

Section 2 – Solid Fuels and Derived Gases

Key results show:

The demand for coal by electricity generators in the third quarter of 2017 was 28 per cent lower than demand in the third quarter of 2016. Whilst fuel costs for coal-fired generation are lower for gas, emissions from coal are higher so generators must pay a greater carbon price per GWh produced. **(Chart 2.3)**

Coal supply fell 18 per cent in the third quarter of 2017 in response to reduced demand. Overall, coal production fell 30 per cent whilst net coal imports rose 10 per cent on levels shown in the third quarter of 2016. **(Charts 2.1 and 2.2)**

Total stock levels were down 29 per cent (-2.7 million tonnes) to 6.6 million tonnes compared to a year earlier. With the reduction in electricity generation from coal, generators do not need to hold as much fuel in stock to meet expected demand. **(Chart 2.4)**

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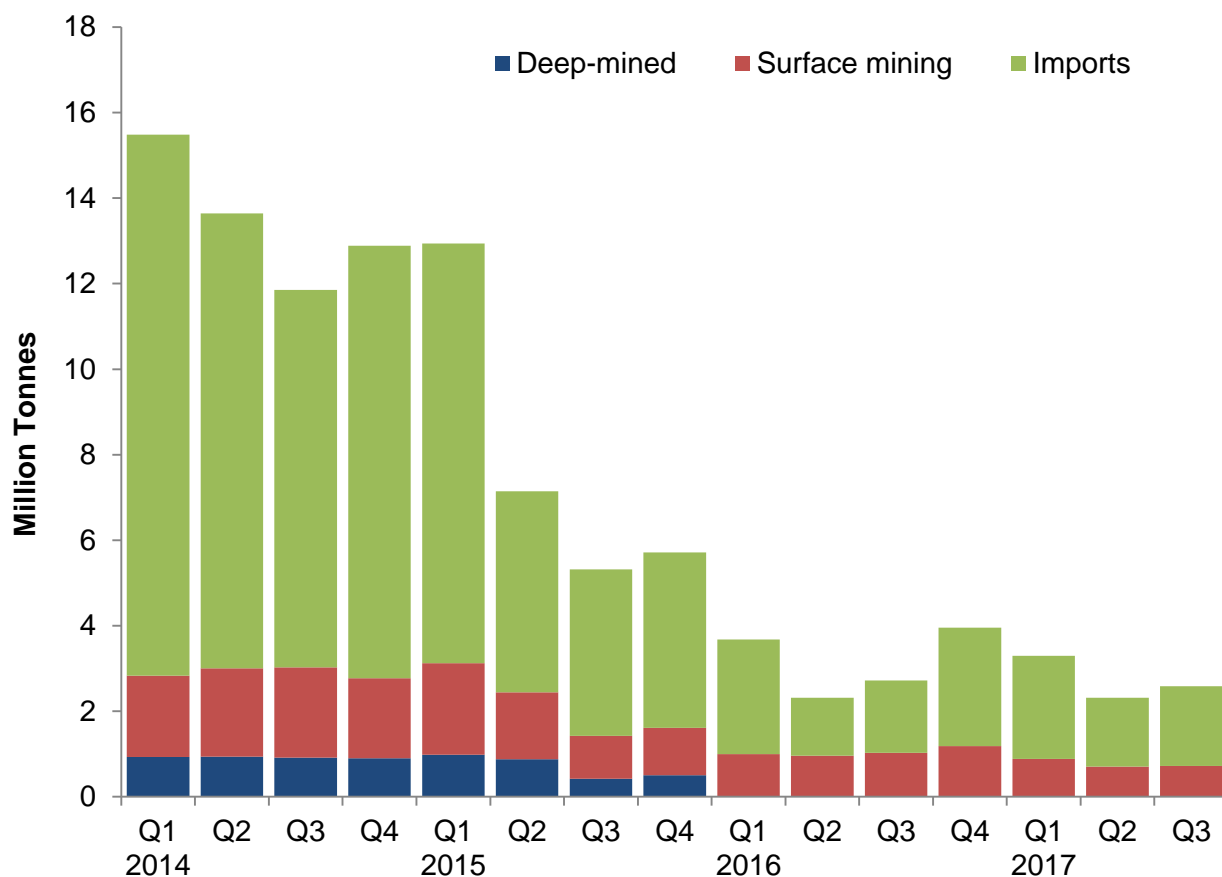
Contact for further information:

