

Section 2 – Solid Fuels and Derived Gases

Key results show:

Overall coal production in the first quarter of 2018 fell to a new record low of 649 thousand tonnes, down 27 per cent (0.2 million tonnes) compared with the first quarter of 2017. Surface mining production fell to a new record low of 645 thousand tonnes as less coal was used for electricity generation. Some mines were not producing as they are restoring or under care and maintenance which also contributed to lower production. Coal production was at a record low in January 2018 **(Chart 2.1)**

Coal imports rose 30 per cent (0.7 million tonnes) on levels shown in the first quarter of 2017. **(Charts 2.1 and 2.2)**

The demand for coal by electricity generators in the first quarter of 2018 was 13 per cent (-0.5 million tonnes) lower than demand in the first quarter of 2017 due to generators favouring gas for economic reasons and increased wind generation. **(Chart 2.3)**

Total stock levels were down 34 per cent to 4.1 million tonnes compared to a year earlier. This was mainly due to closing power stations using up their stocks. **(Chart 2.4)**

Relevant tables

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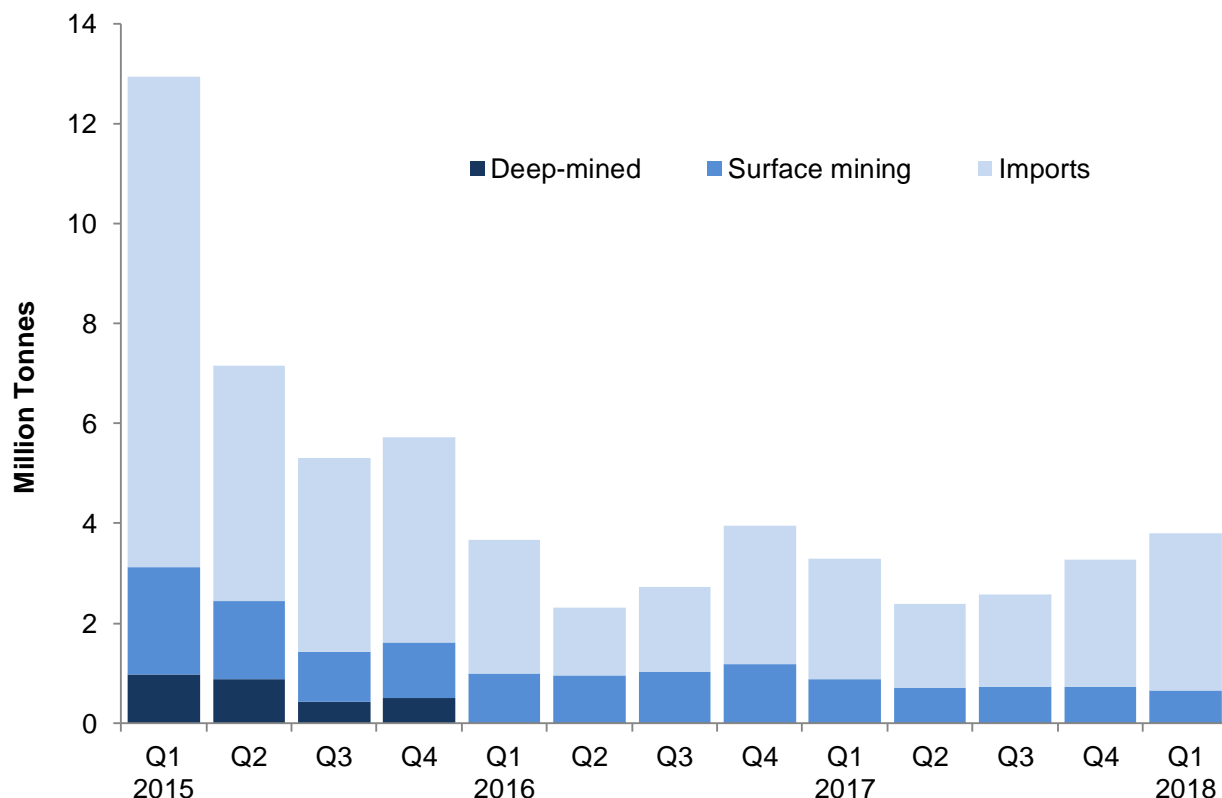
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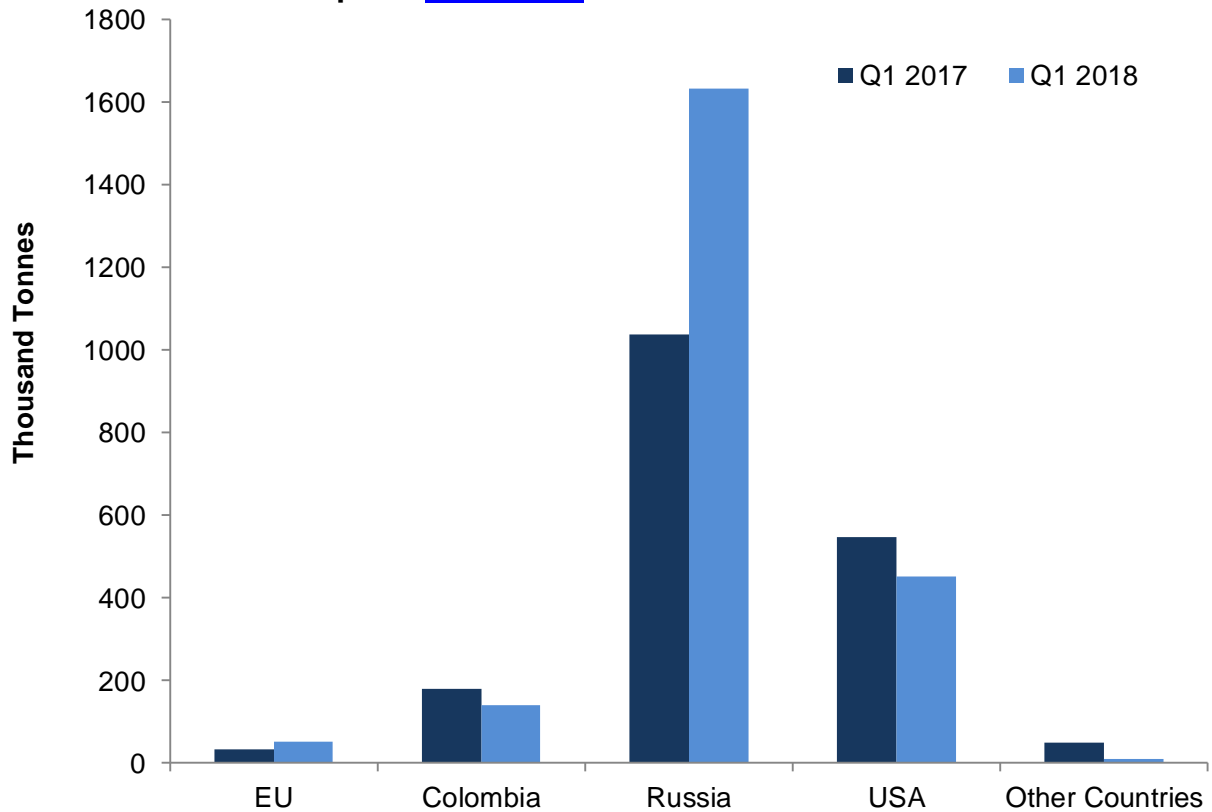
Chart 2.1 Coal supply (Table 2.1)

Coal production in the first quarter of 2018 reached a record low of 0.6 million tonnes, 27 per cent down compared to the first quarter of 2017. 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. Some mines were not producing as they are restoring or under care and maintenance which also contributed to lower production. Coal production was at a record low in January 2018.

