## NORTH AMERICAN EXPERTS: BRUSSELS NUCLEAR PLEDGE IS A 'FALSE PROMISE' TO THE WORLD

## 'Too Costly and Too Slow', Experts Weigh in After U.S. and Canada Join IAEA Pledge Committing to New Nuclear Reactors

**WASHINGTON, DC – March 22, 2024 –** At the Brussels Nuclear Energy Summit organized by the International Atomic Energy Agency (IAEA), leaders and representatives from the United States and Canada joined 30 additional nations in a 'pledge' to: "fully unlock the potential of nuclear energy by taking measures such as enabling conditions to support and competitively finance the lifetime extension of existing nuclear reactors, the construction of new nuclear power plants and the early deployment of advanced reactors, including small modular reactors."

In response to the U.S. and Canada's participation in the declaration, North American experts issued the following statements:

Dr. Gregory Jaczko, Former Chairman of the U.S. Nuclear Regulatory Commission (NRC), said:

"This is just a rehash of the global nuclear efforts in the beginning of the century. The U.S. made a significant effort to ramp up nuclear power output in the 2000s. While I ran the NRC, we prepared, received applications to license 28 reactors a decade and a half ago. Despite massive subsidies and support -- just like the solemn pledge today -- only one reactor has started almost 15 years later at an exorbitant cost. The problem isn't the commitment of governments; it is the performance of the industry. No regurgitation of previous pledges will fix those issues in time to deal with climate change."

David Schlissel, Director of Resource Planning Analysis at the Institute for Energy Economics and Financial Analysis (IEEFA) and author of <u>a 2022 IEEFA Analysis</u> of the abandoned UAMPS/NuScale Small Modular Reactor (SMR) Project, said:

"Nuclear power has always been far more expensive than proponents have said it would be. Contrary to the claim that atomic power was going to be 'too cheap to meter,' it quickly became too expensive to build with an average cost more than double what promoters had promised, and with many projects costing more than triple initial projections. The 34 nations signing yet another "solemn pledge" yet again claim that nuclear will be a low-cost source of power but offer no evidence, beyond unsupported industry statements, to support their belief that the nuclear leopard has finally changed its spots.

"As for the claim that new reactors will be effective tools for fighting climate change, this too is a false promise as new reactors will have to balance two competing goals. On the one hand, to be effective tools for reducing CO2

emissions, new reactors will have to cycle up and down, complementing, not displacing, all the low-cost renewable resources and battery storage capacity now being added to the grid. But to be profitable, new reactors will have to run flat-out at full power, producing as much energy as possible, thereby displacing truly declining cost renewable resources from the grid. Because most of the costs of reactors are fixed, the more they cycle up-and-down, the less power they will produce, and their average cost of power will go up. This will make them more expensive to run than the renewable resources the world already has and the tremendous increases in renewable capacity which are on the way.

"It is time to get past the nuclear industry's history of over-promising and underproducing and fully turn to inexpensive carbon free renewable resources."

Amory B. Lovins, Adjunct Professor of Civil and Environmental Engineering, Stanford University, said:

"Last year, the world added 537 GW (billion watts) of renewable generating capacity, 443 GW of it solar, and lost 1 GW of nuclear capacity as retirements surpassed additions (now a common pattern). Last year, China added 217 GW of solar and 1 GW of nuclear capacity. China alone can now make about 600 GW of solar modules every year, rising by this December to around 1000 GW per year. Nuclear power is lucky to add in a year the electrical output that renewables add every few days. It's game over in the marketplace, but the band plays on.

"Nuclear power, of any type or size, has no business case or operational need, so virtually all purchases are by enthusiastic governments, not market actors. That's why the industry has quietly switched from selling products to harvesting subsidies. The IAEA EU Nuclear Energy Summit is a fantasy-fest, not a serious forum for a needed and competitive technology. Indeed, buying more nuclear power makes climate change worse, by displacing manyfold less fossil fuel per Euro or per year than renewables or efficiency otherwise would do. The more we're concerned about climate, the more vital it is that the technologies we buy be cheap, fast, sure options—not costly, slow, and speculative."

M.V. Ramana, Professor and Simons Chair in Disarmament, Global and Human Security, School of Public Policy and Global Affairs, University of British Columbia, Vancouver, said:

"It is not surprising that countries that seek to make money by selling nuclear reactors will pledge to subsidize an uneconomical source of energy. To the extent that they follow up on this pledge, it will only make it harder to meet the emission targets recommended by climate scientists because nuclear power is expensive. Even under optimistic assumptions, nuclear power can expand only very slowly; and under realistic assumptions, it will continue to decline in importance, as has been the case since the mid 1990s. This pledge, therefore, is simply a dangerous distraction from the urgent task of changing our energy system to a renewable powered one so as to give us the best shot at mitigating the climate crisis."

Linda Pentz Gunter, Editor of Beyond Nuclear International and the International Specialist at Beyond Nuclear, said:

"The spectacular collapse of the U.S. 'flagship' small modular reactor, NuScale, after costs sky-rocketed and partners dropped out, should serve as a warning to countries intent on embarking on nuclear power programs that have proven, time and again, to be too slow and expensive. But these lessons were not heeded in Brussels, nor the abject failure of the previous nuclear 'renaissance; where, in the U.S., only a single reactor out of a promised 34 is in service, coming in at \$20 billion more than originally projected."

In addition to statements made by North American experts, more than 600 organizations from around the world <u>issued a declaration</u> ahead of the Brussels summit, stating in part:

"New nuclear power is too slow to tackle the climate emergency. Nuclear power plants under development have been severely delayed and won't be able to meaningfully contribute to cutting carbon emissions this decade. Whereas greenhouse gas emissions must be drastically cut by 2030 to limit global temperature rise to less than 1.5 degrees, any new nuclear plants announced today would not be connected to the grid until well past this deadline. New nuclear power plants are a distraction which slows down the energy transition. A rapid shift away from fossil fuels should instead focus on building a 100% renewable energy system coupled with energy efficiency and measures to avoid excessive energy use. Together, these steps can meet the world's energy needs in a way that is fair, environmentally friendly, and achievable."

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