Chris Michaels

Coal statistics

Tel: 0300 068 5050

E-mail: coalstatistics@beis.gov.uk

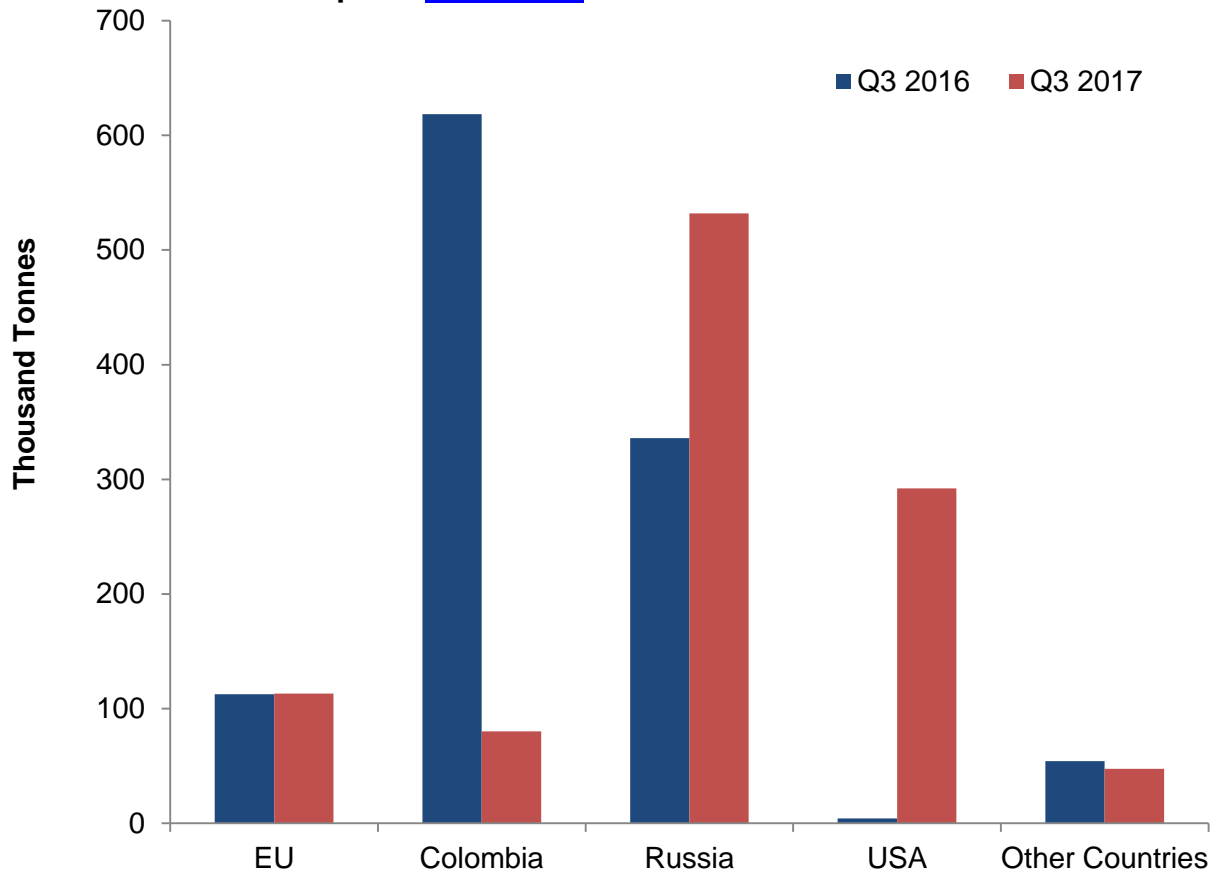
Chart 2.1 Coal supply ([Table 2.1](#))

Coal production in the third quarter of 2017 fell to 0.7 million tonnes, 30 per cent down compared to the third quarter of 2016. The falls were due to decreased demand, particularly for electricity generation.

Table 2A Coal imports by origin

	Thousand Tonnes			
	2015	2016	2016 Q3	2017 Q3p
European Union	614	439	135	128
Russia	8,380	2,292	482	781
Colombia	6,553	2,667	619	80
USA	5,018	1,420	190	546
Australia	910	778	125	249
Other Countries	1,042	898	143	77
Total Imports	22,518	8,494	1,694	1,862

Imports of coal in the third quarter of 2017 were 9.9 per cent higher than in the second quarter of 2016 at 1.9 million tonnes.

