

Testing Program Output

Case	Program Output
World power change between 2000 and 2021	<p>The total world power generation in 2000 was 14978.39 terawatt-hours.</p> <p>The total world power generation in 2021 was 27549.010000000002 terawatt-hours.</p> <p>Between years 2000 and 2021 the world power generation increased by 83.92504134289467%.</p>
Hydropower change between 2000 and 2021	<p>In year 2000, 2625.18 twh came from Hydro accounting for 17.526449771971485% of world power.</p> <p>In year 2021, 4205.31 twh came from Hydro accounting for 15.264831658197517% of world power.</p> <p>Between years 2000 and 2021 the Hydro power generation changed by 60.19130116791994%.</p>
Other energy source: Nuclear	<p>The total world power generation in 2000 was 14978.39 terawatt-hours.</p> <p>The total world power generation in 2021 was 27549.010000000002 terawatt-hours.</p> <p>Between years 2000 and 2021 the world power generation increased by 83.92504134289467%.</p> <p>In year 2000, 2505.93 twh came from Nuclear accounting for 16.730302789552148% of world power.</p> <p>In year 2021, 2735.5 twh came from Nuclear accounting for 9.9295764167206% of world power.</p> <p>Between years 2000 and 2021 the Nuclear power generation changed by 9.161069942097352%.</p>
Other energy source: Gas	<p>The total world power generation in 2000 was 14978.39 terawatt-hours.</p> <p>The total world power generation in 2021 was 27549.010000000002 terawatt-hours.</p> <p>Between years 2000 and 2021 the world power generation increased by 83.92504134289467%.</p> <p>In year 2000, 2691.5 twh came from Gas accounting for 17.969220991041094% of world power.</p> <p>In year 2021, 6115.09 twh came from Gas accounting for 22.19713158476475% of world power.</p> <p>Between years 2000 and 2021 the Gas power generation changed by 127.20007430800668%.</p>

Analysis of the Output

World power generation has increased immensely over the past 20 years (83%). This is due to the ever-increasing demands of societies, with the improving life conditions and growing populations. Almost all the energy sources are now used more (except Other Fossil), but that is due to the increase in the total world power. A suitable way to check which power we are now using more of is to compare their contribution to the total world power between 2000 and 2021. The sources we are using more of are clean energy sources, such as bioenergy, wind, and solar, whose contribution increased considerably from 0.999% to 2.33%, from 0.208% to 6.58%, and from 0.007% to 3.71% respectively. Examples of the sources we are using less of are coal and other fossils, whose contribution decreased from 38% to 36% and from 8% to 3% respectively. Overall, although we are using more of fossil and non-clean resources, their contribution to the total world power has become less whereas the clean resources' contribution has increased. This is rather a desirable and sustainable change, although a more dramatic movement towards clean resources is required to produce a positive change in the near future.