# Preparations for new nuclear power in Sweden

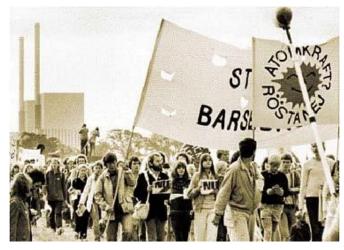
Seminar at the Royal Institute of Technology, Stockholm 2025-05-12

Carl Berglöf, National Nuclear New-build Coordinator Inquiry assigned by the Ministry of Climate and Enterprise



### The nuclear policy evolution







The atomic age begins

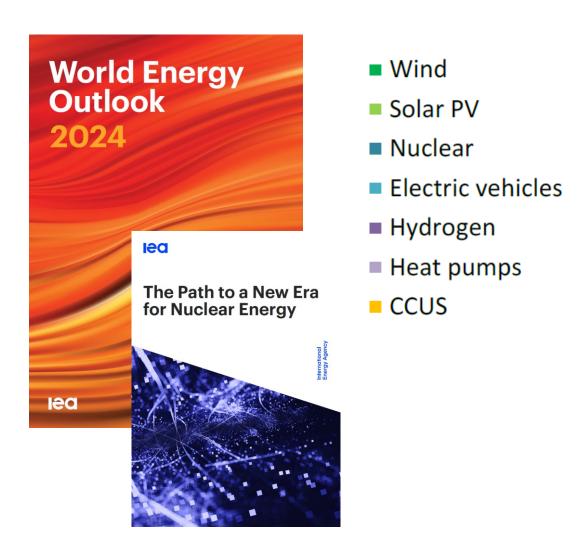
Set-back

Nuclear renaissance



### A Key Technology

- IEA: Nuclear power is one of seven "key technologies" for the transition
  - "Overcoming barriers to their deployment should be a priority worldwide"
  - +40 include nuclear power in their energy policies





#### A new course for energy policy in Sweden

- New policies driven by:
  - Climate
  - Energy security & system challenges
  - Competitiveness
- "100% fossil free" electricity production
- Removed nuclear cap
- Targets for system planning
- New policy approved by Parliament
  - Includes Nuclear Roadmap





#### Roadmap for New Nuclear Power

- New nuclear capacity corresponding to two large-scale reactors by 2035
- A strong build-up of nuclear capacity to 2045
- A second nuclear program!



2025

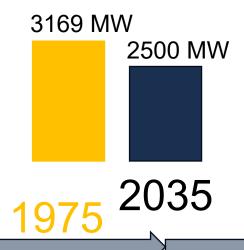
2045

10 000 MW



### Roadmap for New Nuclear Power

- New nuclear capacity corresponding to two large-scale reactors by 2035
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#### A coordinated approach to programme development

