

Rank		Solar [GW]	Hydro [GW]	Wind [GW]	Biomass [GW]	Total [GW]
1	Kazakhstan	3,760 ^[17]	21 ^[1]	354 ^[17]	0.3 ^[17]	4,135
2	China	>3,000 ^[21]	540 ^[19]	253 ^[20]	75 ^[22]	3,868
3	Pakistan	2,900 ^[3]	60 ^[12]	>20 ^[5]		2,960
4	Mongolia		6.2–6.4 ^[9]	1,100 ^[10]		2,600 ^[11]
5	India	750 ^[4]	150 ^[6]	103 ^[7]	68 ^[8]	1,071
6	Poland	290 ^[17]	11.95 ^[2]	620 ^[17]	28.8 ^[17]	951
7	Ukraine	807 ^[17]		26.8 ^[17]	24.5 ^[17]	859
8	Turkmenistan	655 ^[17]		10 ^[17]		665
9	Indonesia	532 ^[18]	75 ^[13]	113.5 ^[18]	32 ^[18]	752.5
10	Uzbekistan	593 ^[17]	12 ^[14]	1.6 ^[17]	0.8 ^[17]	607.4
11	Viet-Nam		35 ^[16]	500 ^[15]		535

[1] As only about 13% of the hydro generation potential of estimated 62,000 GWh is developed so far, there are vast opportunities offered.
<https://www.andritz.com/hydro-en/hydronews/southeast-asia/kazakhstan-hydropower>

[2] The gross **hydropower potential** of **Poland** is estimated as 25 TWh/annum which is really a moderate value as for a country with ca 312 500 km² surface area.

[3]Ghafoor, A., Rehman, T.u., Munir, A., Ahmad, M. & Iqbal, M. 2016, "Current status and overview of renewable energy potential in Pakistan for continuous energy sustainability", Renewable and Sustainable Energy Reviews, vol. 60, pp. 1332–1342.

[4] released document by the Ministry of New & Renewable Energy (MNRE)
<https://cleantechnica.com/2014/11/29/indias-solar-power-potential-estimated-750-gw/>

[5] Pakistan have the coastal line of Sindh, which has abundant sources of wind up to 20 GW electricity generation potential. Baloch, M.H., Kaloi, G.S. & Memon, Z.A. 2016, "Current scenario of the wind energy in Pakistan challenges and future perspectives: A case study", Energy Reports, vol. 2, pp. 201–210.

[6] India Hydro Energy, <http://www.eai.in/ref/ae/hyd/hyd.html>

[7] Wind Power Programme, Ministry of New and Renewable Energy,
<https://mnre.gov.in/wind>

[8] BIOMASS POWER AND COGENERATION PROGRAMME, Ministry of New and Renewable Energy,
<https://mnre.gov.in/biomass-powercogen>

[9]Total power capacity potential 6417.7 MW • Able to deliver 56.2 billion kWh energy per year.
http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2016_events/AG3_4th_Bioenergy_Week_21-24_May_2016_Budapest/28_SAMBALKHUNDEV_23_JUNE.pdf

Theoretical potential 6.2 GW, more than 1 GW of these has been identified(Asia Solar Radiation)<https://eneken.ieej.or.jp/data/6234.pdf>

[10] Wind resources assessment made by NREL (USA) 2001. Good-to-excellent wind resources equivalent to 1,100 GW of wind electric potential.

Potential to deliver over 2.5 trillion kWh per year.

[http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2016_events/AG3_4th Bioenergy Week 21-24 May 2016 Budapest/28 SAMBALKHUNDEV 23 JUNE.pdf](http://www.globalbioenergy.org/fileadmin/user_upload/gbep/docs/2016_events/AG3_4th_Bioenergy_Week_21-24_May_2016_Budapest/28_SAMBALKHUNDEV_23_JUNE.pdf)

[11] The U.S. National Renewable Energy Laboratory estimates that Mongolia has 2.6 terawatts (TW) of total renewable energy potential. <https://www.export.gov/article?id=Mongolia-Energy-Generation>

[12]According to Pakistan's Water and Power Development Authority (WAPDA), there is 60,000 MW of hydropower potential in the country, of which only 7,320 MW has been developed. <https://www.hydropower.org/country-profiles/pakistan>

[13]International Hydropower Association, <https://www.hydropower.org/country-profiles/indonesia>

[14] The Asian Development Bank, or ADB, estimates that only 1,800 megawatts of Uzbekistan's 12,000 megawatt hydropower potential is currently developed. <https://eurasianet.org/s/uzbekistan-plans-its-own-hydropower-plant>

[15]世界银行编制的越南、泰国、老挝和柬埔寨风电能源地图显示，越南风电发电能力超过50万千瓦，而越南目前的发电功率仅为2.5万千瓦。

<http://www.fenglifadian.com/news/world/15331FCA8.html>

[16]These rivers provide an abundant hydropower technical potential that has been estimated at 35 GW, and the current economic potential at 19–21 GW with 1–3 GW of the total available as micro-hydropower.

<https://www.hydropower.org/country-profiles/vietnam>

[17] Renewable Energy Snapshots, UNDP, http://www.eurasia.undp.org/content/rbec/en/home/library/environment_energy/renewable-energy-snapshots.html

[18] Renewable Energy for Indonesia 2017, <https://www.ojk.go.id/sustainable-finance/id/publikasi/riset-dan-statistik/Pages/RENEWABLE-ENERGY-FOR-INDONESIA-2017.aspx>

[19] 云南水电：产能过剩还是远虑深谋？

<https://www.chinadialogue.net/article/show/single/ch/9760-Hydropower-boom-in-China-and-along-Asia-s-rivers-outpaces-electricity-demand>

[20] 中国常规能源构成：风能资源

<http://finance.ifeng.com/news/special/zgnyfzzl/20110320/3705052.shtml>

[21] SOLAR ENERGY IN CHINA,

https://ens.dk/sites/ens.dk/files/Globalcooperation/china_solar.pdf

[22] Biomass energy in China and its potential, Li Jingjing, 2001, etc. , [https://doi.org/10.1016/S0973-0826\(08\)60286-0](https://doi.org/10.1016/S0973-0826(08)60286-0)