

New Nuclear Report Is a Lesson in Global Inequalities

by Paul Gallagher

Nov. 11—The World Nuclear Association published its annual “World Nuclear Performance [Report](#)” in October on the ongoing construction, connection and shut-down of civilian nuclear power reactors around the world.

Taken on a global basis, the report does not show much progress for nuclear power capacity in 2018. But in total electric power generated by nuclear reactors, there was a big jump in three Asian countries, China, Japan, and South Korea. The report, together with other information on electric power performance around the world, demonstrates a huge global gap between the quality and reliability of nuclear power, and that of wind and solar—which now account for most of the electric power capacity being added in the world under the deindustrialization and depopulation policies of “climate finance.”

Nine new reactors were completed and connected to grids worldwide in 2018—about a third of the international nuclear industry’s capacity to build them. Five reactors were taken off-grid in Europe, the United States and Japan, however, so the net worldwide gain was just four reactors and 4,000 megawatts (MW) of electric power. These represented increases of just 1% in each case. Construction was *started* on only five nuclear power plants during 2018, making a total of 55 under some stage of construction.

But the *amount of power generated* by the world’s nuclear reactors grew by 9% in 2018 to 2.6 billion MW hours for the year. In Asia that power generation growth was a full 12% for the year. Why? Because if you want to bring electricity to people and make their economies grow, nuclear power works far better than wind and solar—and so does coal power.

In fact, as of 2018, nuclear reactors represented just one-seventeenth of the world’s electricity capacity of 7 million MW; but they generated one-eighth of the elec-

tricity used by the world’s population in that year, which was 21 billion MW hours of power. Nuclear reactors pulled more than double their weight compared to the world average performance of an electric power source.

The Productivity of Power

The reason is clear: Most of the power capacity being added to electricity grids around the world is wind and solar. Environmental lobbyists and solar producers brag that this means these throwback technologies are no longer throwbacks, but have taken great



Sanmen Nuclear Power Station, located in Zhejiang, China.

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leaps in efficiency, lowered cost, etc. However, the facts, up to 2018, are otherwise. Total solar power *capacity* reached 450,000 GW in 2018, but this capacity *generated* just 500 million MW-hours of electricity use. Thus, with solar, about 6% of the world’s installed capacity in 2018 generated just 2% of world electricity use. With nuclear, as we noted above, about 6% of the world’s installed capacity generated 12% of world electricity use. With wind power, 8% of the world’s installed capacity generated just 4.4% of electricity use.

That means that most of what is being added to the world population’s electric power sources each year, is essentially “junk power” compared to far more efficient, reliable and energy-dense nuclear power. The “junk power” continues to be added in larger and larger

amounts because of the growing influence of environmental fraud on governments and businesses, and through the domination of considerations of immediate capital cost, disregarding the quality and productivity of power, its useful lifetime, land use, etc.

Nuclear plants operate with normal periodic maintenance for 50 years, three to four times as long as wind turbines or solar panels, before incurring the capital cost of replacement. Moreover, solar farms need 15 times the land area nuclear plants need for the same capacity, and 50 times the area needed by nuclear to generate the same amount of power; wind farms need 150 times the area for the same capacity, and 300 times as much area for the same [generation](#).

So, for a given area of land dedicated to generation of electricity, nuclear power has *hundreds of times greater energy density and power density* than these forms of “junk power.” Electricity per capita and per area of land is the most important underpinning of economic development. Nuclear is the highest quality and most productive form of electricity generation available so far; more advanced fission reactors and, above all, fusion power reactors will surpass existing fission technologies.

Thus it is a travesty that the prefecture of Fukushima in Japan, where a nuclear reactor was sent into a partial meltdown by an earthquake and deadly tsunami in 2011—the tsunami killed 25,000 people, the nuclear meltdown, none—is planning to build ten solar arrays and 11 wind turbines on the area around the remaining undamaged reactor. The reactor, which is shut down and will remain so, has a capacity of 1,200 MW electric, and would generate ten times as much electrical power for the residents of surrounding areas, as the planned wind and solar junk.

China Leading

In Asia, three countries dominate the growth of nuclear power, and also lead the world in this. China outpaced the world in connecting new reactors, adding seven reactors in 2018 with 8,300 MW new capacity to its grid, and *nuclear electricity generation rose 19%* in that one year, to 275 million megawatt hours.

Nuclear electricity generation in China in 2018 was 4.5 times the level it was during the financial crash year 2008, the point at which China began to issue new *productive* credit through its large state commercial banks

at a record rate, and since which time it has driven the world’s economic growth, according to UN and IMF reports.

India and Pakistan are the other countries with rapid growth in power generation by nuclear reactors—nearly tripled since 2008 in India; and quadrupled in Pakistan—although these countries have an order of magnitude less installed nuclear capacity than does China.

In China, the comparison between nuclear power efficiency and that of wind and solar is crystal clear. All three forms of electricity are widely deployed there. On average, each kilowatt of installed nuclear capacity generated six megawatt hours of electricity during 2014, compared to four megawatt hours for coal and three megawatt hours for hydroelectric power; by contrast, in the same year, each kilowatt of installed solar power generated, on average, just one-third of a megawatt hour!

So, before taking account of the large land areas solar and wind farms take up, nuclear reactors in China in 2014 were 18 times as productive as solar farms;



USAF

A 14 MW solar photovoltaic array at Nellis Air Force Base, Nevada.

coal-fired reactors 12 times as productive.

The sabotage of nuclear reactor construction, with hyper-regulation and environmentalist blocking actions causing huge delays and added costs outside a few Asian countries, has created a loss of capacity which is a tragedy for underdeveloped countries’ populations. The overall pace of connection of nuclear reactors is negligible compared to the estimated 10 million MW of new power needed worldwide, to close the fatal gaps in electricity use per capita which shorten lives, and cause unnecessary deaths, of many millions. If this continues, and the “climate finance” campaign of Michael Bloomberg, Mark Carney and the like to shut down coal-fired power production succeeds, the result will be genocidal.