



# NUCLEAR TRANSPARENCY WATCH

Prevent and anticipate through transparency and participation

## NUCLEAR LIFE-TIME EXTENSION and PUBLIC PARTICIPATION

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# NUCLEAR LIFE-TIME EXTENSIONS

## the situation

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- **93** nuclear reactors  
**to reach end of initial foreseen technical lifetime**  
in Espoo Parties in the next 10 years
- **Average age** of nuclear reactors in Espoo Parties:  
**32 years**
- Currently decisions in process:  
AM, BE, CH, CZ, ES, FI, FR, HU, NL, SE, SI, UA, UK

# ENVIRONMENTAL IMPACTS 1/3

## of life-time extension of nuclear reactors

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**10 or 20 years extra means 25%, 33% or 50% longer operation & impacts:**

- Increased use of **uranium**;
- Increased production of **radioactive wastes**
  - for >90% of radioactive content no permanent solution exists;
  - accumulation of spent fuel or vitrified waste in interim storages;
- Increase exposure to the risk of a severe nuclear accident with substantial emissions of radioactive material  
**an increased risk of a Fukushima type accident;**
- **The risk itself grows:**
  - Risk of accident increases exponentially with ageing (bathtub curve);
  - Upgrades increase radioactive inventory;
  - Upgrades only give a temporary decrease of risk growth;
  - Loss of knowledge and skills.

# ENVIRONMENTAL IMPACTS 2/3

## of life-time extension of nuclear reactors

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- Construction (for some reactors), and physical changes over the lifetime **never submitted to an environmental impact assessment**:
  - Ongoing ageing (bathtub curve!), upgrades, uprates, MOX introduction (all including the impacts of a prolonged lifetime!), related license renewals and license changes;
  - These are de-facto tiered (layered) decisions leading to a, from the perspective of the public, de facto life-time extension.

# ENVIRONMENTAL IMPACTS 3/3

## of life-time extension of nuclear reactors

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- **The environment has changed:**
  - **physical** (amount of inhabitants, nature areas, agricultural activity)
  - **economic** (value of surrounding economic activity, form of economic activity – for instance the chemical processes near Doel)
  - **political** (need for energy policy actions because of climate change, development of energy structure and grid structure because of variable renewable uptake)
  - **Risk-perception** (no acceptance of more Fukushima-type accidents, higher risk reduction standards, standards should match standards for new reactors)

# POSITION

## of Nuclear Transparency Watch

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**Natural legal, moral and logical right of citizen** confronted with decisions of these impacts to be consulted.

**The logical instrument** for that is the **Espoo Convention** and (transboundary) **environmental impact assessment.**

# THE DECISION 1/2

## leading to nuclear life-time extension

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After the initial technical foreseen lifetime, there is always a form of decision that leads to life-time extension:

- an operation license prolongation;
- an exploitation license prolongation;
- approval of changes to either the operation or exploitation license;
- By the operator, followed by an administrative or political confirmation;
- A decision related to the Periodic Safety Review;
- tiered (layered) decisions (a mix of political and administrative);
- In any other form.

# THE DECISION 2/2

## leading to nuclear life-time extension

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And a justification is needed for the environmental impacts from such a decision.

Espoo Convention Implementation Committee  
33rd session concerning Rivne 1,2:

**“without this decision for the extension of lifetime, the operation of the activity would have terminated.”**



# POSITION

## of Nuclear Transparency Watch

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