Section 2 – Solid Fuels and Derived Gases

Key results show:

Overall coal production in the first quarter of 2017 fell to a new record low, down 12 per cent (0.1 million tonnes) compared with the first quarter of 2016 with further contraction in surface mine output, including a new record low in January 2017 when some coal mines had a seasonal shut down. **(Chart 2.1)**

Coal imports fell 9.1 per cent (0.2 million tonnes) on levels shown in the first quarter of 2016, as demand fell, especially for use by electricity generators.**(Charts 2.1 and 2.2)**

The demand for coal by electricity generators in the first quarter of 2017 was 32 per cent (1.8 million tonnes) lower than demand in the first quarter of 2016 due to a fall in coal generation capacity, with the closures of Ferrybridge C and Longannet in March 2016. There was a seasonal demand increase in the first quarter of 2017, along with a small increase in generation from Eggborough and Fiddlers Ferry coming back online as part of the Supplemental Balancing Reserve. The SBR went off line at the end of February 2017. **(Chart 2.3)**

Total stock levels were down 41 per cent to 6.1 million tonnes compared to a year earlier. This was due to closure of coal fired power plants and generators using held stock for electricity generation while purchasing less coal from the UK and overseas. **(Chart 2.4)**

Relevant tables

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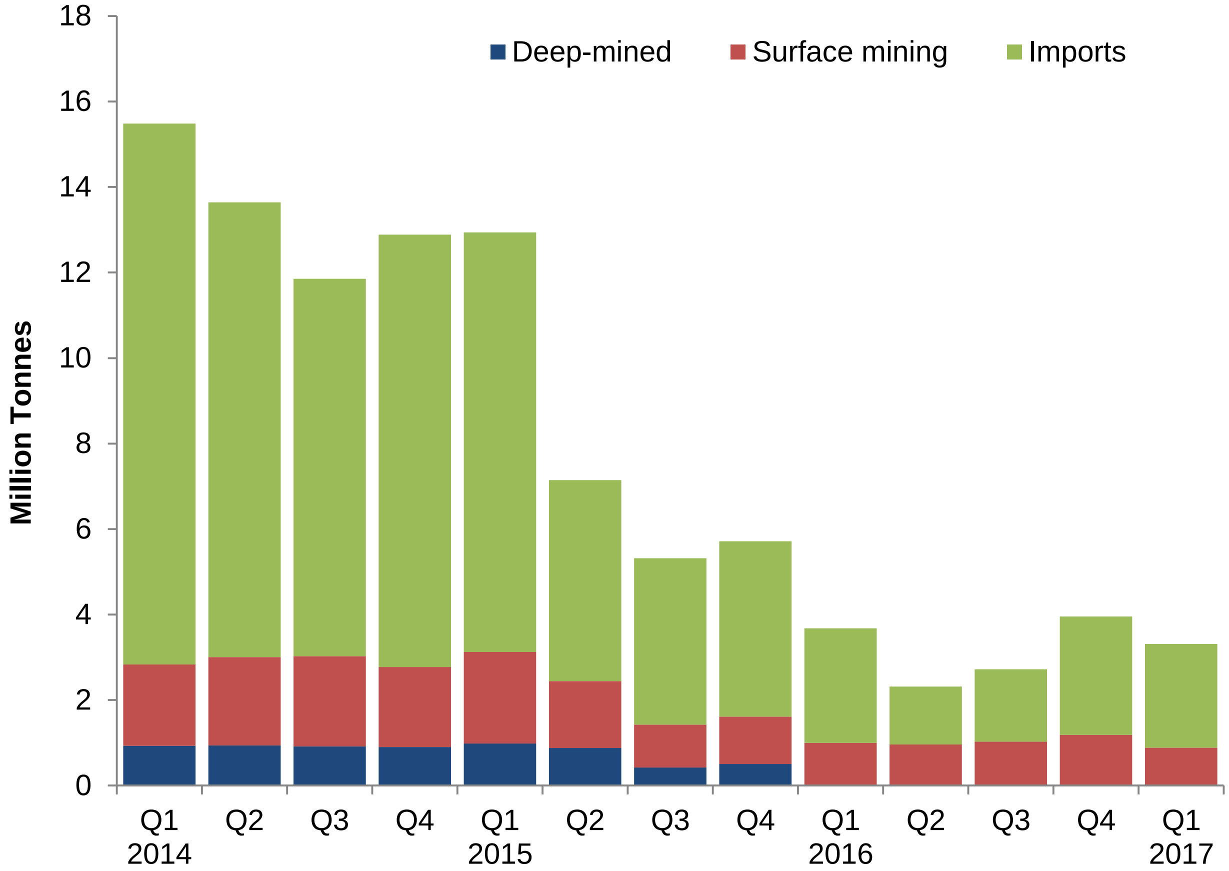
Chart 2.1 Coal supply (Table 2.1)



