

Audit of the preparation of the cost study 2016

Decommissioning fund for nuclear facilities and disposal fund for nuclear power plants

Key facts

As they cause radioactive waste, the owners of nuclear power plants are obliged under the Nuclear Energy Act (NEA) to carry out and finance the decommissioning and disposal of their nuclear power plants (NPP). Since the majority of the measures needed do not take place until after the decommissioning of a NPP, each of the owners has set up a fund for decommissioning and disposal. Both funds are subject to supervision by the Confederation.

The cost studies show the accrued and future costs of post-operation, decommissioning and disposal, and thus form the basis for calculating the owners' contributions to the funds. The cost studies are prepared every five years by the owners, represented by the association of the Swiss nuclear power station operators (swissnuclear). The National Cooperative for the Disposal of Radioactive Waste (Nagra) prepares the disposal programme, in which important documents (e.g. storage concepts, waste quantity structure, implementation plan) for the cost studies are set out.

The 2016 cost study showed decommissioning and disposal costs of around CHF 24 billion as at the reporting date, including costs of some CHF 6 billion already incurred. At the end of 2016, the assets of both funds amounted to approximately CHF 7 billion (including annual contributions). The chosen investment strategy is geared towards the long term and assumes a real return of 2% p. a.

The process for preparing the 2016 cost study is transparent and comprehensible

The Swiss Federal Audit Office (SFAO) was able to retrace both the 2016 cost study preparation process and the process for the review of the 2016 cost study by external experts, and had a positive view of both process stages. Relative to the 2011 cost study, this cost study has become much more transparent. The chosen methodology is comprehensible and plausible, which creates more confidence in the informative value of the cost estimates. The SFAO was additionally able to comprehend the sometimes highly controversial discussions between those involved and had a positive view of the results of the discussions in terms of both methodology and governance.

The 30% flat rate safety surcharge is no longer appropriate

In the SFAO's view, the methodological changes regarding cost estimates and cost breakdowns no longer justify the flat rate surcharge of 30% of total costs applicable under the Decommissioning and Disposal Funds Ordinance (DDFO).

The SFAO nevertheless considers a surcharge necessary, as the preparation of the cost study involves various uncertainties. For example, extraordinary opportunities and risks are not allocated, but are reported as (monetised) project risks.

The SFAO believes that the methods selected by the external experts for determining a safety surcharge (costs 8) and the very different results arising from these need to be further refined by the time of the next cost study.

It is necessary to determine the timing of the commissioning of deep geological repositories in the financial mathematical model

The funds' provisioning period prescribed in the NEA/DDFO is 50 years from the commissioning of NPP and is entered in the financial mathematical model of the funds.

The date of commissioning of the deep geological repository is not stipulated by law, but it is specified in the disposal programme, which has to be approved by the Federal Council. It is possible that, as a result of postponement, the funds' target values could fall at the time of decommissioning due to discount rate effects and that coverage gaps could arise due to possible cost increases or negative yield developments on the capital market. The SFAO recommends entering the date of commissioning of the deep geological repository likewise as a fixed point in the financial mathematical model.

The SFAO found various inadequate regulations in the NEA that will now become more visible in the cost study with the decommissioning of NPP becoming more concrete. The scope for interpretation with regard to the definition of the post-operational phase or the decommissioning objective of "brown meadow" versus "green meadow" requires the fastest possible establishment of sufficient legal clarity.

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