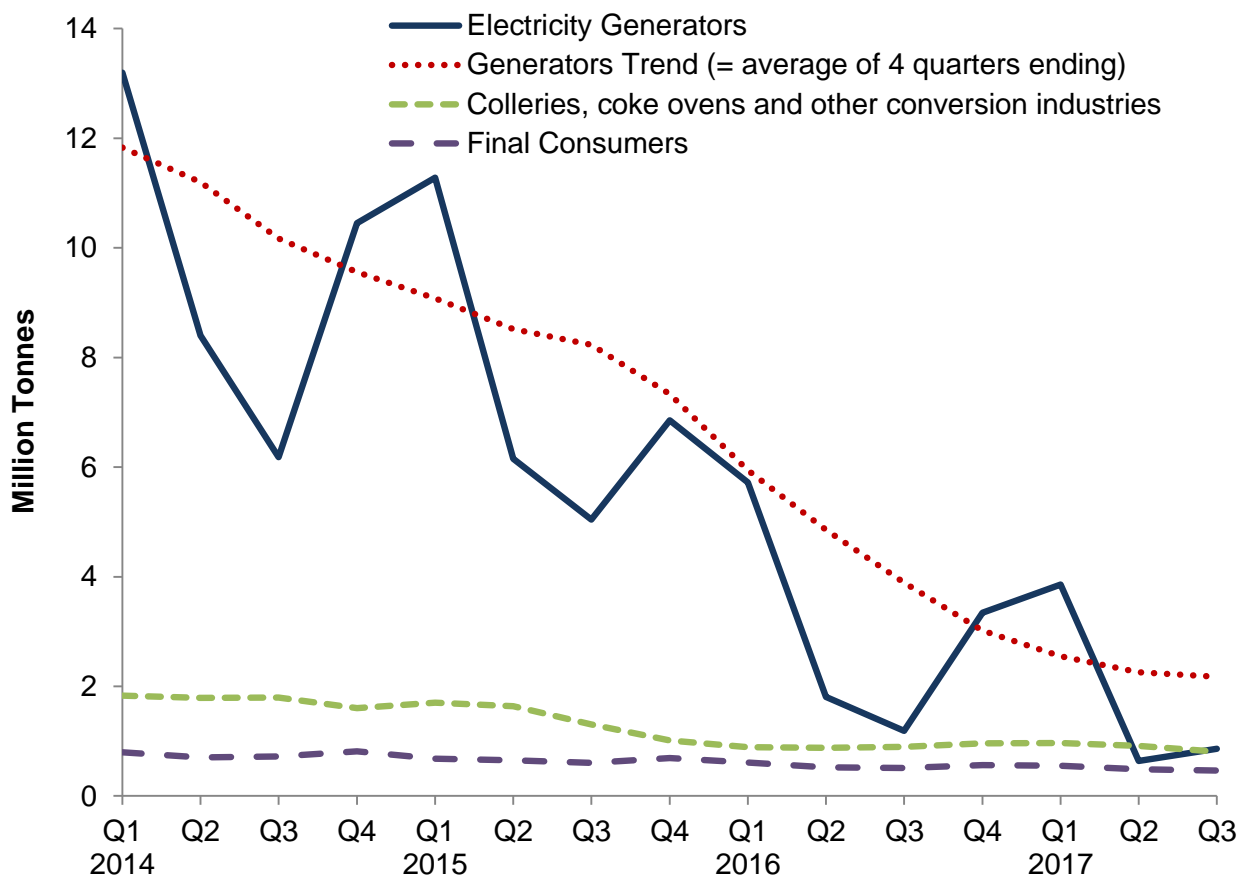
Chart 2.2 Steam coal imports ([Table 2.4](#))

Steam coal imports in the third quarter of 2017 fell by 5.4 per cent to 1.1 million tonnes and accounted for 57 per cent of total coal imports.

In the third quarter of 2017, 50 per cent of total UK steam coal imports were from Russia, the USA (27 per cent) and Colombia (8 per cent). Steam coal imports from Russia rose by 53 per cent from 336 million tonnes in the third quarter of 2016 to 532 million tonnes in the third quarter of 2017. Steam coal imports from USA rose from 4 thousand tonnes in the third quarter of 2016 to 292 thousand tonnes in the third quarter of 2017. Steam coal imports from Colombia fell by 87 per cent from 619 thousand tonnes in the third quarter of 2016 to 80 thousand tonnes in the third quarter of 2017.