Coal production in the first quarter of 2017 reached a record low of 0.9 million tonnes, 12 per cent down compared to the first quarter of 2016. The bulk of this decrease came from the contraction in surface mine output as deep mine production is now under 1 per cent of production with only seven small deep mines remaining. The falls were due to decreased demand, particularly for electricity generation, and seasonal shut downs in January 2017 which led to record low production for that month.

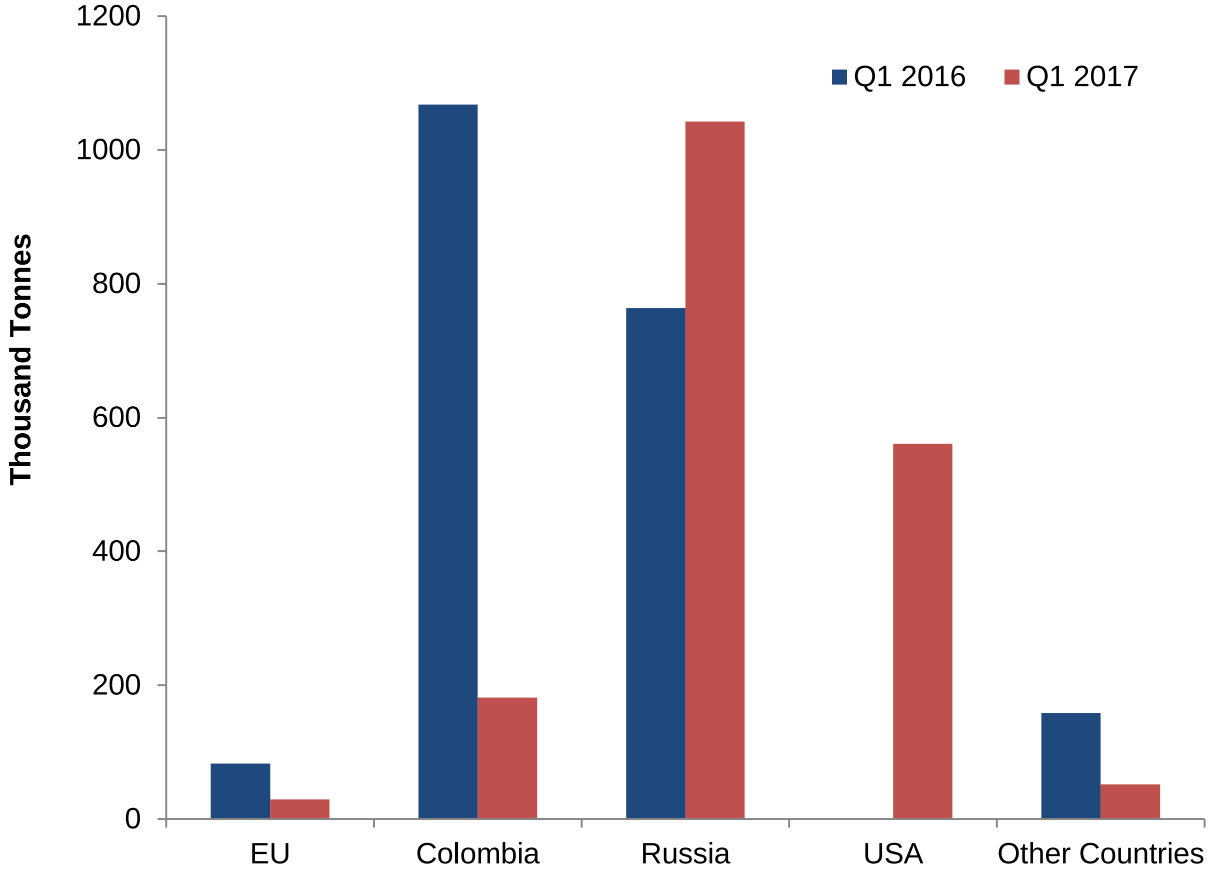
Table 2A Coal imports by origin

Thousand Tonnes

	2015	2016p	2016 Q1	2017 Q1p
European Union	614	439	106	42
Russia	8,380	2,292	937	1,347
Colombia	6,553	2,667	1,068	181
USA	5,018	1,420	318	739
Australia	910	778	43	56
Other Countries	1,042	898	204	67
Total Imports	**22,518**	**8,494**	**2,675**	**2,431**