Table 2A Coal imports by origin

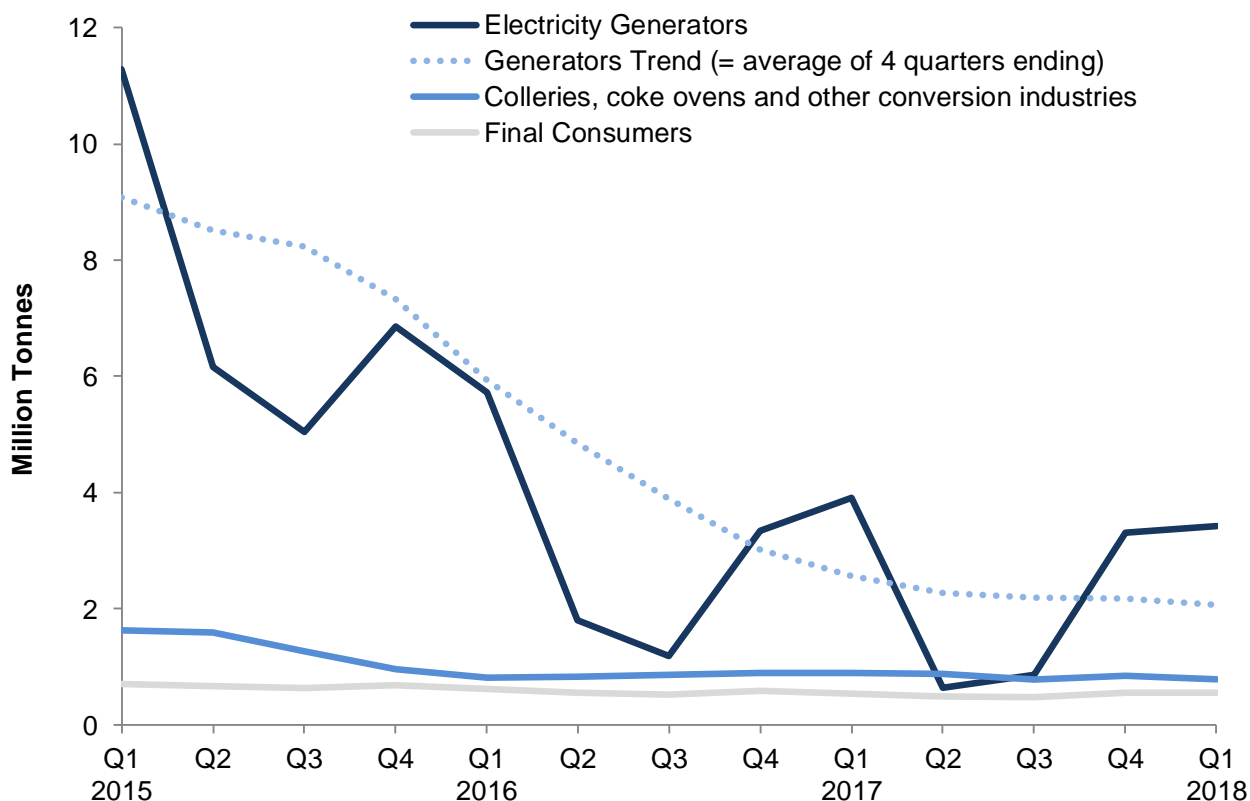
| | Thousand Tonnes | | | |
|----------------------|-----------------|--------------|--------------|--------------|
| | 2016 | 2017p | 2017 Q1 | 2018 Q1p |
| European Union | 439 | 356 | 46 | 77 |
| Russia | 2,292 | 3,883 | 1,341 | 1,886 |
| Colombia | 2,667 | 731 | 179 | 140 |
| USA | 1,420 | 2,352 | 726 | 645 |
| Australia | 778 | 749 | 56 | 288 |
| Other Countries | 898 | 427 | 65 | 108 |
| Total Imports | 8,494 | 8,498 | 2,412 | 3,145 |

Imports of coal in the first quarter of 2018 were 30 per cent higher than in the first quarter of 2017 at 3.1 million tonnes.

