

Impact of the taxes on used nuclear fuel on the fuel cycle economics in Spain

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Abstract-

In 2013, the Spanish government created two new taxes on used nuclear fuel. This article aims to present the results of an economic study carried out to compare the costs of long-term storage of used nuclear fuel -open cycle strategy-, with the cost of the strategy of reprocessing and recycling used fuel- closed cycle strategy- taking into account the impact of the new taxes on the global cost of the fuel cycle. The results show that the costs of open-cycle and closed-cycle spent fuel management, evaluated in Spain after the introduction of the taxes, are sufficiently similar (within the bounds of uncertainty), that the choice between both is predicated on other than purely economic criteria.

Index Terms- Deep geological repository (DGR); High level waste; Mixed oxide (MOX) fuel; Nuclear fuel cycle; Once-through; Reprocessing; Spent fuel management

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