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PRESS RELEASE

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CIGEO: ANDRA ISSUES UPDATED COST ASSESSMENT

On 12 May 2025, Andra reported to the French Minister of Industry and Energy regarding the updated cost assessment for Cigeo, the deep geological disposal project for high-level radioactive waste (HLW) and long-lived intermediate-level radioactive waste (ILW).

The Costing Report is one of the main inputs used to define the cost of Cigeo, which will be determined by ministerial order by the end of 2025 after seeking comments from the main waste producers (EDF, Orano and CEA), as well as the opinion of the French Nuclear Safety and Radiation Protection Authority (ASNR). This order will provide waste producers with a benchmark for fulfilling their obligation to provision funding for the management of their waste.

Estimating the total cost of Cigéo is an iterative process carried out by Andra. This assessment will be revised at key stages of the project.

The 2025 costing report

The costing prepared by Andra is an estimate covering all costs associated with the disposal of Cigeo's reference inventory[1] over the facility's lifetime. It covers a period of more than 150 years, from January 2016 to the planned closure of the site in 2170. Taking an unprecedented approach for an industrial facility, it includes the **costs arising from initial construction of the disposal facility, as well as its subsequent operation, phased development, maintenance, security, closure and additional engineering costs identified at this stage of the project, plus the cost of insurance and applicable taxes over the full duration**. **Evaluating the cost of Cigeo is a complex, unprecedented endeavour** that entails making assumptions regarding the cost of labour, materials and energy, as well as taxation, over a 150-year period.

This report presents assessments based on the project design at the current construction licence application (DAC) stage, as well as on three optimised configurations. These optimisations might concern, for example, the incorporation of new, higher-performance materials, or changes to disposal cell lengths or the architecture of surface buildings.

[1] *As noted in Article R 542-90 of the French Environmental Code: "The disposal facility is designed to accommodate the waste that makes up the reference inventory". The reference inventory includes all HLW and ILW-LL waste either already produced by or expected to be generated by existing nuclear facilities and planned facilities licensed by the end of 2016 (including the Flamanville EPR, ITER and the Jules Horowitz experimental reactor), on the assumption that the reactors will operate for an average of 50 years and that all spent fuel produced by these facilities will be recycled in the current and future fleet. The waste packages sent for disposal represent a volume of around 10,000 m³ of HLW and approximately 73,000 m³ ILW-LL*

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Considering the project's exceptional lifespan and the lack of comparable facilities, the Cigeo cost assessment cannot be reduced to a single figure. Instead, it is expressed through high, medium and low estimates based on a range of explicit assumptions, intended to inform the decision-making process leading to the ministerial order that will determine Cigeo's cost.

Cigeo cost estimates

The Cigeo cost assessment is based on the design presented in the construction licence application (DAC) file, along with a number of configurations that meet the same safety and security requirements as the reference configuration, while incorporating optimisations that could be studied and implemented either before structures are built or else during Cigeo's subsequent development phases. High, medium and low estimates are presented for each technical configuration, based on the considered taxation assumptions.

Andra estimates **the cost of initial construction of the Cigeo project (prior to commissioning) to be approximately 7.9 to 9.6 billion euros$_{2012}$**[2]. This cost includes the design (excluding R&D), construction of the surface infrastructures and initial disposal sections, taxation and insurances.

Once commissioned in around 2050, Cigeo is estimated to generate average annual costs in a range between 140 and 220 million euros$_{2012}$, covering operation, phased construction, maintenance and renovation operations over a period of 95 years, followed by a decommissioning and closure phase lasting approximately 20 years, representing **a total cost between 16.5 and 25.9 billion euros$_{2012}$,** taxes and insurance included.

The cost of R&D efforts identified to date, including the operation and subsequent closure of the underground laboratory, is estimated at **between 1.7 and 2 billion euros$_{2012}$.**

Thus, **the total cost of Cigeo** (including construction, operation and closure) over the facility's lifetime, i.e. more than 150 years, **is between 26.1 and 37.5 billion euros$_{2012}$** depending on the assumptions considered. These assumptions include:

- The level of taxation, which remains to be specified, resulting in a spread of 7.4 billion euros$_{2012}$ between the low and high assumptions, based on the minimum and maximum thresholds set by the Finance Act adopted for 2025,
- Design and implementation of optimised configurations that, duly evaluated and licensed, would generate savings of up to 3.6 billion euros$_{2012}$, compared with the configuration presented in the DAC file,
- Lastly, the level of R&D activities and the arrangements for closing the Underground Laboratory, resulting in a spread of 0.3 billion euros$_{2012}$ depending on the assumptions considered.