Imports of coal in the first quarter of 2017 were 9.1 per cent lower than in the first quarter of 2016 at 2.4 million tonnes. The decrease reflects reduced consumption by electricity generators with the closures of Ferrybridge C and Longannet in March 2016. There was a seasonal demand increase from coal-fired power stations in the first quarter of 2017, along with a small increase in generation from Eggborough and Fiddlers Ferry coming back online as part of the Supplemental Balancing Reserve (SBR). The SBR went off line at the end of February 2017.

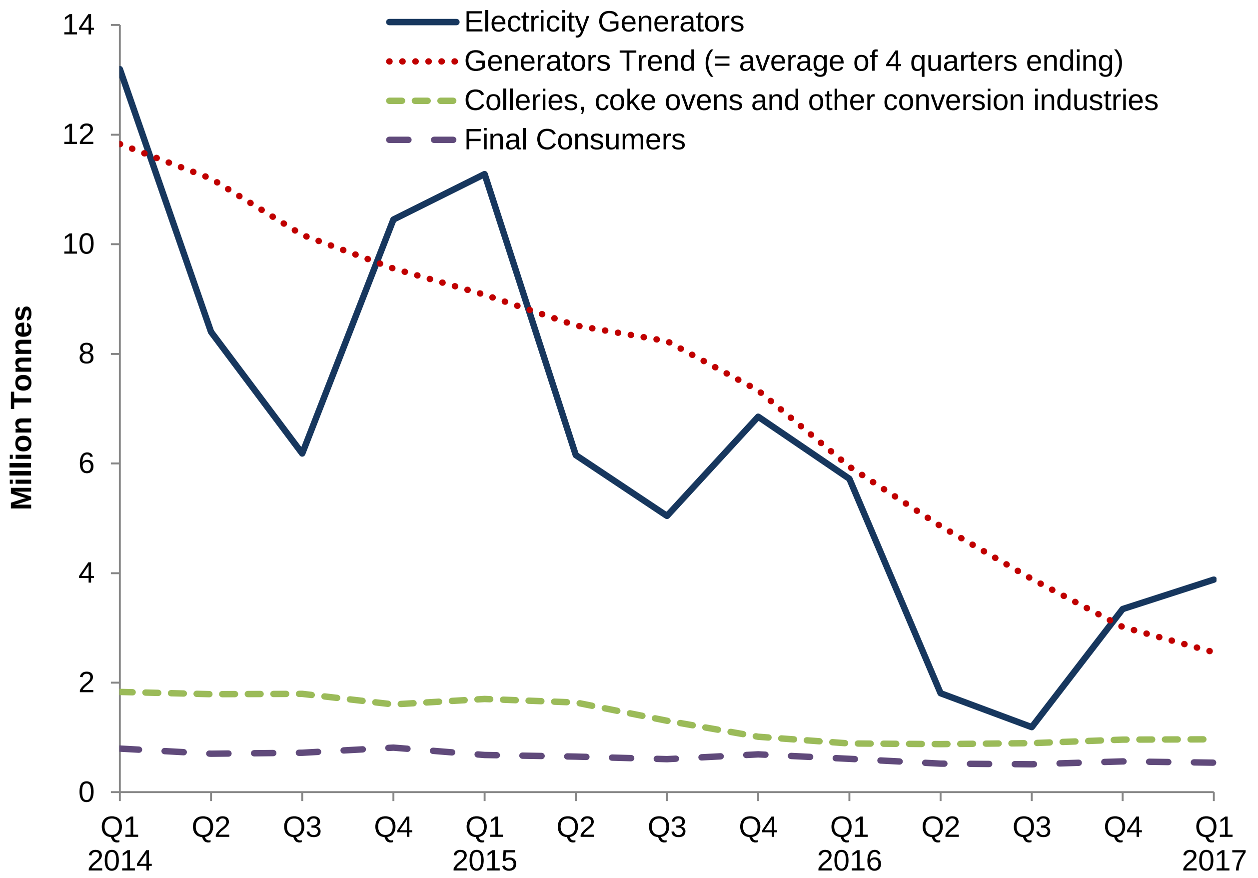
Chart 2.2 Steam coal imports by origin [(Table 2.4)]