#### Government

Government offices

**Authorities** 

Inquiries



- Effective communication
- Structured advice

**Utilities** 

**Investors** 

Industry and endusers

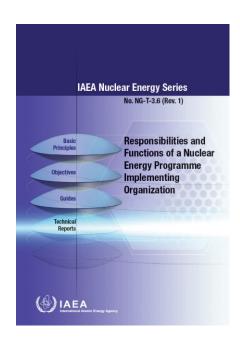
Vendors & Project developers

Supply chain

Municipalities

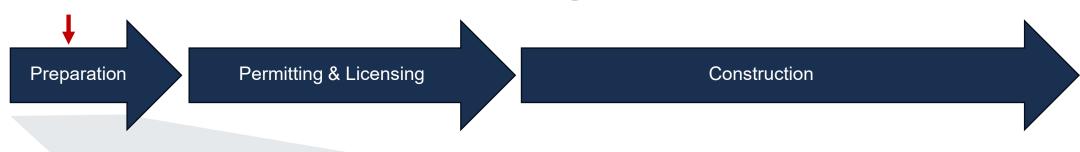
Academia

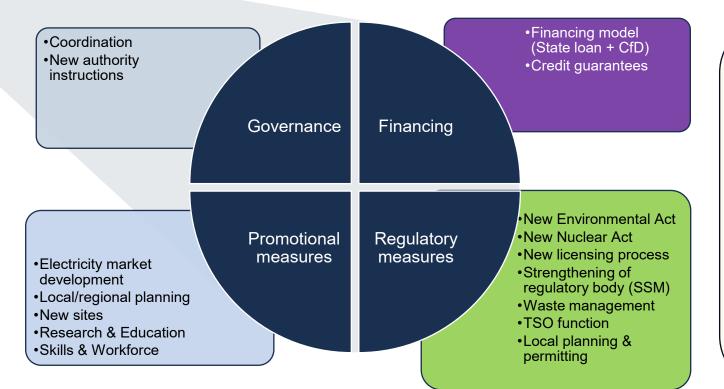
International contacts





## Critical path to first grid connection





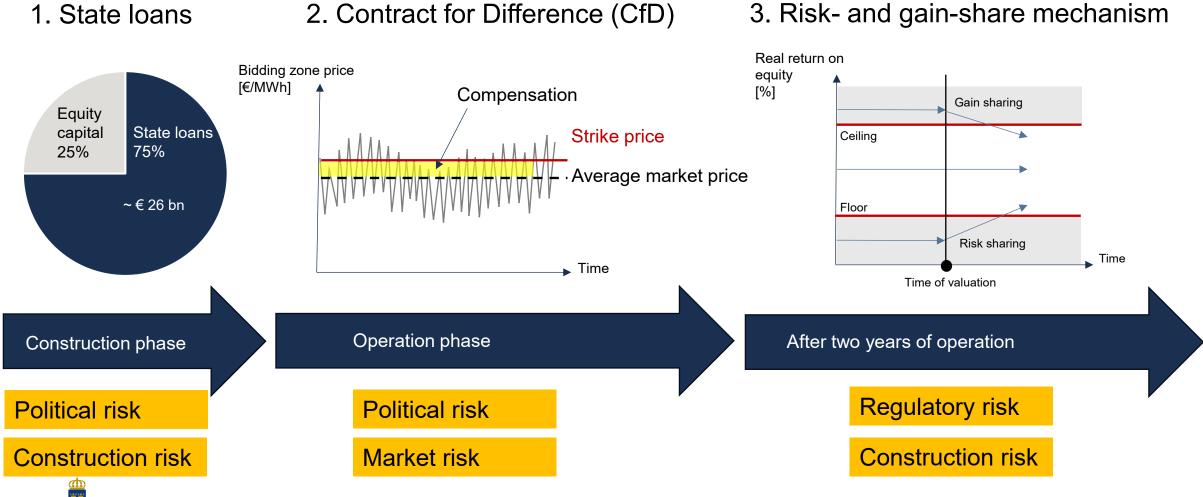
Activities proposed by the nuclear coordination:

- Mapping of supply chain
- Mapping of conventional construction requirements
- Electricity system study
- Cooperation between municipalities
- External review of preparations
- Establishment of a programme organisation
- Regional cooperation on supply chains

