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Focus 23

By BRAD PLUMER

Nuke solution

Nuclear power was once shunned at climate talks. Now, it's a rising star.

FOR years at global climate summits, nuclear energy was seen by many as part of the problem, not part of the solution.

Sama Bilbao y Leon has been attending the annual United Nations climate change talks since 1999, when she was a student of nuclear engineering. And for most of that time, she said, people didn't want to discuss nuclear power at all.

"We had anti-nuclear groups saying, 'What are you doing here? Leave!'" she said.

These days, it's a very different story.

At last year's climate conference in the United Arab Emirates, 22 countries pledged, for the first time, to triple the world's use of nuclear power by midcentury to help curb global warming. At this year's summit in Azerbaijan, six more countries signed the pledge.

"It's a whole different dynamic today," said Bilbao y Leon, who now leads the World Nuclear Association, an industry trade group. "A lot more people are open to talking about nuclear power as a solution."

The list of countries pledging to build new nuclear reactors, which can generate electricity without emitting any planet-warming greenhouse gases, includes longtime users of the technology like Canada, France, South Korea and the United States. But it also includes countries that don't currently have any nuclear capacity, like Kenya, Mongolia and Nigeria.

Over the past few years, interest in nuclear power has steadily grown in tandem with concern about global warming. That shift is apparent at these UN climate talks, known as COP29. Along

with the chants by vegan activists and the solar power booths that have enlivened past summits, countries like Turkey and Britain are now hosting panels on how to finance new nuclear plants or how small reactors could generate the heat needed for all kinds of industrial purposes.

Nuclear energy still has plenty of detractors, including environmentalists who point to the technology's high costs and radioactive waste. Yet many politicians at this year's climate talks seemed eager to give it a second look.

"It gives me hope that nuclear energy is more and more popular around the world," Prime Minister Petr Fiala of the Czech Republic said in an address to other leaders last week. "I strongly believe that nuclear power is essential to meet climate goals."

The interest has been driven by several factors. In Britain and the US, politicians and businesses wanting to phase out fossil fuels say they need a steady source of carbon-free electricity to complement solar and wind power, which aren't available at all hours. In Eastern Europe, many countries have been seeking alternatives to Russian gas.

Elsewhere, some developing countries see nuclear power as crucial for cleaning up air pollution while meeting rising energy demand.

Turkey is ramping up its use of renewable power and improving

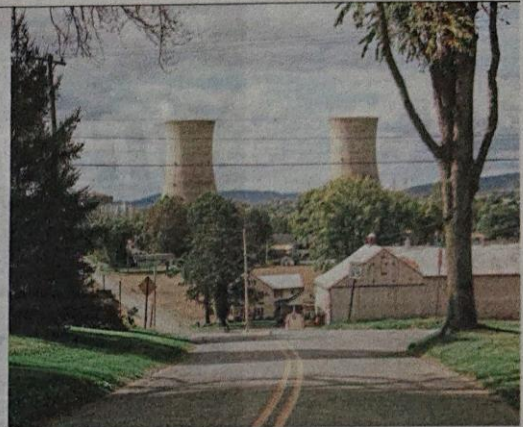
energy efficiency, but "it's not enough," said Abdullah Bugrahan Karaveli, president of the country's energy and nuclear agency. The country's electricity use is growing at around 4% per year, he said, and "we cannot do it without nuclear in our long-term plan."

While Turkey doesn't have any working nuclear power plants today, construction is underway on the country's first plant along the southern coast and officials are in talks with Russia, China and South Korea to build a second and third plant.

Yet the obstacles are enormous. Over the past two decades, the amount of electricity generated by nuclear plants worldwide has largely flatlined. Many countries have been deterred by the delays and soaring costs that often plague efforts to build new reactors. Others, like Germany and Japan, have shut down reactors because of public opposition and a fear of accidents.

Critics have called the pledge to triple nuclear capacity "meaningless," doubting that it could ever be done affordably or safely. "We need to be practical and work on real issues," said Shinichi Kihara, a senior official at Japan's Economy, Trade and Industry Ministry. "In particular, nuclear projects often face uncertainty about future cost overruns."

The Biden administration has been particularly active in promoting nuclear power at the



Cooling towers at the shuttered Three Mile Island nuclear power plant near Middletown, Pennsylvania. — ©2024 The New York Times Company

talks. On Tuesday, the White House put out a detailed road map for how the country could triple its nuclear capacity by 2050.

Later in the week, the administration signed a letter of intent to provide a loan of roughly US\$979m (RM4.3bil) to a project in Poland that would build three large new nuclear reactors designed by Westinghouse, a US company.

Jake Levine, senior director for climate and energy at the White House, said the US was interested in expanding the use of nuclear power in Eastern Europe to help countries avoid dependency on Russian gas. Nuclear power, he said, provides "a clear energy security value for many of our partners and allies." And while President Joe Biden will leave office in January, Levine said efforts to promote US nuclear technology overseas had "strong bipartisan support" in Congress.

One US ally in Eastern Europe, Romania, gets one-fifth of its

electricity from two large reactors. The country is now in talks with Western nations about reviving two other reactors that were partly built at the same site but never completed.

At the same time, an Oregon-based startup called NuScale plans to build six smaller reactors in Romania, backed by a US government loan. Some experts think a new generation of smaller reactors might be easier to finance than traditional large reactors, though the technology is still unproven.

Bilbao y Leon said financing was still a major challenge for nuclear projects. The World Bank, for instance, has not bankrolled a nuclear project since 1959. But pressure is growing.

"It's one thing if I tell the World Bank they should support nuclear," she said. "But if there are dozens of countries, including emerging nations, saying we're interested in this, that's a little different." — ©2024 The New York Times Company

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