and medium term, reflecting asymmetric upside and downside risks. The contingencies also include a small notional allowance for production from recently discovered fields awaiting appraisal and as-yet-undiscovered fields that might be found and brought into production in this timeframe.

While central projections of oil and gas production are shown in the chart, the table on page 3 illustrates a (wide) range of possible outcomes because the future rate of production is dependent on a number of different factors including the level of investment and the success of further exploration. Operators continue to find it difficult to predict production accurately as older fields mature and their reliability reduces. A significant share of future oil and gas production is expected to come from new fields and major projects in existing fields compounding the difficulty of making accurate forecasts given the risks of project slippage and uncertain start-up profiles. **The central projections are therefore our best estimates rather than a definitive prediction of future production of oil and gas from the UKCS.**

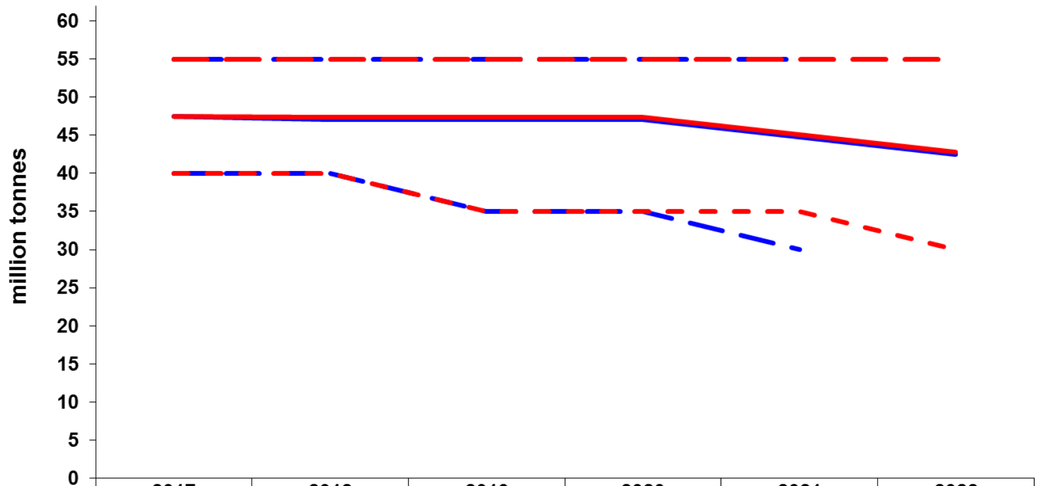
The chart below shows actual production levels in recent years and our current and previous (October 2016) projections; the colour-coded scales are different for oil (left-hand Y-axis) and gas (right-hand Y-axis) while the actual levels of oil and gas production are shown in lighter shades than the projected levels.



Production of both oil and gas during late 2016 was slightly higher than expected in October. The projections for oil and gas have been revised upwards reflecting this and the continuing robustness of industry forecasts for later years. After 2022, oil and gas production are both assumed to decline at 5% a year as illustrated in the table on page 4 below.

