

**Table F13. Delivered energy consumption in China by end-use sector and fuel, Reference case**

quadrillion British thermal units

| Sector and fuel                 | 2020         | 2025         | 2030         | 2035         | 2040         | 2045         | 2050         | Average annual percentage change, 2020–2050 |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------------------------|
| <b>Residential</b>              |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 2.0          | 1.9          | 2.0          | 2.1          | 2.2          | 2.3          | 2.3          | 0.6                                         |
| Natural gas                     | 2.4          | 2.7          | 3.2          | 3.3          | 3.5          | 3.5          | 3.7          | 1.5                                         |
| Coal                            | 3.5          | 3.3          | 3.2          | 3.1          | 3.0          | 3.0          | 2.9          | -0.6                                        |
| Electricity                     | 4.0          | 5.0          | 5.9          | 6.8          | 8.0          | 9.4          | 10.3         | 3.2                                         |
| Renewables                      | 0.8          | 0.9          | 0.9          | 0.9          | 1.0          | 1.0          | 1.1          | 0.8                                         |
| <b>Total</b>                    | <b>12.7</b>  | <b>13.8</b>  | <b>15.2</b>  | <b>16.3</b>  | <b>17.8</b>  | <b>19.2</b>  | <b>20.4</b>  | <b>1.6</b>                                  |
| <b>Commercial</b>               |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 0.8          | 0.7          | 0.8          | 0.8          | 0.8          | 0.9          | 0.9          | 0.3                                         |
| Natural gas                     | 0.7          | 0.8          | 0.9          | 1.0          | 1.1          | 1.1          | 1.1          | 1.5                                         |
| Coal                            | 0.9          | 0.9          | 0.8          | 0.8          | 0.8          | 0.8          | 0.8          | -0.6                                        |
| Electricity                     | 1.7          | 2.2          | 2.6          | 3.0          | 3.5          | 4.1          | 4.4          | 3.2                                         |
| Renewables                      | 0.1          | 0.1          | 0.1          | 0.1          | 0.1          | 0.1          | 0.1          | 0.8                                         |
| <b>Total</b>                    | <b>4.3</b>   | <b>4.7</b>   | <b>5.2</b>   | <b>5.7</b>   | <b>6.3</b>   | <b>6.9</b>   | <b>7.3</b>   | <b>1.8</b>                                  |
| <b>Industrial</b>               |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 12.0         | 14.0         | 15.1         | 15.9         | 16.3         | 16.5         | 16.5         | 1.1                                         |
| Natural gas                     | 5.6          | 6.4          | 6.7          | 6.9          | 7.0          | 7.2          | 7.3          | 0.9                                         |
| Coal                            | 41.0         | 40.4         | 39.1         | 37.7         | 36.5         | 35.6         | 34.9         | -0.5                                        |
| Electricity                     | 15.9         | 17.9         | 18.2         | 18.8         | 19.2         | 19.5         | 19.4         | 0.7                                         |
| Renewables                      | 2.6          | 3.2          | 3.2          | 3.2          | 3.2          | 3.1          | 3.0          | 0.4                                         |
| <b>Total</b>                    | <b>77.1</b>  | <b>81.8</b>  | <b>82.3</b>  | <b>82.4</b>  | <b>82.1</b>  | <b>81.8</b>  | <b>81.1</b>  | <b>0.2</b>                                  |
| <b>Transportation</b>           |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 14.2         | 16.5         | 17.1         | 16.6         | 15.7         | 14.7         | 13.7         | -0.1                                        |
| Natural gas                     | 0.7          | 1.0          | 1.5          | 1.9          | 2.4          | 3.0          | 3.4          | 5.6                                         |
| Coal                            | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0                                         |
| Electricity                     | 0.7          | 0.9          | 1.1          | 1.5          | 1.8          | 2.2          | 2.4          | 4.4                                         |
| Renewables                      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0                                         |
| <b>Total</b>                    | <b>15.5</b>  | <b>18.3</b>  | <b>19.6</b>  | <b>20.0</b>  | <b>19.9</b>  | <b>19.8</b>  | <b>19.6</b>  | <b>0.8</b>                                  |