In the first quarter of 2017, steam coal comprised 77 per cent of coal imports and coking coal comprised 22 per cent. Imports of both fell compared to the first quarter of 2016, with steam coal imports down 10 per cent to 1.9 million tonnes and coking coal imports down 7.5 per cent to 0.5 million tonnes.

Russia overtook Colombia as the biggest supplier of steam coal providing 56 per cent of steam coal imports in the first quarter of 2017. The USA became the second largest supplier, providing 30 per cent (561 thousand tonnes). The USA had not exported any steam coal in the first quarter of 2016 and had only exported 373 thousand tonnes of steam coal to the UK for the whole of 2016. Steam coal imports from Colombia fell by 83 per cent.

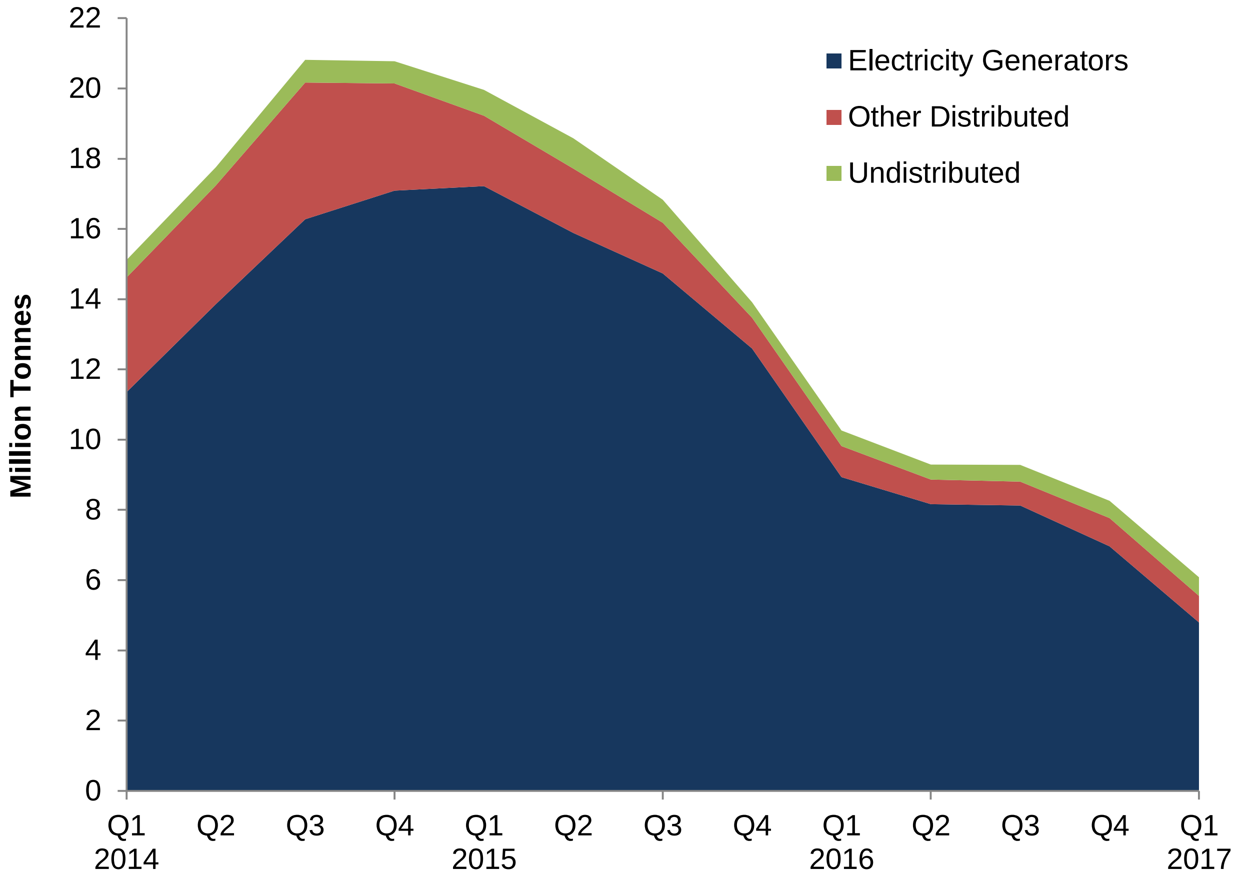
Chart 2.3 Coal consumption [(Table 2.1)]