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

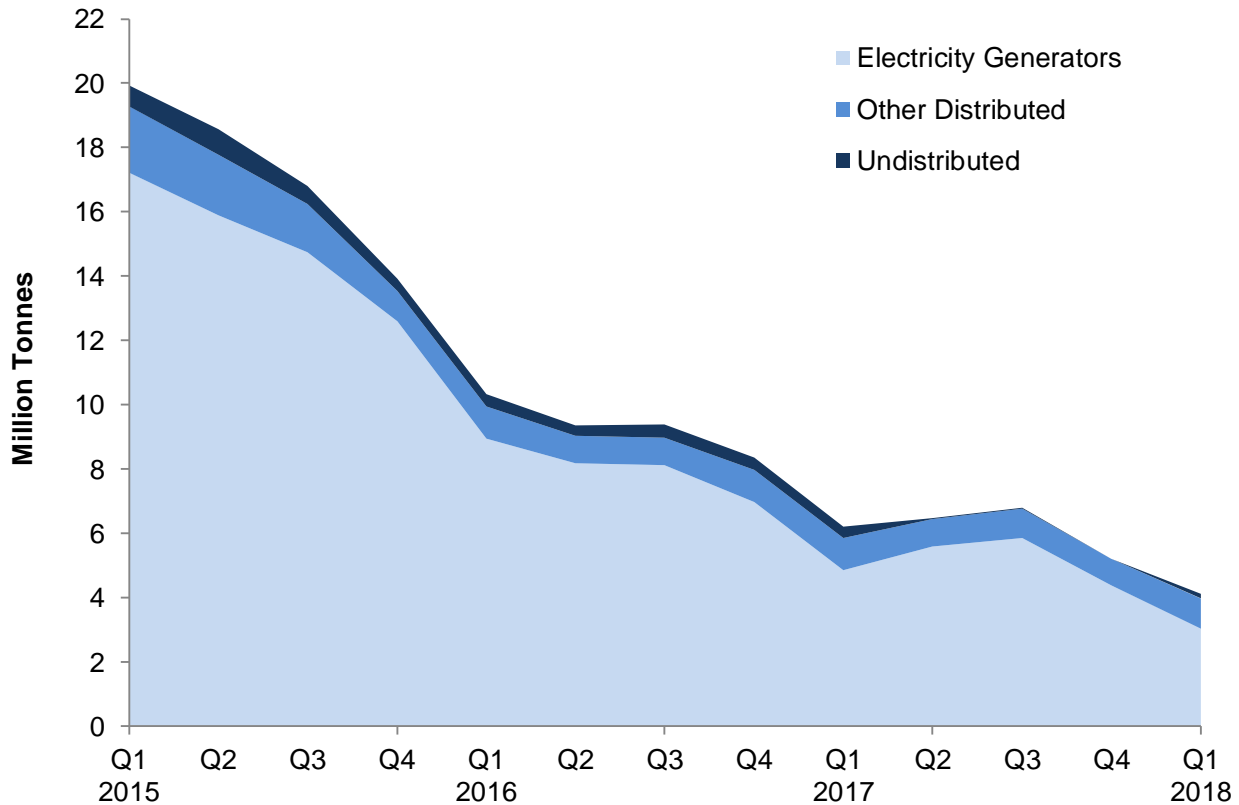
In the first quarter of 2018, total coal imports increased by 30 per cent to 3.1 million tonnes. Russia (60 per cent) and the USA (21 per cent) accounted for 81 per cent of total coal imports. Steam coal imports in the first quarter of 2018 rose by 28 per cent to 2.4 million tonnes. Steam coal imports accounted for 75 per cent of total coal imports. Coking coal imports in the first quarter of 2018 rose by 39 per cent to 0.8 million tonnes and accounted for 24 per cent of total coal imports.

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



Total demand for coal in the first quarter of 2018, at 4.8 million tonnes, was 11 per cent lower than in the first quarter of 2017 with the bulk of demand (72 per cent) relating to electricity generation. Consumption by electricity generators was down by 13 per cent to 3.4 million tonnes in the first quarter of 2017 due to generators favouring gas for economic reasons and increased wind generation.

In the first quarter of 2018, sales to industrial users rose by 2.5 per cent to 0.4 million tonnes whilst sales to other final consumers (including domestic) increased by 5.6 per cent to 0.2 million tonnes. Coal used in blast furnaces was down 19 per cent compared to the first quarter of 2017, to 0.3 million tonnes.

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

Coal stocks fell seasonally by 1.1 million tonnes during the first quarter of 2018 and at the end of March stood at 4.1 million tonnes (lowest value for at least 19 years). This was 2.1 million tonnes lower than at the end of March 2017.

The level of coal stocks at power stations at the end of the first quarter of 2018 was 3.0 million tonnes, 1.8 million tonnes lower than at the end of March 2017. This was mainly due to closing power stations using up their stocks.