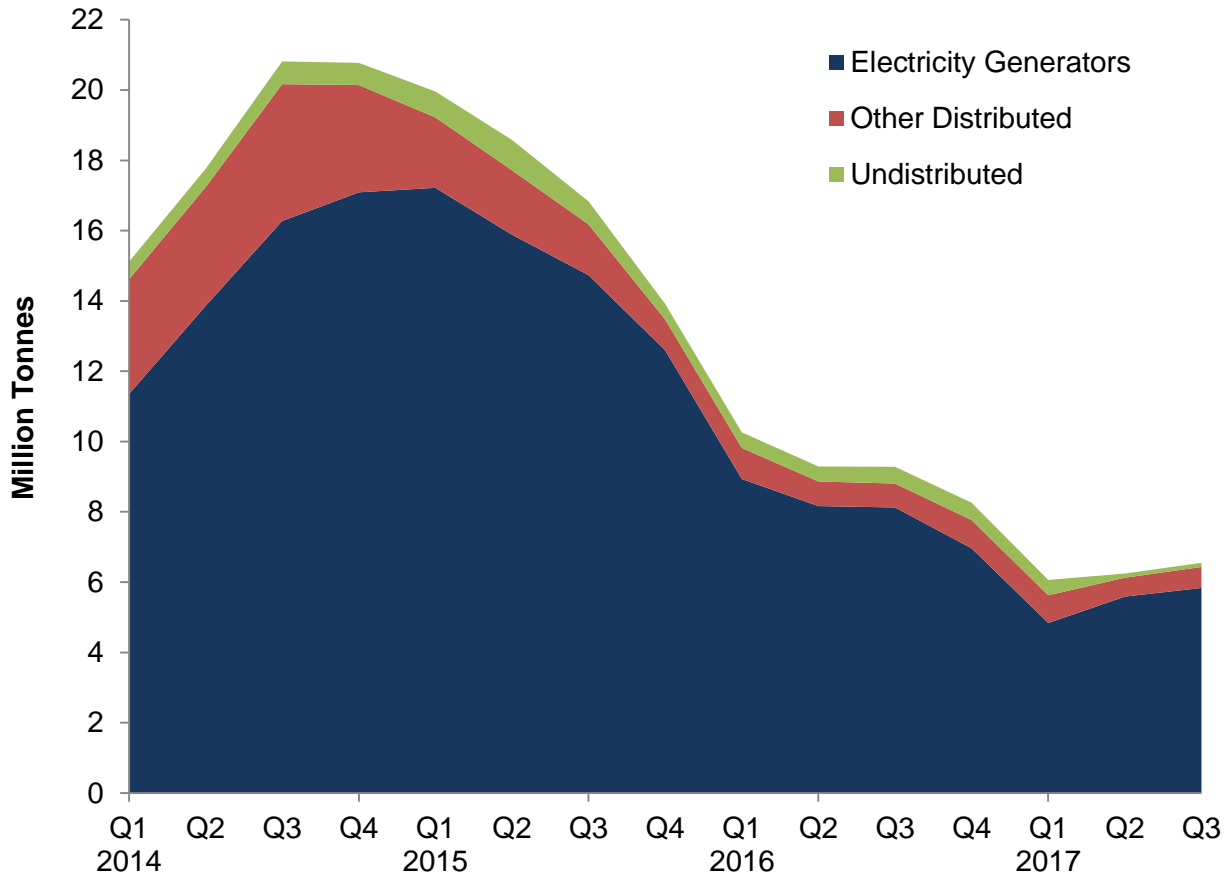
Coking coal imports in the third quarter of 2017 rose by 42 per cent to 0.8 million tonnes and accounted for 42 per cent of total coal imports. Coking coal imports had overtaken steam coal imports in the second quarter of 2017 as steam coal imports fell. However, steam coal imports rose 44 per cent compared to the second quarter of 2017 due to increased demand for electricity generation, while coking coal imports fell by 7.0 per cent.

Chart 2.3 Coal consumption [\(Table 2.1\)](#)



Total demand for coal in the third quarter of 2017, at 2.1 million tonnes, was 18 per cent lower than in the third quarter of 2016. Consumption by electricity generators was down by 28 per cent to 0.9 million tonnes. Electricity generators accounted for 40 per cent of total coal use in the second quarter of 2017 compared with 46 per cent a year earlier.

In the third quarter of 2017, sales to industrial users fell by 12 per cent to 0.4 million tonnes whilst sales to other final consumers (including domestic) increased by 0.2 per cent to 0.1 million tonnes. Coal used in blast furnaces was down 22 per cent compared to the third quarter of 2016, to 0.3 million tonnes.

