

# The Netherlands

## Nuclear Strategy and LTO Prospects

# Nuclear infrastructure in the Netherlands



One operating nuclear power plant: Borssele (485 MW, PWR, in operation since 1973, approx. 3.2% of the NL's electricity)



First commercial NPP (Dodewaard) decommissioned in 1997 after only 28 years of service



Research reactors: HFR (Petten), TU Delft, and planned PALLAS reactor



Fuel cycle infrastructure: Urenco (uranium enrichment, Almelo)



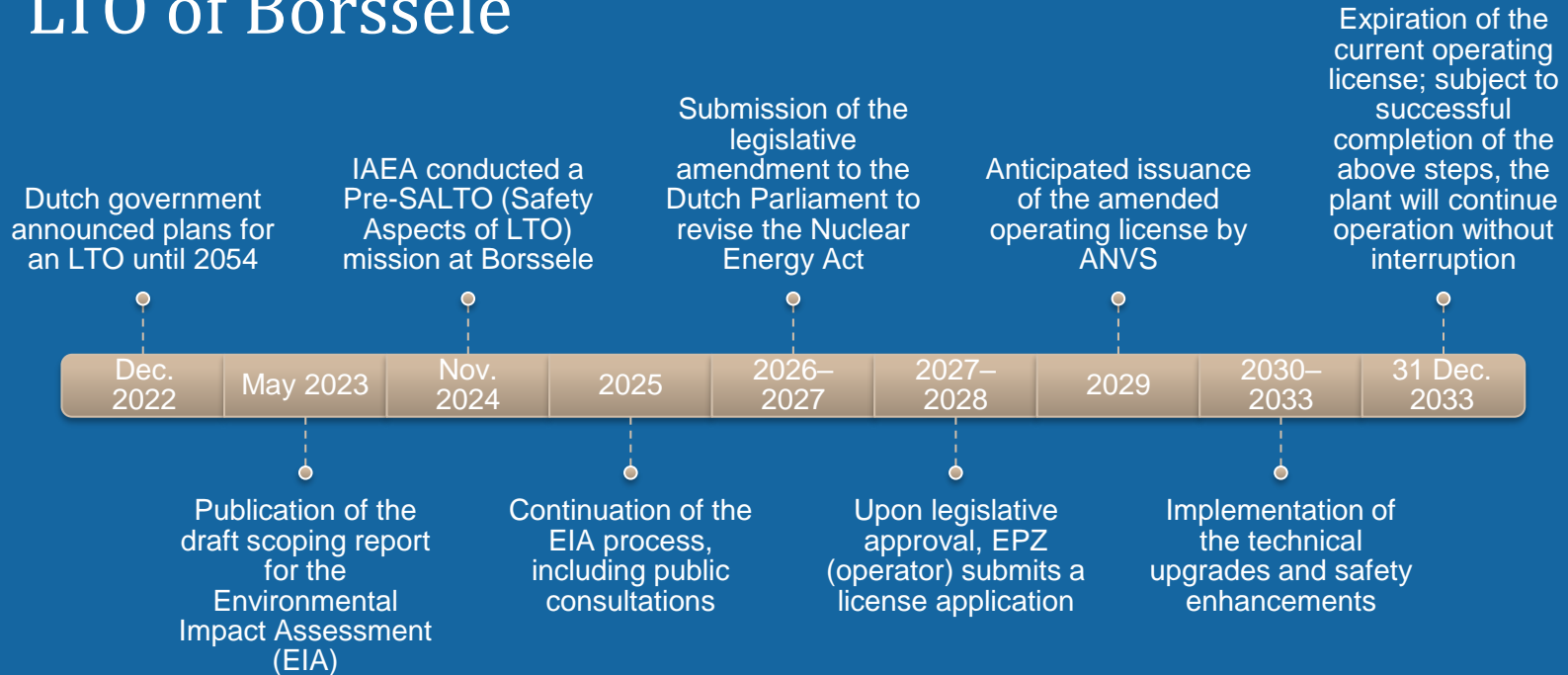
Waste management: COVRA (long-term interim storage)

# LTO of Borssele

- Borssele's license expires on 31 December 2033 (60 years)
- LTO considered essential to ensure electricity security until new reactors are online (expected ~2035)
- Requires: updated PSR, safety upgrades, environmental assessments, and legal amendments



# LTO of Borssele



# EIA process

## Phase 1: Legislative Amendment (Strategic EIA)

Objective: to assess the environmental implications of amending Article 15a of the Dutch Nuclear Energy Act (which currently prohibits permit applications)

Alternatives considered: 10y extension; 20y extension; indefinite extension (removing operational end date altogether)

Conclusion (14 June 2024): no immediate environmental obstacles to amending the legislation; more detailed assessment in Phase 2 once specific technical modifications are identified

## Phase 2: Licensing (Project EIA)

Objective: to conduct a comprehensive environmental assessment related to the actual extension (technical modifications)

2025-2026: completion of technical studies and initiation of the detailed EIA

2027: submission of the revised license application to ANVS

2028-2029: ANVS review, public consultations, and decision on the license amendment

# EIA process – Comparison with Belgian LTO

	Netherlands (Borssele)	Belgium (Doel 4 & Tihange 3)
<b>EIA Phases</b>	Two-phase approach: Strategic EIA followed by Project EIA	Single comprehensive EIA
<b>Legislative Amendment</b>	Assessed separately in Phase 1	Included within the single EIA
<b>Technical Modifications</b>	Detailed in Phase 2 after technical studies	Assessed concurrently within the single EIA
<b>Public Consultation</b>	Conducted in both phases, including transboundary aspects	Conducted as part of the single EIA, including transboundary consultations

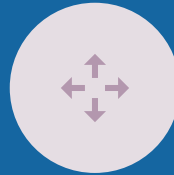
# New build plans (Gen III+)



GOVERNMENT PLANS (2021): TWO NEW GEN III+ NPP (EACH 1000-1650 MW) BY 2035 (9 TO 13% OF ELECTRICITY PRODUCTION)



PREFERRED SITE: BORSSELE, DUE TO EXISTING INFRASTRUCTURE AND PUBLIC FAMILIARITY



ALTERNATIVES: MAASVLAKTE (ROTTERDAM), TERNEUZEN, EEMSHAVEN (GRONINGEN)



ESTIMATED TIMELINE:  
- EIA IN 2025-2026  
- FINAL DECISION ON LOCATION IN 2026-2027  
- LICENSING IN 2027-2028  
- CONSTRUCTION AS FROM 2028



STRONG POLITICAL SUPPORT (2024 COALITION AGREEMENT: POSSIBLY 4 NEW REACTORS) AND €14 BILLION FUNDING

# New build plans (Gen III+) – EIA process



## Strategic Environmental Assessment (SEA)

Objective: to evaluate potential locations for the new NPPs and assess the environmental impacts associated with each

Preferred solution: based on the SEA, a preferred solution will be proposed (most suitable location). This proposal will be subject to further public consultation



## Project Environmental Impact Assessment (Project EIA)

Objective: detailed assessment of the specific environmental impacts on the preferred location

The findings from the Project EIA will inform the licensing process



# SMRs and Innovation

SMRs considered a long-term complement, not a substitute for Gen III+

Early private initiatives (e.g. ULC-Energy / Rolls-Royce SMR)

National funding for R&D and thorium molten salt concepts (Thorizon)

Government remains technology neutral, but prioritises proven designs

# Comparison with Belgium

Belgium and the Netherlands now align on the strategic value of nuclear in a diversified mix

Convergence on security of supply, climate neutrality, and openness to SMRs

Shared challenges: skill shortage, supply chain constraints