In addition to the total cost estimate, Andra has estimated a bounding financial provision to cover the risks and contingencies associated with the initial construction (tranche 1), representing **between 0.5 and 1.9 billion euros$_{2012}$,** as well as the costs generated by the monitoring and post-monitoring phases, which would begin upon closure of the disposal facility.

Provisional timetable for Cigeo

The 2025 costing report has been prepared on the basis of Cigeo's updated provisional schedule. This schedule takes into account the additional time needed to complete the detailed preliminary design studies, prepare the supporting documentation for Cigeo's construction licence application, and to examine application. It also reflects experience feedback relating to the construction of major projects, and underground works in particular.

[2] ***Estimated costs based on 2012 economic conditions***
The Cigeo cost estimate is stated as a gross cost, based on the economic conditions prevailing in January 2012. Adopting this baseline facilitates comparison between the latest Andra assessment and previous versions.

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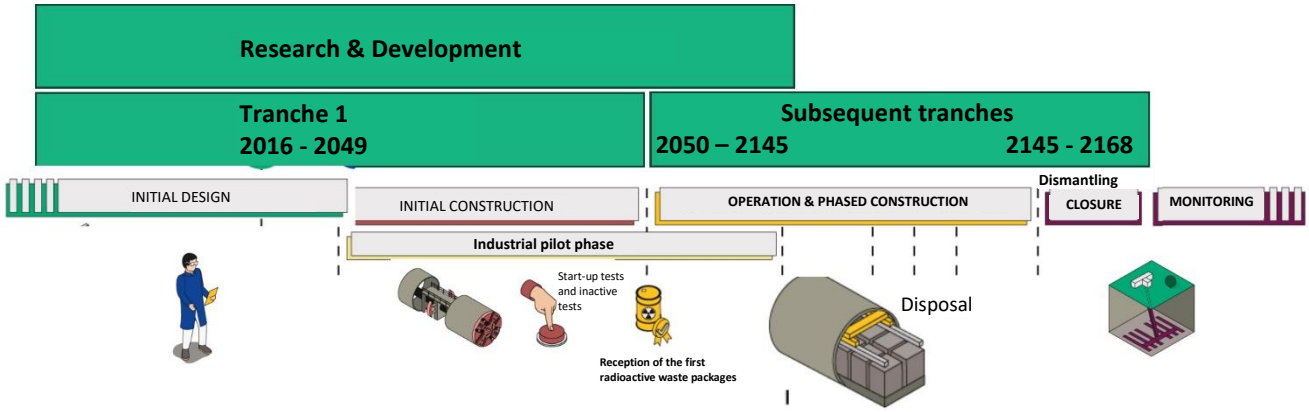
Assuming the construction license is granted in late 2027/early 2028, the first waste packages are currently expected to arrive by around 2050. The projected waste package delivery schedule drawn up jointly by waste producers and Andra points to an operating life of around a century for Cigeo. The dismantling and closure phase will last around 20 years.



Cigeo funding arrangements

While Andra has responsibility for disposal facilities (including their operation, monitoring, safety, etc.), radioactive waste producers remain responsible for their radioactive waste and have a duty to provide the financial resources to ensure its long-term management, under the "polluter pays" principle enacted in the French Environmental Code. The regulatory process to determine the cost of Cigeo will provide waste producers with a reference figure, enabling them to fulfil their obligation to provision funds for the Cigeo project.

Cigeo funding is governed by the Law of 28 June 2006, which established several specific funds to which waste producers contribute. Alongside these funds, the same law introduced a system to ensure the availability of financing for producers that pay into them, with the creation of dedicated funds controlled by the State.

The Cigeo total cost estimate is an iterative endeavour by Andra, maintained throughout the various stages of the project. The French Minister of Industry and Energy is expected to issue an order establishing the cost by the end of 2025. The order will serve as a reference for the ongoing project until its next assessment.

About Andra
The French National Radioactive Waste Management Agency (Andra) is a state-owned industrial and commercial undertaking created by the law of 30 December 1991. Its missions were extended by the Planning Act of 28 June 2006 on the sustainable management of radioactive waste. Andra operates independently to radioactive waste producers and is supervised by the Ministries of Energy, the Environment and Research. Andra puts its expertise at the disposal of State services in order to find, implement and guarantee safe management solutions for all types of radioactive waste in France in order to protect both current and future generations from the risk inherent in this waste.

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