Total demand for coal in the first quarter of 2017, at 5.4 million tonnes, was 25 per cent lower than in the first quarter of 2016. Consumption by electricity generators was down by a third to 3.9 million tonnes. Electricity generators accounted for 72 per cent of total coal use in the first quarter of 2017 compared with 79 per cent a year earlier.

In the first quarter of 2017, sales to industrial users fell by 15 per cent to 0.4 million tonnes whilst sales to other final consumers (including domestic) decreased by 5.0 per cent to 0.2 million tonnes. Coal used in blast furnaces was up 11 per cent compared to the first quarter of 2016, to 0.4 million tonnes.

Chart 2.4 Coal stocks (Table 2.1)



Coal stocks fell seasonally by 2.2 million tonnes during the first quarter of 2017 and at the end of March stood at 6.1 million tonnes (a new record low). This was 4.2 million tonnes lower than at the end of March 2016.

The level of coal stocks at power stations at the end of the first quarter of 2017 was 4.8 million tonnes, 4.1 million tonnes lower than at the end of March 2016. This reflected the closure of two coal-fired power stations and generators using held stock for electricity generation, reducing purchases from the UK and overseas.

Stocks held by coke ovens were 0.4 million tonnes at the end of the first quarter of 2017, this was 12 thousand tonnes lower than stock levels at the end of March 2016.

Stocks held by producers (undistributed stocks) at the end of the first quarter of 2017 were 0.5 million tonnes, 0.1 million tonnes higher than at the end of March 2016.

2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

Thousand tonnes

	2015	2016 p	*per cent change*	2015 1st quarter	2015 2nd quarter	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter p	*per cent change* [1]
SUPPLY													
Indigenous production	8,598	4,178	*-51.4*	3,122	2,441	1,424	1,612	1,001	962	1,027	1,188	883	*-11.7*
Deep mined	2,784	22	*-99.2*	980	880	420	504	7	6	5	5	5	*-22.4*
Surface mining [2]	5,814	4,156	*-28.5*	2,142	1,561	1,004	1,108	994	957	1,022	1,183	878	*-11.6*
Imports [4]	22,518	8,494	*-62.3*	9,817r	4,707r	3,891	4,103	2,675	1,356	1,694	2,768	2,431	*-9.1*
Exports [5]	385	443	*+15.1*	111	75	104	96	103	76	137	128	118	*+15.0*
Stock change [6]	+6,862r	+5,655r	*-17.6*	+815r	+1,378r	+1,749r	+2,920r	+3,651r	+971r	+9r	+1,023r	+2,177	*-40.4*
Total supply	37,593r	17,883r	*-52.4*	13,643r	8,451r	6,960r	8,539r	7,225	3,213r	2,594r	4,851r	5,373	*-25.6*
Statistical difference	-18r	-6r		-19r	+11r	+6r	-16r	+2	+4r	-1r	-11	-10	
Total demand	37,612r	17,889r	*-52.4*	13,662r	8,440r	6,954r	8,555r	7,223	3,209r	2,595r	4,863r	5,383	*-25.5*
TRANSFORMATION	34,988r	15,678	*-55.2*	12,983r	7,791r	6,349r	7,865r	6,611r	2,685	2,081r	4,301r	4,845	*-26.7*
Electricity generation	29,330r	12,058r	*-58.9*	11,283r	6,154r	5,041r	6,851r	5,722	1,808	1,187r	3,341r	3,878	*-32.2*
Heat generation [7]	213	213	-	80	42r	32	58	76r	43	29r	65r	80	*+5.8*
Coke manufacture	3,673	1,821	*-50.4*	1,165	1,083	880	545	443	438	464	475	482	*+8.8*
Blast furnaces	1,544	1,364	*-11.7*	423	447	330	344	316	345	346	357	350	*+11.1*
Patent fuel manufacture	228r	223	*-2.5*	32r	64r	65r	66	55	51	55	62	54	*-1.7*
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	2,624r	2,211r	*-15.7*	679r	649r	605r	691	612r	524r	514r	562r	538	*-12.0*
Iron & steel	44r	35r	*-21.7*	11r	12	11r	10	10	10	7r	7r	9	*-13.0*
Other industries	1,999r	1,580r	*-20.9*	501r	504r	474r	519	431	381r	393r	376	367	*-14.8*
Domestic	552r	550r	*-0.4*	158r	127	113r	154	156	123r	101	171r	152	*-2.4*
Other final users	29r	47r	*+60.5*	8r	6r	7r	8	15r	11	12r	9r	10	*-32.5*
Stocks at end of period													
Distributed stocks	13,471r	7,766r	*-42.4*	19,224r	17,718r	16,176r	13,471r	9,817r	8,863r	8,805r	7,766r	5,552	*-43.5*
Of which:													
Major power producers [8]	12,595r	6,962r	*-44.7*	17,218r	15,885r	14,733r	12,595r	8,933r	8,163r	8,125r	6,962r	4,794	*-46.3*
Coke ovens	547	605r	*+10.6*	836	955	742	547r	457r	488r	322r	605r	445	*-2.7*
Undistributed stocks	441r	492r	*+11.4*	736r	863r	656r	441r	444	427	476	492r	529	*+19.2*
Total stocks [9]	13,913r	8,258r	*-40.6*	19,960r	18,581	16,832r	13,913r	10,261r	9,291r	9,281r	8,258r	6,081	*-40.7*