Chart 2.4 Coal stocks ([Table 2.1](#))

Coal stocks rose by 0.3 million tonnes during the third quarter of 2017 and at the end of September stood at 6.6 million tonnes. This was 2.7 million tonnes lower than at the end of September 2016.

The level of coal stocks at power stations at the end of the third quarter of 2017 was 5.8 million tonnes, 2.3 million tonnes lower than at the end of September 2016. This reflected lower anticipated electricity generation from coal, reducing the need to hold as much fuel in stock.

Stocks held by coke ovens were 0.5 million tonnes at the end of the third quarter of 2017, this was 0.1 million tonnes higher than stock levels at the end of September 2016.

Stocks held by producers (undistributed stocks) at the end of the third quarter of 2017 were 0.1 million tonnes, 0.4 million tonnes lower than at the end of September 2016.

2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

Thousand tonnes

	2015	2016	per cent change	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter	2017 2nd quarter	2017 3rd quarter p	per cent change ¹
SUPPLY													
Indigenous production	8,598	4,178	-51.4	1,424	1,612	1,001	962	1,027	1,188	888r	708r	721	-29.8
Deep mined	2,784	22	-99.2	420	504	7	6	5	5	5	5	5	+0.6
Surface mining ²	5,814	4,156	-28.5	1,004	1,108	994	957	1,022	1,183	883r	702r	716	-29.9
Imports ⁴	22,518	8,494	-62.3	3,891	4,103	2,675	1,356	1,694	2,768	2,412r	1,611r	1,862	+9.9
Exports ⁵	385	443	+15.1	104	96	103	76	137	128	120r	100	142	+3.5
Stock change ⁶	+6,862	+5,655	-17.6	+1,749	+2,920	+3,651	+971	+9	+1,023	+2,191r	-181r	-306	
Total supply	37,593	17,883	-52.4	6,960	8,539	7,225	3,213	2,594	4,851	5,372r	2,038r	2,135	-17.7
Statistical difference	-18	-6		+6	-16	+2	+4	-1	-11	-7r	-3r	+2	
Total demand	37,612	17,889	-52.4	6,954	8,555	7,223	3,209	2,595	4,863	5,378r	2,041r	2,134	-17.8
TRANSFORMATION	34,988	15,678	-55.2	6,349	7,865	6,611	2,685	2,081	4,301	4,826r	1,552r	1,670	-19.8
Electricity generation	29,330	12,058	-58.9	5,041	6,851	5,722	1,808	1,187	3,341	3,858r	637r	860	-27.5
Heat generation ⁷	213	213	-	32	58	76	43	29	65	76	43	29	-
Coke manufacture	3,673	1,821	-50.4	880	545	443	438	464	475	482	469	474	+2.1
Blast furnaces	1,544	1,364	-11.7	330	344	316	345	346	357	350	354r	270	-21.9
Patent fuel manufacture	228	223	-2.5	65	66	55	51	55	62	59	48	36	-34.3
Energy industry use	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL CONSUMPTION	2,624	2,211	-15.7	605	691	612	524	514	562	553	488	464	-9.7
Iron & steel	44	35	-21.7	11	10	10	10	7	7	9	9	8	+14.9
Other industries	1,999	1,580	-20.9	474	519	431	381	393	376	373	358	342	-12.9
Domestic	552	550	-0.4	113	154	156	123	101	171	156r	112	103	+1.7
Other final users	29	47	+60.5	7	8	15	11	12	9	14	10	10	-15.8
Stocks at end of period													
Distributed stocks	13,471	7,766	-42.4	16,176	13,471	9,817	8,863	8,805	7,766	5,626r	6,125r	6,431	-27.0
Of which:													
Major power producers ⁸	12,595	6,962	-44.7	14,733	12,595	8,933	8,163	8,125	6,962	4,837r	5,588r	5,834	-28.2
Coke ovens	547	605	+10.6	742	547	457	488	322	605	445r	464r	454	+41.0
Undistributed stocks	441	492	+11.4	656	441	444	427	476	492	436	119	119	-75.0
Total stocks⁹	13,913	8,258	-40.6	16,832	13,913	10,261	9,291	9,281	8,258	6,062r	6,244r	6,550	-29.4

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 2017 heat generation figures currently shown are the 2016 figures carried forward - these will be updated in June 2018.

