

Table E9.gen. Electricity generation: Western Europe, High Zero-carbon Technology Cost case

billion kilowatthours

| Fuel | 2022 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | Average annual percentage change, 2022–2050 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| Liquid fuels | 97 | 97 | 67 | 50 | 37 | 36 | 36 | -3.5% |
| Natural gas | 777 | 792 | 792 | 750 | 718 | 690 | 676 | -0.5% |
| Coal | 501 | 447 | 270 | 259 | 248 | 344 | 343 | -1.3% |
| Nuclear | 734 | 723 | 733 | 727 | 720 | 702 | 702 | -0.2% |
| Renewables | 1,649 | 1,863 | 2,145 | 2,460 | 2,811 | 2,962 | 3,168 | 2.4% |
| Hydro | 621 | 697 | 706 | 753 | 756 | 756 | 756 | 0.7% |
| Wind | 474 | 544 | 623 | 691 | 937 | 953 | 984 | 2.6% |
| Geothermal | 22 | 38 | 52 | 51 | 51 | 57 | 57 | 3.4% |
| Solar | 209 | 184 | 315 | 477 | 539 | 626 | 758 | 4.7% |
| Other | 323 | 399 | 449 | 488 | 529 | 570 | 613 | 2.3% |
| Net generation to grid | 3,758 | 3,921 | 4,007 | 4,246 | 4,534 | 4,735 | 4,925 | 1.0% |

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz_230821.151430

Note: Totals may not equal sum of components due to independent rounding. Net generation to grid represents gross generation minus losses from thermal efficiency and parasitic load.