| <b>All end-use sectors</b>      |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 28.9         | 33.1         | 35.0         | 35.4         | 35.0         | 34.3         | 33.4         | 0.5                                         |
| Natural gas                     | 9.4          | 10.9         | 12.2         | 13.1         | 14.0         | 14.8         | 15.6         | 1.7                                         |
| Coal                            | 45.5         | 44.5         | 43.1         | 41.6         | 40.3         | 39.3         | 38.5         | -0.6                                        |
| Electricity                     | 22.3         | 26.0         | 27.8         | 30.0         | 32.6         | 35.1         | 36.6         | 1.7                                         |
| Renewables                      | 3.5          | 4.1          | 4.2          | 4.3          | 4.2          | 4.2          | 4.1          | 0.5                                         |
| Delivered energy                | 109.6        | 118.7        | 122.3        | 124.4        | 126.2        | 127.7        | 128.3        | 0.5                                         |
| Electricity-related losses      | 47.0         | 49.9         | 51.5         | 55.4         | 59.9         | 64.5         | 67.3         | 1.2                                         |
| Discrepancy                     | -0.2         | 0.5          | 0.7          | 0.9          | 1.1          | 1.3          | 1.4          | --                                          |
| <b>Total</b>                    | <b>156.4</b> | <b>169.2</b> | <b>174.6</b> | <b>180.7</b> | <b>187.1</b> | <b>193.5</b> | <b>196.9</b> | <b>0.8</b>                                  |
| <b>Electric power</b>           |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 0.0          | 0.1          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | -7.4                                        |
| Natural gas                     | 2.5          | 4.2          | 5.2          | 5.5          | 5.9          | 6.5          | 6.8          | 3.3                                         |
| Coal                            | 48.8         | 46.4         | 42.0         | 42.0         | 42.0         | 42.0         | 42.0         | -0.5                                        |
| Nuclear                         | 3.3          | 4.4          | 5.7          | 7.1          | 8.3          | 9.5          | 10.5         | 3.9                                         |
| Renewables                      | 18.2         | 24.5         | 30.1         | 34.5         | 39.9         | 45.3         | 48.2         | 3.3                                         |
| <b>Total</b>                    | <b>72.9</b>  | <b>79.6</b>  | <b>83.0</b>  | <b>89.1</b>  | <b>96.2</b>  | <b>103.3</b> | <b>107.5</b> | <b>1.3</b>                                  |
| <b>Total energy consumption</b> |              |              |              |              |              |              |              |                                             |
| Liquid fuels                    | 28.6         | 33.4         | 35.2         | 35.6         | 35.2         | 34.5         | 33.6         | 0.5                                         |
| Natural gas                     | 11.5         | 14.7         | 16.9         | 18.1         | 19.5         | 20.8         | 22.0         | 2.2                                         |
| Coal                            | 90.7         | 87.5         | 81.8         | 80.3         | 79.0         | 78.0         | 77.2         | -0.5                                        |
| Nuclear                         | 3.5          | 4.6          | 5.9          | 7.4          | 8.7          | 9.9          | 10.9         | 3.9                                         |
| Renewables                      | 22.1         | 29.0         | 34.8         | 39.3         | 44.8         | 50.3         | 53.3         | 3.0                                         |

|              |              |              |              |              |              |              |              |            |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| <b>Total</b> | <b>156.4</b> | <b>169.2</b> | <b>174.6</b> | <b>180.7</b> | <b>187.1</b> | <b>193.5</b> | <b>196.9</b> | <b>0.8</b> |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run r\_210719.163829; and EIA, *Annual Energy Outlook 2021* , (February 2021), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Notes:

- \* Totals may not equal sum of components due to independent rounding.
- \* End-use sector electricity consumption does not include electrical system energy losses incurred in the generation, transmission, and distribution of electricity.
- \* End-use sector delivered energy consumption does not include electrical system energy losses incurred in the generation, transmission, and distribution of electricity.
- \* Electricity-related losses include energy losses during generation due to thermal efficiency, energy losses during transmission and distribution, and parasitic load.