1. Percentage change between the most recent quarter and the same quarter a year earlier.
2. The term 'surface mining' has now replaced opencast production. Opencast production is a surface mining technique.
3. Not produced since 2013 as the only mine producing slurry has ceased trading
4. For a detailed breakdown of UK Imports by country and grade of coal refer to Table 2.4 Coal imports (internet table only).
5. Trade is counted as an export under three conditions, when it is recorded as an import and is subsequently exported; it enters the UK port with the intention of being imported but due to a change of ownership at the port it is exported without having cleared the port; and when items leave the warehouse and are exported. Trade is not classified as exports when it is resting at a UK port and the UK is not the intended final destination.
6. Stock change + = stock draw, - = stock build.
7. Heat generation is based on an annual figure and is then split over a quarterly period. The 2016 heat generation figure will not be published until the end of July 2017. Therefore, the 2015 figure is used as an estimate for 2017.
8. This includes stocks held at ports.
9. For some quarters, closing stocks may not be consistent with stock changes, due to additional stock adjustments

2 SOLID FUEL AND DERIVED GASES

Table 2.2 Supply and consumption of coke oven coke, coke breeze and other manufactured solid fuels

Thousand tonnes

	2015	2016 p	*per cent change*	2015 1st quarter	2015 2nd quarter	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter p	*per cent change*[3]
SUPPLY													
Indigenous production	2,965	1,593	*-46.3*	895	868	727	474	376	385	409	424	408	*+8.6*
Coke Oven Coke	2,716	1,332	*-51.0*	854	800	658	404	320	319	344	348	346	*+8.1*
Coke Breeze	18	16	*-10.6*	5	5	4	5	4	4	4	4	4	*+10.2*
Other MSF	231	245	*+6.2*	36	64	65	66	51	61	61	71	57	*+11.4*
Imports	1,132	1,251r	*+10.5*	302	290	215	325	287	284	284	397r	187	*-34.8*
Exports	111	22	*-79.9*	23	74	7	8	6	4	6	6	7	*+23.7*
Stock change[1]	64	-126	*(-)*	+73	+37	-50	+4	-2	+21	-15	-130	+65	
Transfers	-3	-4		-2	-1	-	-	-1	-1	-0	-2	-1	
Total supply	4,047	2,691	*-33.5*	1,246	1,121	885	796	654	685	671	682	652	*-0.3*
Statistical difference	0	0		-0	-	0	-0	-0	-	0	-0	-0	
Total demand	4,047	2,691	*-33.5*	1,246	1,121	885	796	654	685	671	682	652	*-0.3*
TRANSFORMATION	3,257	2,140	*-34.3*	1,009	908	705	635	525	548	533	535	508	*-3.1*
Coke manufacture	-	-		-	-	-	-	-	-	-	-	-	
Blast furnaces	3,257	2,140	*-34.3*	1,009	908	705	635	525	548	533	535	508	*-3.1*
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	790	551	*-30.2*	237	213	179	161	130	137	138	146	144	*+10.9*
Iron & steel	539	316	*-41.4*	165	151	125	98	75	79	84	78	76	*+0.9*
Other industries	17	-	*-100.0*	10	6	-	-	-	-	-	-	-	
Domestic	235	236	*+0.4*	62	56	54	63	55	58	55	68	68	*+24.6*
Stocks at end of period[2]	1,124	1,249r	*+11.2*	1,115	1,028	1,038	1,124	1,126	1,108	1,142	1,249r	1,187	*+5.5*

