Nuclear power in Norway?

Advantages, disadvantages, and prerequisites

Presentation of the Commission's conclusions

Nordic Energy Day 20 August 2026

Kristin Halvorsen, Commission Chair

The Norwegian Nuclear Power Commission 2026

The Commission is unanimous on all points

Expert Commission:

- Kristin Halvorsen, Chair
- Jørgen Bjørndalen
- Monica Endregard
- Daniel Karlsson
- Carl-Magnus Larsson
- Astrid Liland
- Lars Petter Maltby
- Linda Nøstbakken
- Sigrid Eskeland Schütz
- Asgeir Tomasgard
- May Thorseth
- Atle Valseth

Mandate

1. What role can nuclear power play in the Norwegian energy system?
2. What would be required for Norway to introduce nuclear power?
3. Establish an up-to-date knowledge base for assessing the introduction of nuclear power in Norway.

- Previous official report on nuclear power in Norway: Official Norwegian Report 1978: 35A *Nuclear Power and Safety*
- In 1986, the Norwegian Parliament (the Storting) concluded that: 'Nuclear power is not an option for Norway's energy supply'
- Norway had research reactors in Halden and at Kjeller until 2018/2019

Advantages of nuclear power

- Low greenhouse gas emissions
- High energy density, a lot of power in a small area
- Stable and high energy production
- Good system characteristics, operationally reliable, and dependable
- Fits well into the Norwegian energy mix
- Can be located where it is beneficial for the grid and in areas with high demand and low production
- Nuclear power can be operated with low risk in Norway

Olkiluoto, Finland. March 2025.

Disadvantages of nuclear power

- Radioactivity and radiation hazards requiring a high level of safety throughout the process
- Extensive central government responsibility for management and regulation
- Requires a plan for interim storage, decommissioning, and safe disposal for 100,000 years
- High costs – cannot be covered by market prices
- Cannot supply power in Norway until the mid-2040s at the earliest
- In addition, opening the door to nuclear power now may delay investments in renewable energy
- Dependent on fuel imports from other countries

Prerequisites for nuclear power in new nuclear power countries

Norway must follow the recommendations of the IAEA

Comprehensive national decision:

Ensure strict safety measures at all levels

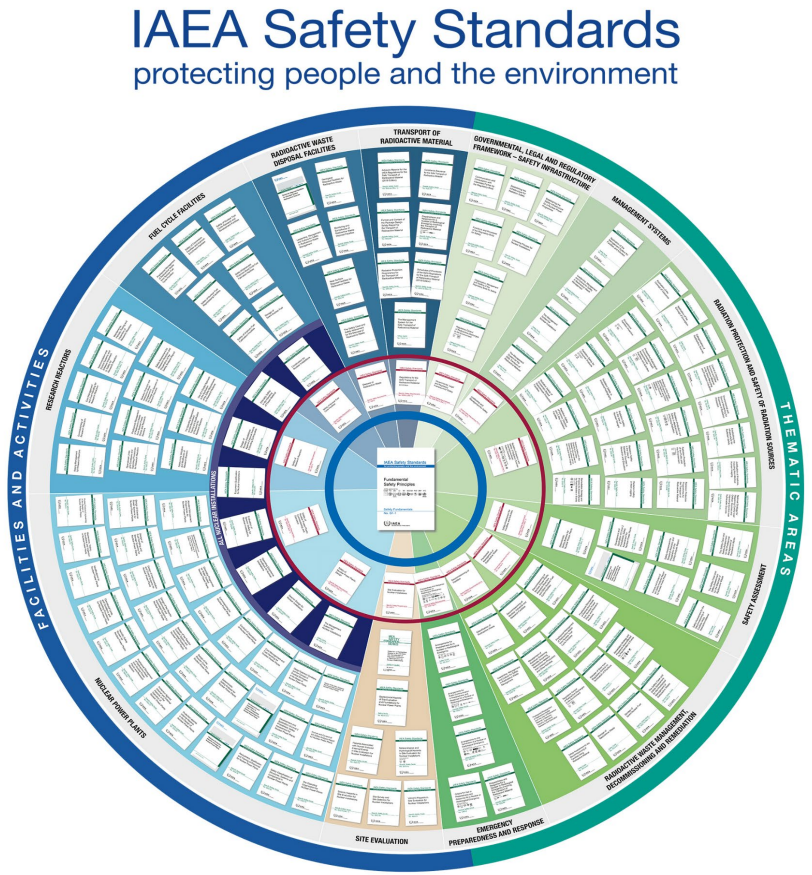
Develop regulations, expertise, capacity, clarify responsibilities

