



Another problem, as yet unresolved, is waste. Because of the high cost of reprocessing spent fuel, the government has said that new reactors should be built on the assumption that fuel will be disposed, and that funds for this must be set aside by the operators.

The UK is not alone in pursuing next-generation nuclear power stations. India, Vietnam, and to a smaller extent Czechoslovakia, Poland, and France are all planning new reactors, according to Grimes. However, “China dwarfs everybody,” he said. According to the World Nuclear Association’s latest figures, 28 reactors are already under construction

in China, adding to the 20 already in operation. India is also pouring resources into new thorium-powered reactors—a technology that is gaining worldwide interest.

Across much of Europe, meanwhile, popularity of nuclear has waned. Germany, which once drew a quarter of its electricity from nuclear power, plans to phase it out altogether. Switzerland, Denmark, and Belgium similarly show no signs of building any new reactors.

In the UK, “public opinion is vaguely pro-nuclear. The perception is that nuclear is needed to help with climate change, and to stop the lights going out,” said

Dorfman, who believes nuclear power is not the solution to the UK’s energy problems. “The reality is that they won’t really help with either,” he said. The time scale for completing the next generation of reactors is so long-term, he argues, that it won’t resolve the problem of high electricity prices now, nor the immediate threat of climate change.

Even so, as this latest briefing note shows, the UK government seems committed to pressing ahead with its new nuclear build program, and is demolishing the barriers in its way.

**Angela Saini**

#### DOE releases report on hydropower <http://nhaap.ornl.gov/nsd>

The US Department of Energy and its Oak Ridge National Laboratory released a renewable energy resource assessment in late April detailing the potential to develop new electric power generation in waterways across the United States. The report estimates over 65 GW of potential new hydropower development across more than 3 million US rivers and streams. According to the report, these findings demonstrate one of the ways the United States can further diversify its energy portfolio with sustainable and clean domestic power generation.

Hydropower makes up 7% of total US electricity generation and continues to be the United States’ largest source of renewable electricity, avoiding over 200 million metric tons of carbon emissions

each year. Hydropower also provides reliable baseload power day and night—providing greater flexibility and diversity to the electric grid, and allowing utilities to integrate other renewable sources such as wind and solar power.

The report, titled “New Stream-reach Development Assessment,” capitalizes on recent advancements in geospatial data sets and represents the most detailed evaluation of US hydropower potential at undeveloped streams and rivers to date. The greatest hydropower potential was found in western US states, including Alaska, California, Colorado, Idaho, Montana, Oregon, and Washington. Meanwhile, Kansas, Missouri, Pennsylvania, and Wyoming led the rest of the country in new stream-reach hydropower potential.

The hydropower resource assessment also analyzed technical, socioeconomic, and environmental characteristics that will help energy developers, policymakers, and local communities identify the most promising locations for sustainable hydropower facilities. The assessment includes stream- and river-specific information on local wildlife habitats, protected lands, water use and quality, and fishing access areas.

The current report builds on a 2012 Department of Energy assessment that found over 12 GW of hydropower potential at the country’s existing 80,000 non-powered dams. The results of the resource assessment released this year show that there are still many opportunities to develop new hydropower projects around the country, most of which would likely be smaller, run-of-river facilities that could utilize new low-impact designs and technologies. □

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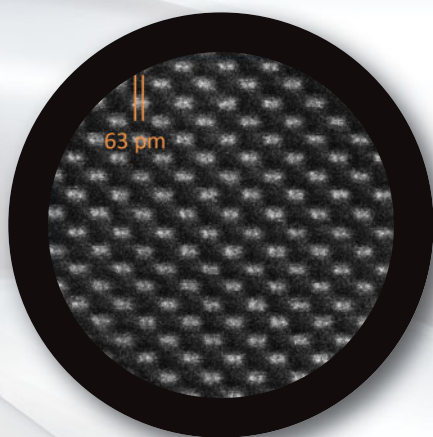
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