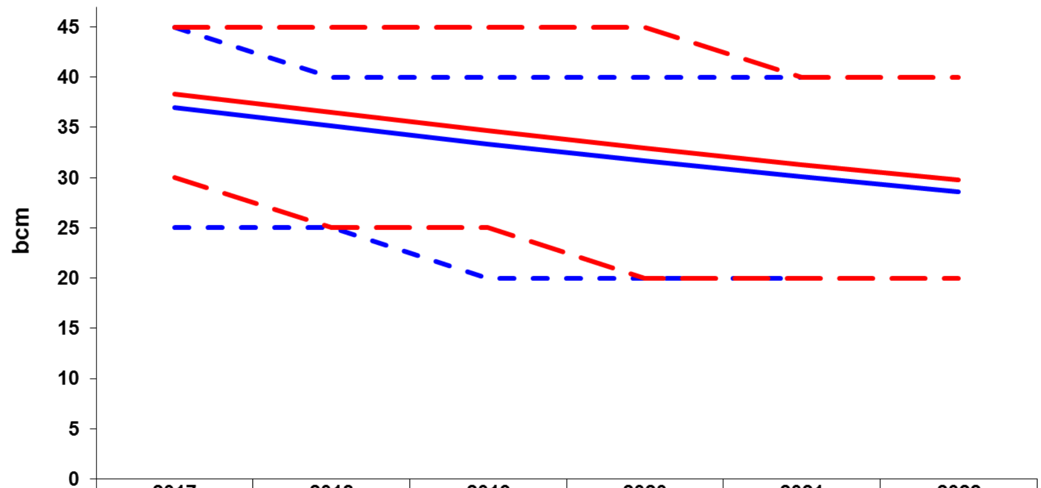
The charts below compare the current and previous central projections with (as dashed lines) the ranges published here (on page 3) and previously.

Comparison of Oil Production Projections



	2017	2018	2019	2020	2021	2022
Oct 2016 - High	55	55	55	55	55	
Oct 2016	47.4	47.1	47.1	47.1	44.7	42.5
Oct 2016 - Low	40	40	35	35	30	
Feb 2017 - High	55	55	55	55	55	55
Feb 2017	47.4	47.4	47.4	47.4	45.0	42.8
Feb 2017 - Low	40	40	35	35	35	30

Comparison of Gas Production Projections



	2017	2018	2019	2020	2021	2022
Oct 2016 - High	45	40	40	40	40	
Oct 2016	37.0	35.1	33.4	31.7	30.1	28.6
Oct 2016 - Low	25	25	20	20	20	
Feb 2017 - High	45	45	45	45	40	40
Feb 2017	38.4	36.5	34.7	33.0	31.3	29.7
Feb 2017 - Low	30	25	25	20	20	20

Indicative Ranges of Production Projections

a) Oil (including NGLs)			
	million tonnes		
2017	40	-	55
2018	40	-	55
2019	35	-	55
2020	35	-	55
2021	35	-	55
2022	30	-	55

b) Natural Gas Liquids (NGLs)			
	million tonnes		
2017	2.8	-	3.5
2018	2.7	-	3.5
2019	2.7	-	3.5
2020	2.7	-	3.5
2021	2.6	-	3.3
2022	2.5	-	3.2

c) Gas			
	billion cubic metres		
2017	30	-	45
2018	25	-	45
2019	25	-	45
2020	20	-	45
2021	20	-	40
2022	20	-	40

a) Production of oil (including NGLs) in 2016 was 47.4 million tonnes
b) Production of NGLs in 2016 was 3.1 million tonnes
c) Net production of gas in 2016 was c38.4 bcm

Mike Earp

Oil and Gas Authority (OGA)
tel +44 (0)3000 671604
e-mail Mike.Earp@ogauthority.co.uk
February 2017

UK Oil and Net Gas Production and Demand (all level figures in million tonnes of oil equivalent)