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	<i>per cent change</i>	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter	2017 2nd quarter	2017 3rd quarter p	<i>per cent change³</i>
SUPPLY													
Indigenous production	2,965	1,593	-46.3	727	474	376	385	409	424	408	384	395	-3.4
Coke Oven Coke	2,716	1,332	-51.0	658	404	320	319	344	348	346	337	343	-0.1
Coke Breeze	18	16	-10.6	4	5	4	4	4	4	4	4	5	+20.0
Other MSF	231	245	+6.2	65	66	51	61	61	71	57	42	47	-23.4
Imports	1,132	1,251	+10.5	215	325	287	284	284	397	187	233	258	-8.9
Exports	111	22	-79.9	7	8	6	4	6	6	7	1	4	-30.7
Stock change ¹	64	-126	(-)	-50	+4	-2	+21	-15	-130	+65	+17	-25	+73.0
Transfers	-3	-4		-	-	-1	-1	-0	-2	-1	-1	-1	
Total supply	4,047	2,691	-33.5	885	796	654	685	671	682	652	632	622	-7.3
Statistical difference	0	0		0	-0	-0	-	0	-0	-0	-	-0	
Total demand	4,047	2,691	-33.5	885	796	654	685	671	682	652	632	622	-7.2
TRANSFORMATION	3,257	2,140	-34.3	705	635	525	548	533	535	508	507	502	-5.7
Coke manufacture	-	-		-	-	-	-	-	-	-	-	-	
Blast furnaces	3,257	2,140	-34.3	705	635	525	548	533	535	508	507	502	-5.7
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	790	551	-30.2	179	161	130	137	138	146	144	126	120	-13.0
Iron & steel	539	316	-41.4	125	98	75	79	84	78	76	70	74	-11.3
Other industries	17	-	-100.0	-	-	-	-	-	-	0r	0	0	
Domestic	235	236	+0.4	54	63	55	58	55	68	68	56	46	-15.5
Stocks at end of period²	1,124	1,249	+11.2	1,038	1,124	1,126	1,108	1,142	1,249	1,187	1,170	1,200	+5.0

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	<i>per cent change</i>	2015 3rd quarter	2015 4th quarter	2016 1st quarter	2016 2nd quarter	2016 3rd quarter	2016 4th quarter	2017 1st quarter	2017 2nd quarter	2017 3rd quarter p	<i>per cent change¹</i>
SUPPLY													
Indigenous production	22,156	14,089	-36.4	4,972	3,874	3,406	3,603	3,424	3,656	3,541	3,543	3,403	-0.6
Coke oven gas	6,890	3,468	-49.7	1,595	1,000	870	836	855	907	960	946	949	+10.9
Blast furnace gas	14,131	10,090	-28.6	3,117	2,713	2,403	2,645	2,439	2,603	2,444	2,451	2,332	-4.4
Benzole & tars	1,136	531	-53.2	260	161	134	123	129	145	138	146	122	-5.6
Transfers	420	344	-18.2	99	132	127	106	64	47	56	24	29	-54.6
Total supply	22,576	14,433	-36.1	5,071	4,006	3,534	3,709	3,487	3,703	3,597	3,568	3,431	-1.6
Statistical difference	+41	+9		+5	+17	-6	+10	+10	-5	+5	+3	+10	
Total demand	22,535	14,424	-36.0	5,066	3,989	3,540	3,699	3,477	3,708	3,592	3,565	3,421	-1.6
TRANSFORMATION	9,704	6,875	-29.2	2,053	1,880	1,669	1,682	1,653	1,871	1,716	1,651	1,560	-5.7
Electricity generation	9,107	6,278	-31.1	1,904	1,731	1,520	1,533	1,504	1,721	1,566	1,502	1,410	-6.2
Heat generation ²	598	598	-	149	149	149	149	149	149	149	149	149	-
Energy industry use	8,330	4,846	-41.8	1,894	1,497	1,236	1,235	1,150	1,226	1,200	1,185	1,158	+0.7
Losses	2,646	1,116	-57.8	737	323	248	337	318	213	272	301	332	+4.4
FINAL CONSUMPTION	1,855	1,587	-14.5	383	289	387	445	356	399	404	428	372	+4.4
Iron & steel	719	1,056	+46.8	123	128	254	322	227	254	267	282	250	+10.1
Other industries ³	-	-		-	-	-	-	-	-	-	-	-	
Non-Energy Use ⁴	1,136	531	-53.2	260	161	134	123	129	145	138	146	122	-5.6

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 2017 heat generation figures currently shown are the 2016 figures carried forward - these will be updated in June 2018.

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