1. Stock change + = stock draw, - = stock build.
2. For some quarters, closing stocks may not be consistent with stock changes, due to additional stock adjustments
3. Percentage change between the most recent quarter and the same quarter a year earlier; (+) represents a positive percentage change greater than 100%.

2 SOLID FUEL AND DERIVED GASES

Table 2.3 Supply and consumption of coke oven gas, blast furnace gas, benzole and tars

GWh

	2015	2016 p	*per cent change*	2015 1st quarter	2015 2nd quarter	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter p	*per cent change* [1]
SUPPLY													
Indigenous production	22,156	14,089	*-36.4*	6,995	6,315	4,972	3,874	3,406	3,603	3,424	3,656	3,541	*+4.0*
Coke oven gas	6,890	3,468	*-49.7*	2,264	2,030	1,595	1,000	870	836	855	907	960	*+10.3*
Blast furnace gas	14,131	10,090	*-28.6*	4,359	3,941	3,117	2,713	2,403	2,645	2,439	2,603	2,444	*+1.7*
Benzole & tars	1,136	531	*-53.2*	371	344	260	161	134	123	129	145	138	*+3.0*
Transfers	420	344	*-18.2*	92	96	99	132	127	106	64	47	56	*-55.8*
Total supply	22,576	14,433	*-36.1*	7,088	6,411	5,071	4,006	3,534	3,709	3,487	3,703	3,597	*+1.8*
Statistical difference	+41r	+9r		+33	-14	+5	+17	-6r	+10	+10r	-5r	+5	
Total demand	22,535	14,424r	*-36.0*	7,054	6,425	5,066	3,989	3,540r	3,699	3,477r	3,708r	3,592	*+1.5*
TRANSFORMATION	9,704	6,875r	*-29.2*	3,192	2,580	2,053	1,880	1,669r	1,682r	1,653r	1,871r	1,716	*+2.8*
Electricity generation	9,107	6,278r	*-31.1*	3,042	2,430	1,904	1,731	1,520r	1,533r	1,504r	1,721r	1,566	*+3.1*
Heat generation[2]	598	598	-	149	149	149	149	149	149	149	149	149	-
Energy industry use	8,330	4,846	*-41.8*	2,581	2,358	1,894	1,497	1,236	1,235	1,150	1,226	1,200	*-2.9*
Losses	2,646	1,116	*-57.8*	674	912	737	323	248	337	318	213	272	*+9.6*
FINAL CONSUMPTION	1,855	1,587r	*-14.5*	608	576	383	289	387r	445r	356r	399r	404	*+4.4*
Iron & steel	719	1,056r	*+46.8*	237	231	123	128	254r	322r	227r	254r	267	*+5.2*
Other industries[3]	-	-		-	-	-	-	-	-	-	-	-	
Non-Energy Use[4]	1,136	531	*-53.2*	371	344	260	161	134	123	129	145	138	*+3.0*

1. Percentage change between the most recent quarter and the same quarter a year earlier; (+) represents a positive percentage change greater than 100%.
2. Heat generation is based on an annual figure and is then split over a quarterly period. The 2016 heat generation figure will not be published until the end of July 2017. Therefore, the 2015 figure is used as an estimate for 2017.
3. The main industrial consumer of derived gases Monckton coke-works (also a producer of them) closed in December 2014.
4. From 2009, unclassified final consumption for benzole and tars has been recorded under non energy use