

Going Nuclear Is the Answer, Brazil Finds Out

Contributed by Alana Gandra
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Although Brazil has an enormous hydroelectric potential (estimated at almost 260,000 MW), only 68,000 MW of the electricity the country uses comes from hydroelectric power plants.

Most of the hydroelectric potential is in the North region of the country, in the Amazon rainforest. But while the total amount of electricity that could be generated there is 112,000 MW, only 7,000 is actually generated.

In the middle of the country, in the Southeast and Central-West regions, the potential is 70,000 MW, but less than half that, 31,000 MW, is effectively generated.

"The problem is that the use of our huge hydro potential creates socio-environmental conflicts," points out the president of Eletronuclear, Paulo Figueiredo.

In a speech this week at the American Chamber of Commerce in Rio de Janeiro, he went on to say that what Brazil needs is nuclear energy because it has become the country's most viable alternative.

With regard to pollution, specifically the emission of greenhouse gases, such as carbon dioxide, Figueiredo explained that each KW/hour of energy generated by burning coal emitted 955 grams, thermoelectric power plants burning diesel 818 grams and power plants using natural gas 446 grams.

On the other hand, he said, a KW/hour of energy generated by a nuclear power plant emits a grand total of exactly 4 grams of carbon dioxide.

Figueiredo went on to report that at the moment 40% of the electricity generated in the world comes from coal-burning power plants, 15% from gas-burning plants and 10% from diesel.

What that means, he explained, is that 65% of the world's electricity creates pollution as it is generated.

He also mentioned that out of the 191 nations that are members of the UN, 31 use nuclear energy to generate electricity in a total of 440 nuclear power plants.

Out of that total, 214 of them use what are known as pressurized light water reactors, which are similar to those used in the two nuclear power plants in operation in Brazil (Angra 1 and 2) and will be used in the future in another plant (Angra 3), which is under construction.

With regard to Angra 3, Figueiredo revealed that it has already cost US\$ 723 million and that it is estimated that another US\$ 2.2 billion will be needed to complete it.

Finally, Figueiredo pointed out that only 3% of the electricity generated in Brazil comes from nuclear power plants. In France, 78% comes from nuclear power plants and in China over 12%.

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