

Climate Leaders need nuclear energy to achieve net zero

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This press statement is issued jointly by Canadian Nuclear Association, FORATOM, Japan Atomic Industrial Forum, Nuclear Energy Institute, Nuclear Industry Association and World Nuclear Association

World leaders will meet on April 22 and 23, at the invitation of US President Biden, to galvanise efforts to reduce greenhouse gas emissions. We have less than thirty years to cut carbon emissions from every sector of our global economy to zero.

To meet the urgency and the magnitude of this challenge we must take a realistic, science-based approach that addresses all sectors. The world will need to generate many times more clean energy than we do today. To achieve this will require that we use every low-carbon technology at our disposal. Nuclear power must be one of those technologies.

Nuclear technologies bring benefits that are unmatched:

- **Proven track record:** nuclear power plants have operated for more than 60 years; they are the largest single source of low-carbon electricity in developed countries and have a long-proven track record in offering an affordable low-carbon alternative to fossil fuel generation.
- **24/7 reliability:** nuclear plants provide a dependable, always-on output. But they can also operate flexibly, supporting the deployment of intermittent renewable generation and ensuring a robust and resilient electricity system.
- **Cost-effective:** Nuclear energy is a cost-effective climate change mitigator. Extending the operation of our current reactors is the lowest-cost form of additional low-carbon generation. New reactors are competitive, particularly when total system costs and the value of avoided emissions are taken into account.
- **Energy services beyond electricity:** nuclear reactors can be used to provide process heat for industry, to desalinate water, produce green hydrogen, and to create synthetic low-carbon fuels as well as to generate power.

- **Jobs and socio-economic benefits:** nuclear energy deployment efficiently promotes national and local economic growth. It provides long-term high-skilled jobs and has significant multiplier effects in many sectors of the economy. For developing countries, where the bulk of world energy demand growth will occur in the decades to come, nuclear can be a huge development contributor, as well as limiting their reliance on fossil fuels.
- **Scalable:** New designs mean that any country, large or small, can deploy nuclear power, irrespective of their natural resources.

Today, nuclear innovation is unlocking further possibilities for sustainable development. Nuclear energy is a vital part of a successful transition to a clean energy future. We urge global leaders to put in place technology-neutral policies that will make possible for countries to deploy all the low-carbon options available as they set their action plans to reach net-zero. Do not deprive current and future generations one of the most effective low-carbon generation sources currently available.

Notes for editors

The [Leaders Summit on Climate](#) is taking place on 22&23 April 2021

Further information on the organizations issuing this statement can be found on their websites:

[Canadian Nuclear Association](#)

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[Nuclear Energy Institute](#)

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