



BP Energy Outlook

Country and regional insights - Global

Global energy consumption grows by around 30% over the Outlook; the global economy nearly doubles in size; and energy intensity falls faster than at any time since at least 1965.

Fast facts

1. Renewables are the fastest growing fuel source, quadrupling over the next 20 years. Even so, fossil fuels remain the dominant source of global energy supplies (77%) in 2035.
2. Energy demand within the OECD barely grows over the Outlook. By 2035, the OECD accounts for only a third of global primary energy demand, down from a half in 2007 and two-thirds in 1979.
3. By 2035 coal accounts for less than 25% of primary energy, its lowest share since the industrial revolution.

+1.3%

Annual growth in global energy consumption

50%

Fossil fuels contribution to global primary energy growth

+291%

Growth in renewables over the outlook

+0.6%

Annual growth in global CO₂ emissions for energy use

- World energy demand is projected to grow by 1.3% p.a. from 2015 to 2035. Virtually all of this growth comes from emerging economies, with China and India accounting for over half the increase.
- Global energy intensity (the ratio of energy demand to GDP) is projected to decline by 2% p.a. over this period – faster than in any 20-year period since our data began in 1965.
- Gas grows faster than coal and oil, (1.6% p.a.), overtaking coal to become the second-largest global fuel source by 2035. Oil remains the dominant global fuel and continues to grow (0.7% p.a.) but at a slowing pace. Coal growth slows sharply (0.2% p.a.), well below the average growth of the previous 20 years (2.7% p.a.). Coal demand peaks in the mid-2020s.
- Nuclear, hydro and other renewables together account for half of the growth in energy supplies over the next 20 years, with their share in primary energy rising from 15% to 23% by 2035.
- Solar and wind are the two fastest growing fuels, with solar rising more than eightfold and wind more than fourfold over the Outlook.
- Nearly two thirds of the increase in global energy demand is for power generation, as the world economy continues to electrify.
- Global liquids demand (oil, biofuels and other liquids) increases by around 15 Mb/d to reach 110 Mb/d by 2035. The transport sector accounts for about two-thirds of this increase in demand.
- Global oil production becomes geographically more concentrated as low cost producers gain share. The Middle East, US, and Russia account for 63% of oil production in 2035, up from 56% in 2015.
- Shale gas accounts for around two-thirds of the growth in global gas supplies over the Outlook and a quarter of global gas supplies by 2035.
- Liquefied natural gas grows nearly three times faster than international gas trade, so by 2035 LNG accounts for around half of all globally traded gas.
- CO₂ emissions from energy use continue to grow, rising by 13% by 2035. This is despite emissions growing at less than a third of the rate seen in the past 20 years (0.6% p.a. vs 2.1% p.a.).



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	Level		Shares		Change (abs.)		Change (%)		Change (annual)*	
	2015	2035	2015	2035	1995-2015	2015-2035	1995-2015	2015-2035	1995-2015	2015-2035
Primary energy consumption (units in Mtoe unless otherwise noted)										
Total	13147	17157			4559	4010	53%	31%	2.2%	1.3%
Oil†(Mb/d)	93	106	32%	29%	23	14	32%	15%	1.4%	0.7%
Gas (Bcf/d)	336	462	24%	25%	129	127	63%	38%	2.5%	1.6%
Coal	3840	4032	29%	24%	1595	193	71%	5%	2.7%	0.2%
Nuclear	583	927	4%	5%	57	344	11%	59%	0.5%	2.3%
Hydro	893	1272	7%	7%	330	379	59%	42%	2.3%	1.8%
Renewables (including biofuels)	439	1715	3%	10%	394	1276	870%	291%	>10%	7.1%
Power	5519	7997			2241	2478	68%	45%	2.6%	1.9%
Supply										
Oil† (Mb/d)	95	107			25	12	37%	12%	1.6%	0.6%
Gas (Bcf/d)	342	462			138	120	68%	35%	2.6%	1.5%
Coal	3830	4151			1568	321	69%	8%	2.7%	0.4%

*Compound annual growth rate

†Oil supply includes crude oil, shale oil, oil sands, natural gas liquids, liquid fuels derived from coal and gas, and refinery gains, but excludes biofuels. Oil demand includes consumption of all liquid hydrocarbons, but excludes biofuels.