Stocks held by coke ovens were 0.5 million tonnes at the end of the first quarter of 2018, this was 0.1 million tonnes higher than stock levels at the end of March 2017.

Stocks held by producers (undistributed stocks) at the end of the first quarter of 2018 were 0.1 million tonnes, 0.2 million tonnes lower than at the end of March 2017.

2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

In thousand tonnes

| | 2016 | 2017 p | per cent change | 2016 1st quarter | 2016 2nd quarter | 2016 3rd quarter | 2016 4th quarter | 2017 1st quarter | 2017 2nd quarter | 2017 3rd quarter | 2017 4th quarter | 2018 1st quarter p | per cent change ¹ |
|------------------------------------|---------|---------|--------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------------|---------------------------------|
| SUPPLY | | | | | | | | | | | | | |
| Indigenous production | 4,178 | 3,041 | -27.2 | 1,001 | 962 | 1,027 | 1,188 | 888 | 708 | 721 | 724 | 649 | -26.9 |
| Deep mined | 22 | 20 | -7.8 | 7 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | -18.5 |
| Surface mining ² | 4,156 | 3,021 | -27.3 | 994 | 957 | 1,022 | 1,183 | 883 | 702 | 716 | 720 | 645 | -27.0 |
| Imports ⁴ | 8,494 | 8,498r | - | 2,675 | 1,356 | 1,694 | 2,768 | 2,412 | 1,681 | 1,862 | 2,542r | 3,145 | +30.4 |
| Exports ⁵ | 443 | 495 | +11.6 | 103 | 76 | 137 | 128 | 120 | 100 | 142 | 133 | 144 | +19.4 |
| Stock change ⁶ | +5,547r | +3,159r | -43.1 | +3,590r | +952r | -7r | +1,012r | +2,170r | -281r | -315r | +1,585r | +1,096 | -49.5 |
| Total supply | 17,775r | 14,203r | -20.1 | 7,163r | 3,194r | 2,578r | 4,839r | 5,350r | 2,008r | 2,126r | 4,718r | 4,747 | -11.3 |
| Statistical difference | +30r | +19r | | +14r | +4 | +1 | +11 | +14r | +4r | +0r | +1r | -5 | |
| Total demand | 17,745r | 14,183r | -20.1 | 7,150r | 3,190r | 2,577r | 4,828r | 5,336r | 2,004r | 2,126r | 4,717r | 4,752 | -11.0 |
| TRANSFORMATION | 15,468r | 12,126r | -21.6 | 6,537r | 2,643r | 2,052r | 4,237r | 4,802r | 1,512r | 1,645r | 4,168r | 4,198 | -12.6 |
| Electricity generation | 12,056 | 8,724 | -27.6 | 5,721r | 1,808 | 1,186r | 3,341 | 3,907r | 638 | 864 | 3,315 | 3,418 | -12.5 |
| Heat generation ⁷ | 6r | 6r | - | 2r | 1r | 1r | 2r | 2r | 1r | 1r | 2r | 2 | - |
| Coke manufacture | 1,821 | 1,888 | +3.7 | 443 | 438 | 464 | 475 | 482 | 469 | 474 | 462 | 430 | -10.8 |
| Blast furnaces | 1,364 | 1,301 | -4.6 | 316 | 345 | 346 | 357 | 350 | 354 | 270 | 326 | 284 | -19.0 |
| Patent fuel manufacture | 223 | 207r | -7.1 | 55 | 51 | 55 | 62 | 59 | 48 | 36 | 63r | 65 | +8.6 |
| Energy industry use | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FINAL CONSUMPTION | 2,277r | 2,057r | -9.6 | 613r | 547r | 525r | 592r | 535r | 493r | 481r | 549r | 553 | +3.5 |
| Iron & steel | 35 | 33r | -5.7 | 10 | 10 | 7 | 7 | 9 | 9 | 8 | 7r | 4 | -52.9 |
| Other industries | 1,632r | 1,436r | -12.0 | 431 | 400r | 404r | 397r | 356r | 359r | 357r | 364r | 370 | +3.9 |
| Domestic | 550 | 535r | -2.6 | 156 | 123 | 101 | 171 | 156 | 113r | 103 | 164r | 165 | +5.9 |
| Other final users | 60r | 53r | -10.9 | 15 | 14r | 13r | 18r | 14 | 12r | 13r | 14r | 15 | +2.8 |
| Stocks at end of period | | | | | | | | | | | | | |
| Distributed stocks | 7,953r | 5,197r | -34.7 | 9,953r | 9,018r | 8,976r | 7,953r | 5,834r | 6,431r | 6,755r | 5,197r | 3,976 | -31.9 |
| Of which: | | | | | | | | | | | | | |
| Major power producers ⁸ | 6,962 | 4,387 | -37.0 | 8,933 | 8,163 | 8,125 | 6,962 | 4,838r | 5,589 | 5,834 | 4,387 | 3,039 | -37.2 |
| Coke ovens | 611r | 331r | -45.9 | 463r | 494r | 328r | 611r | 451 | 470r | 460r | 331r | 543 | +20.3 |
| Undistributed stocks | 406r | 4r | -99.1 | 363r | 345r | 395r | 406r | 355r | 39r | 31r | 4r | 128 | -63.8 |
| Total stocks⁹ | 8,359r | 5,200r | -37.8 | 10,316r | 9,364r | 9,370r | 8,359r | 6,189r | 6,470r | 6,785r | 5,200r | 4,104 | -33.7 |