Conduct supervision and security control

Responsibility for rehabilitation after serious accidents and in the event of bankruptcy

Ensure proper decommissioning and disposal of waste

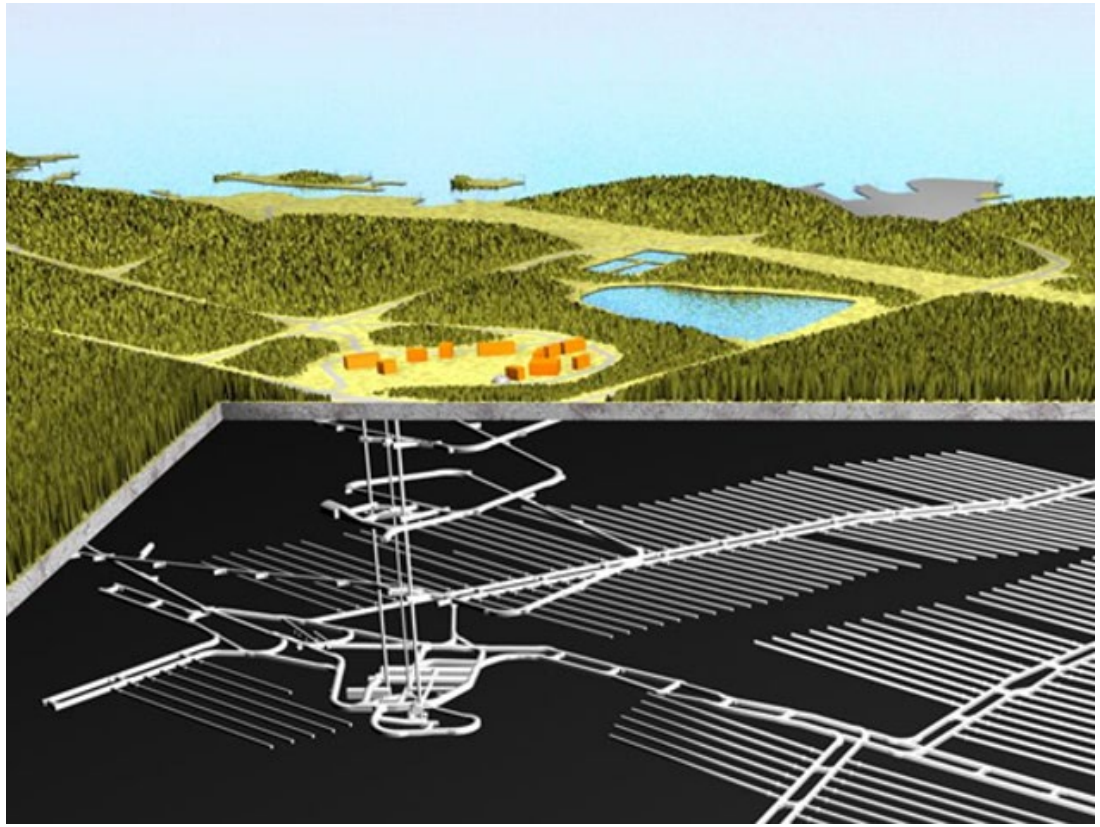
Fulfilling international security and non-proliferation obligations



Nuclear power requires broad public support for a very long time

- A significant financial risk associated with establishing nuclear power is that public support may wane
- 94 reactors under construction and 1 complete reactor were never put into production due to costs/declined public support
- The public must have confidence in the processes leading up to the decision and throughout the plant's lifetime
- Requires good and comprehensive information about risk, safety, local and national consequences
- Cannot be adopted by a narrow majority in the Storting that can turn around at the next election

Waste management plan from the start



IAEA requires a waste management plan from the start

Spent fuel will be stored for 100,000 years

Only Finland has a landfill ready – a major challenge in all nuclear power countries

A landfill shall be located and financed

Norway cannot invest ‘a little’ in nuclear power – cost must be shared by many

Recommendation:
Establish a national competence project for nuclear power

- Regularly update the status of nuclear power development in the Nordic region and globally
- Assess how the IAEA's Milestones Approach can be adapted to Norwegian conditions
- Build public confidence in any process regarding the possible establishment of nuclear power
- Ethical considerations from a generational perspective
- Develop competence and research communities
- Explore opportunities for cooperation with Sweden and Finland
- National framework for the siting of potential nuclear power plants and disposal facilities

The Norwegian Nuclear Power Commission

Appointed 21 June 2024

https://nettsteder.regjeringen.no/kjernekraftutvalget/