

Renewable energy share of worldwide electricity

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|---------------------------------------|-------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Worldwide consumption 2017 | 24000 | TWh | https://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf |
| Growth rate | 3% | | |
| PV installed capacity end 2017 | 400 | GW | http://www.irena.org/home/index.aspx?PriMenuID=12&mnu=Pri |
| Average PV growth rate over 5 years | 28% | | |
| PV average capacity factor | 15% | | Conservative. Single axis tracking PV in Australia will typically have a CF = 22% |
| PV electricity production | 526 | TWh | Capacity * CF * 8.76 |
| Wind installed capacity end 2017 | 542 | GW | http://www.irena.org/home/index.aspx?PriMenuID=12&mnu=Pri |
| Average wind growth rate over 5 years | 13% | | |
| Wind average capacity factor | 25% | | Conservative. New 3MW turbines in Australia will typically have a CF = 40% |
| Wind electricity production | 1187 | TWh | Capacity * CF * 8.76 |
| Wind + PV electricity production | 1713 | TWh | |

PV/wind share of Electricity generation 7.1%

Full electrification of energy supply will approximately triple electricity demand

PV/wind share of energy supply 2.4% One third of its share of electricity production

At current growth rates renewables exceeds 100% of worldwide electricity production in 2032

At current growth rates PV + wind exceeds 50% of worldwide electricity production in 2029.

Renewables other than PV/wind (mainly hydro) account for 19% of worldwide electricity production

| Year | PV Instal | GW Cum Instal | TWh Prodn | Wind | | | Wind+PV | | Other RE | Demand | | Renewables | Renewables % |
|------|--------------|------------------|--------------|--------|------------------|--------------|--------------|---------|----------|--------------|-------|------------|-----------------|
| | | | | Instal | GW Cum Instal | TWh Prodn | TWh Prodn | Wind+PV | | TWh World | | | |
| 2012 | 30 | 100 | 131 | 40 | 283 | 620 | 751 | 3.6% | 3919 | 20628 | 4671 | 23% | |
| 2013 | 39 | 133 | 175 | 45 | 331 | 725 | 900 | 4.2% | 4041 | 21266 | 4940 | 23% | |
| 2014 | 44 | 177 | 233 | 51 | 382 | 837 | 1069 | 4.9% | 4166 | 21924 | 5235 | 24% | |
| 2015 | 50 | 227 | 298 | 63 | 433 | 948 | 1247 | 5.5% | 4294 | 22602 | 5541 | 25% | |
| 2016 | 73 | 300 | 394 | 55 | 487 | 1067 | 1461 | 6.3% | 4427 | 23301 | 5888 | 25% | |
| 2017 | 100 | 400 | 526 | 55 | 542 | 1187 | 1713 | 7.1% | 4560 | 24000 | 6273 | 26% | |
| 2018 | 128 | 528 | 693 | 62 | 604 | 1323 | 2017 | 8.2% | 4697 | 24720 | 6713 | 27% | |
| 2019 | 163 | 691 | 908 | 70 | 674 | 1477 | 2385 | 9.4% | 4838 | 25462 | 7222 | 28% | |
| 2020 | 208 | 899 | 1182 | 79 | 754 | 1651 | 2832 | 10.8% | 4983 | 26225 | 7815 | 30% | |
| 2021 | 266 | 1165 | 1531 | 90 | 843 | 1847 | 3378 | 12.5% | 5132 | 27012 | 8511 | 32% | |
| 2022 | 340 | 1505 | 1978 | 101 | 945 | 2069 | 4047 | 14.5% | 5286 | 27823 | 9333 | 34% | |
| 2023 | 434 | 1939 | 2548 | 114 | 1059 | 2320 | 4868 | 17.0% | 5445 | 28657 | 10313 | 36% | |
| 2024 | 555 | 2494 | 3277 | 129 | 1189 | 2603 | 5880 | 19.9% | 5608 | 29517 | 11488 | 39% | |
| 2025 | 708 | 3202 | 4208 | 146 | 1335 | 2923 | 7131 | 23.5% | 5776 | 30402 | 12907 | 42% | |
| 2026 | 905 | 4107 | 5397 | 165 | 1500 | 3285 | 8682 | 27.7% | 5950 | 31315 | 14631 | 47% | |

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|------|------|-------|-------|-----|------|------|-------|-------|------|-------|-------|------|
| 2027 | 1156 | 5263 | 6915 | 187 | 1687 | 3694 | 10609 | 32.9% | 6128 | 32254 | 16737 | 52% |
| 2028 | 1476 | 6739 | 8855 | 211 | 1897 | 4155 | 13010 | 39.2% | 6312 | 33222 | 19322 | 58% |
| 2029 | 1885 | 8624 | 11332 | 238 | 2136 | 4677 | 16009 | 46.8% | 6501 | 34218 | 22510 | 66% |
| 2030 | 2408 | 11032 | 14495 | 269 | 2405 | 5267 | 19763 | 56.1% | 6697 | 35245 | 26459 | 75% |
| 2031 | 3075 | 14107 | 18537 | 304 | 2709 | 5933 | 24470 | 67.4% | 6897 | 36302 | 31367 | 86% |
| 2032 | 3928 | 18035 | 23698 | 344 | 3053 | 6686 | 30384 | 81.3% | 7104 | 37391 | 37489 | 100% |