	Oil Production	Oil Demand	Net Oil Exports/ (Imports)	Oil exports as per cent of demand	Oil import dependency	Net Gas Production	Net Gas Demand	Net Gas Exports/ (Imports)	Gas exports as per cent of demand	Gas import dependency	Oil & Net Gas Production	Oil & Net Gas Demand	Net Oil & Gas Exports/ (Imports)	Oil & Gas exports as per cent of demand	Oil & Gas import dependency	
1998	145	91	54	60%		85	82	2	3%		230	173	57	33%		1998
1999	150	90	61	68%		94	88	6	6%		244	178	66	37%		1999
2000	138	89	49	55%		103	91	12	13%		241	180	61	34%		2000
2001	128	88	40	46%		99	90	10	11%		227	177	50	28%		2001
2002	127	87	40	47%		97	88	9	10%		224	175	49	28%		2002
2003	116	87	29	34%		96	89	8	9%		213	176	37	21%		2003
2004	105	89	15	17%		90	91	(1)		1%	194	180	14	8%		2004
2005	93	92	1	1%		82	89	(7)		8%	175	180	(5)		3%	2005
2006	84	91	(7)		7%	74	84	(10)		12%	158	175	(17)		10%	2006
2007	84	88	(4)		5%	67	86	(19)		22%	151	173	(23)		13%	2007
2008	79	86	(8)		9%	64	89	(24)		27%	143	175	(32)		18%	2008
2009	75	83	(8)		10%	54	82	(27)		33%	129	164	(35)		21%	2009
2010	69	81	(12)		15%	52	89	(37)		42%	121	170	(49)		29%	2010
2011	57	79	(22)		28%	41	74	(33)		45%	98	153	(55)		36%	2011
2012	49	77	(28)		37%	35	70	(35)		50%	84	147	(63)		43%	2012
2013	44	76	(31)		41%	33	69	(37)		53%	77	145	(68)		47%	2013
2014	44	75	(32)		42%	33	63	(30)		48%	77	138	(62)		45%	2014
2015	50	77	(27)		36%	35	64	(29)		45%	85	141	(56)		40%	2015
2016	52	76	(24)		32%	37	77	(40)		52%	89	153	(64)		42%	2016
2017	52	76	(24)		31%	35	72	(37)		52%	87	148	(61)		41%	2017
2018	52	75	(23)		31%	33	70	(37)		53%	85	145	(60)		41%	2018
2019	52	75	(23)		30%	31	68	(36)		54%	83	142	(59)		42%	2019
2020	49	74	(24)		33%	30	66	(36)		55%	79	140	(61)		43%	2020
2021	47	73	(27)		36%	28	67	(38)		58%	75	140	(65)		46%	2021
2022	44	73	(29)		39%	27	68	(41)		60%	71	141	(70)		49%	2022
2023	42	73	(31)		42%	26	67	(42)		62%	68	140	(73)		52%	2023
2024	40	73	(33)		45%	24	69	(44)		65%	64	142	(77)		55%	2024
2025	38	73	(35)		48%	23	66	(43)		65%	61	139	(77)		56%	2025
2026	36	73	(37)		50%	22	65	(43)		66%	58	137	(79)		58%	2026
2027	34	73	(38)		53%	21	64	(43)		67%	55	137	(81)		60%	2027
2028	33	73	(40)		55%	20	61	(41)		68%	53	134	(82)		61%	2028
2029	31	73	(42)		57%	19	61	(42)		69%	50	134	(84)		63%	2029
2030	30	73	(43)		59%	18	61	(43)		71%	47	134	(86)		65%	2030
2031	28	73	(45)		61%	17	60	(43)		71%	45	132	(87)		66%	2031
2032	27	73	(46)		64%	16	59	(43)		73%	43	132	(89)		68%	2032
2033	25	73	(48)		65%	15	58	(43)		74%	41	131	(91)		69%	2033
2034	24	74	(49)		67%	15	58	(44)		75%	39	132	(93)		71%	2034
2035	23	74	(51)		69%	14	58	(44)		76%	37	132	(95)		72%	2035

Notes:

Oil Demand includes Bunkers (estimated at 2.6 mtoe from 2016 onwards); Net Gas Production and Demand exclude oil and gas producers' own use.
Both actual and projected Net Exports (Imports), and thus Import Dependency, are as implied by the difference between UK production and UK demand.

The production projections for 2017–2022 are consistent with those published by the OGA at https://www.ogauthority.co.uk/data-centre/data-downloads-and-publications/production-projections/.
After 2022, oil production is assumed to decline at 5% pa and gas production to decline at 5% pa.

The demand projections for 2016–2035 are consistent with the Reference Scenario in "Updated Energy and Emissions Projections: 2016" published by BEIS (at https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2016) in March 2017.