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 2018 heat generation figures currently shown are the 2017 figures carried forward - these will be updated in June 2019.

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

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

| | Thousand tonnes | | | | | | | | | | | | |
|--|-----------------|--------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|------------------------------|
| | 2016 | 2017 p | per cent change | 2016 1st quarter | 2016 2nd quarter | 2016 3rd quarter | 2016 4th quarter | 2017 1st quarter | 2017 2nd quarter | 2017 3rd quarter | 2017 4th quarter | 2018 1st quarter p | per cent change ³ |
| SUPPLY | | | | | | | | | | | | | |
| Indigenous production | 1,593 | 1,580 | -0.8 | 376 | 385 | 409 | 424 | 408 | 384 | 395 | 393 | 377 | -7.6 |
| Coke Oven Coke | 1,332 | 1,361 | +2.2 | 320 | 319 | 344 | 348 | 346 | 337 | 343 | 334 | 313 | -9.6 |
| Coke Breeze | 16 | 18 | +11.8 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | -21.2 |
| Other MSF | 245 | 201 | -17.9 | 51 | 61 | 61 | 71 | 57 | 42 | 47 | 55 | 60 | +5.2 |
| Imports | 1,251 | 1,000 | -20.0 | 287 | 284 | 284 | 397 | 187 | 233 | 264 | 316 | 278 | +48.2 |
| Exports | 22 | 20 | -12.3 | 6 | 4 | 6 | 6 | 7 | 1 | 4 | 8 | 2 | -73.5 |
| Stock change ¹ | -126 | -3 | -97.7 | -2 | +21 | -15 | -130 | +65 | +17 | -25 | -60 | +19 | -70.0 |
| Transfers | -4 | -4 | | -1 | -1 | -0 | -2 | -1 | -1 | -1 | -1 | -1 | |
| Total supply | 2,691 | 2,554 | -5.1 | 654 | 685 | 671 | 682 | 652 | 632 | 628 | 642 | 671 | +2.8 |
| Statistical difference | 0 | -1 | | -0 | - | 0 | -0 | -0 | - | -0 | -0 | -0 | |
| Total demand | 2,691 | 2,554 | -5.1 | 654 | 685 | 671 | 682 | 652 | 632 | 628 | 642 | 671 | +2.8 |
| TRANSFORMATION | 2,140 | 2,017 | -5.8 | 525 | 548 | 533 | 535 | 508 | 507 | 502 | 499 | 537 | +5.7 |
| Coke manufacture | - | - | | - | - | - | - | - | - | - | - | - | |
| Blast furnaces | 2,140 | 2,017 | -5.8 | 525 | 548 | 533 | 535 | 508 | 507 | 502 | 499 | 537 | +5.7 |
| Energy industry use | - | - | | - | - | - | - | - | - | - | - | - | |
| FINAL CONSUMPTION | 551 | 538 | -2.5 | 130 | 137 | 138 | 146 | 144 | 126 | 125 | 143 | 133 | -7.3 |
| Iron & steel | 316 | 296 | -6.5 | 75 | 79 | 84 | 78 | 76 | 70 | 74 | 76 | 61 | -19.3 |
| Other industries | - | - | | - | - | - | - | 0 | 0 | 0 | -0 | 0 | |
| Domestic | 236 | 242 | +2.9 | 55 | 58 | 55 | 68 | 68 | 56 | 51 | 67 | 72 | +5.9 |
| Stocks at end of period² | 1,249 | 1,252 | +0.2 | 1,126 | 1,108 | 1,142 | 1,249 | 1,185 | 1,167 | 1,197 | 1,252 | 1,233 | +4.1 |