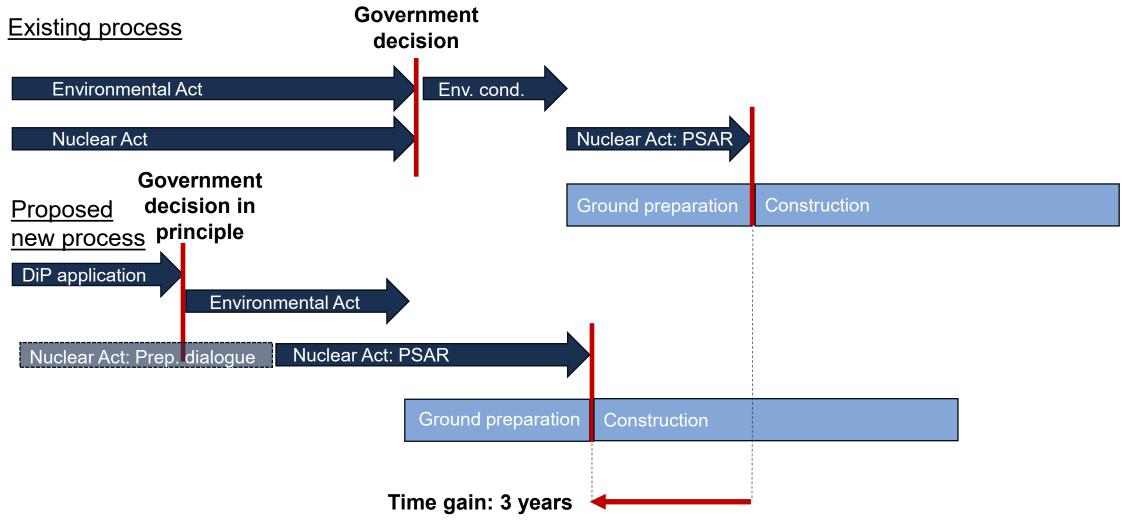


### Proposed Financing Model (4-6 GW)

SWEDISH GÖVERNMENT



## Proposed new licensing process





# Two interim reports published





En nationell samordnare för utbyggnad av KN 2024:01 Carl Berglöf +46 76 142 67 87 carl.berglof@regeringskansliet.se

2024-06-17 Komm2024/00450/KN 2024:01-1/

Klimat- och näringslivsdepartementet Finansdepartementet Arbetsmarknadsdepartementet Landsbygds- och nfrastrukturdepartementer

Interim report: The nuclear new-build coordinator's recommendations regarding the expansion of new nuclear

#### Introduction

Since I February 2024, the inquiry "A national coordinator for the expansion of nuclear power" (KN 2024:01, hereinafter referred to as the "nuclear newbuild coordinator" or "the inquiry") has evaluated the measures taken linked to the expansion of nuclear power in Sweden and whether these are sufficient in relation to the roadmap for new nuclear power presented by the cooperating parties within the Tido Agreement and adopted by the Swedish Parliament as part of the new energy policy framework! The Government has initiated, and in some cases implemented, several measures and investigations to create clearer and more efficient conditions for new nuclear power in Sweden. The Government has also assigned a number of missions to authorities for the same reason. These efforts are summarised in Chapter 4. In Chapter 5, the nuclear new-build coordinator provides an assessment of the ongoing investigations in relation to the objectives of the roadmap.



2025-01-30 Komm2025/00090

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Klimat- och näringslivsdepartementet Finansdepartementet Arbetsmarknadsdepartementet Landsbygds- och ifrastrukturdepartementet

Interim report 2: Report on the National Nuclear New-build Coordinator's mission regarding the expansion of nuclear power

#### Summary

The National Nuclear New-build Coordinator's second interim report provides a clarified recommendation on how a programme organisation may be designed. The coordinator recommends the establishment of a stateowned company that invests in new nuclear power capacity. By investing in several projects that get financial support from the state's financing model, lock-in effects regarding learning can be avoided. In this way, a higher costefficiency and a more responsible use of tax-payers money can be achieved.

The coordinator also proposes regional cooperation with neighbouring

The seport also provides a follow-up of activities of the National Nuclear New-build Coordinator since the previous interim report (June 2024), a summary of ongoing activities for new nuclear power and an assessment of the possibility to fulfil the goals in the Swedish Government's coadmap for

In this interim report, the public inquiry "A national coordinator for the expansion of nuclear power" (hereinafter referred to as the "National Nuclear New-build Coordinator" or "the inquiry") gives an overview on the

Terms of reference (in Swedish).



Regeringens proposition 2023/24:105, Energiporitizens långsliktiga inriktning, 14 mars 2024.

#### A missing piece: Knowledge management

