**International Power Rangers – Summary**

**Who is the real Powerhouse?**

**An exploration analysis of global energy production by Nick, Mike, Aline & Carly**

**Topic Exploration:**

It’s a power-hungry world that we live in. Everyone uses power to live but how do we make it?

The answer is powerplants, and lots of them!

In this analysis we will take a dive into how the world produces its power. Who produces the most and who is the cleanest? We will explore how developed countries stack up against developing countries in their production and their sustainability? And what does the data tell us in perspective of the current global energy crisis?

**Data Type: International Energy Sector**

* Base Data Source: https://datasets.wri.org/dataset/globalpowerplantdatabase
* 2nd Data Source: <https://data.worldbank.org/indicator/NY.GNP.PCAP.CD>
* 2nd Data Source further info: UN classification for this bin

**Questions:**

* What are the most commonly used power sources globally?
* Do developing or developed nations produce more power per capita?
* Do developing or developing nations use more renewable or non-renewable energy sources?
* Google API plots

– Comparing the two most popular renewable energy sources comparing devolving with developed countries.

– Comparing the two most popular Non-renewable energy sources comparing devolving with developed countries.

**What are the most com****monly used power sources globally?**

Hydro and Solar were the two most predominant fuel sources for power plants for both developing and developed countries.

The top 3 fuel sources for power plants globally were all renewable sources. (Solar: 30.6%, Hydro: 20.5% and Wind: 15.3%)

Coal, Gas and Oil combined made up less the 25% of global power plant fuel sources which means Solar alone is used 5% more than these world-wide as a fuel source for powerplants.

Chart, pie chart

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Do developing or developed nations produce more power per capita?

Chart, pie chart

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**Do developing or developing nations use more renewable or non-renewable energy sources?**

Comparing developed and developing countries primary fuel source shows that both developed and developing countries rely majorly on renewable sources as primary fuel. Developed countries have a higher use of renewable energy than developing Countries.

Developed countries have more than double the number of solar plants compared to developing countries. This trend is also seen throughout the other renewable fuel sources.

Chart, bar chart

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Google Map APIs

Comparing the two most popular renewable energy sources comparing devolving with developed countries

The two most popular renewable power sources for developed Countries are hydro and solar power plants. Looking at the map of developed countries comparing hydro and solar power as energy use the number of hydro power plant is more widely spread in terms of land mass than solar, even though solar has the high number of power plants. Comparing Europe and the US indicates an even balance between hydro and solar power plants. Comparing Australia with Europe and the US shows that Australia is mainly reliant on hydro power plants.

Graphical user interface

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The two most popular renewable power sources are also hydro and solar power. Developing countries also indicate a wider spread of hydro power plants, whereas solar plants are condensed to specific regions.

Comparing the two most popular Non-renewable energy sources comparing devolving with developed countries.

Map

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Comparing the two most popular non-renewable energy sources comparing devolving with developed countries

The two most popular non-renewable power sources for develop countries are gas and oil. In terms of territory gas power plants are more widely spread whereas oil power plants are condensed to specific regions.

Map

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The two most popular non renewable energy sources in developing countries are coal and gas. Coal power plants are more widely spread than gas power plants.

Map

Description automatically generated

Conclusion

Overall, it seems that the world has moved towards producing energy more sustainably by using more renewable fuel sources to run their power plants. Looking at the current global power shortage will what we have been doing so far be enough for everyone to keep using power as we currently do?