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%.

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

| | <i>GWh</i> | | | | | | | | | | | | |
|-------------------------------|----------------|----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------------------|
| | 2016 | 2017 p | <i>per cent change</i> | 2016 1st quarter | 2016 2nd quarter | 2016 3rd quarter | 2016 4th quarter | 2017 1st quarter | 2017 2nd quarter | 2017 3rd quarter | 2017 4th quarter | 2018 1st quarter p | <i>per cent change¹</i> |
| SUPPLY | | | | | | | | | | | | | |
| Indigenous production | 14,089 | 14,064 | -0.2 | 3,406 | 3,603 | 3,424 | 3,656 | 3,541 | 3,543 | 3,403 | 3,577 | 3,370 | -4.8 |
| Coke oven gas | 3,468 | 3,745 | +8.0 | 870 | 836 | 855 | 907 | 960 | 946 | 949 | 891 | 838 | -12.7 |
| Blast furnace gas | 10,090 | 9,763 | -3.2 | 2,403 | 2,645 | 2,439 | 2,603 | 2,444 | 2,451 | 2,332 | 2,536 | 2,396 | -2.0 |
| Benzole & tars | 531 | 556 | +4.7 | 134 | 123 | 129 | 145 | 138 | 146 | 122 | 150 | 136 | -1.2 |
| Transfers | 344 | 148 | -56.9 | 127 | 106 | 64 | 47 | 56 | 24 | 29 | 39 | 66 | +17.2 |
| Total supply | 14,433 | 14,213 | -1.5 | 3,534 | 3,709 | 3,487 | 3,703 | 3,597 | 3,568 | 3,431 | 3,616 | 3,436 | -4.5 |
| Statistical difference | +8r | +21r | | -4r | +12r | +7r | -8r | +5 | +0r | +8r | +7r | -9 | |
| Total demand | 14,425r | 14,192r | -1.6 | 3,538r | 3,697r | 3,480r | 3,711r | 3,592 | 3,567r | 3,423r | 3,609r | 3,445 | -4.1 |
| TRANSFORMATION | | | | | | | | | | | | | |
| Electricity generation | 6,291r | 6,043r | -3.9 | 1,523r | 1,536r | 1,507r | 1,725r | 1,586r | 1,519r | 1,427r | 1,511r | 1,704 | +7.5 |
| Heat generation ² | 13r | 13r | - | 3r | 3r | 3r | 3r | 3r | 3r | 3r | 3r | 3 | - |
| Energy industry use | 5,446 | 5,324 | -2.2 | 1,376 | 1,415 | 1,270 | 1,386 | 1,350 | 1,345 | 1,293 | 1,337 | 1,148 | -14.9 |
| Losses | 1,116 | 1,272 | +14.0 | 248 | 337 | 318 | 213 | 272 | 301 | 332 | 367 | 213 | -21.7 |
| FINAL CONSUMPTION | 1,572r | 1,552r | -1.3 | 391r | 409r | 385r | 388r | 384r | 402r | 370r | 395r | 379 | -1.3 |
| Iron & steel | 1,041r | 996r | -4.3 | 257r | 286r | 256r | 242r | 247r | 256r | 249r | 245r | 243 | -1.4 |
| Other industries ³ | - | - | | - | - | - | - | - | - | - | - | - | |
| Non-Energy Use ⁴ | 531 | 556 | +4.7 | 134 | 123 | 129 | 145 | 138 | 146 | 122 | 150 | 136 | -1.2 |

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 2018 heat generation figures currently shown are the 2017 figures carried forward - these will be updated in June 2019

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