

Financing of “New Nuclear” decommissioning

The role of actuaries

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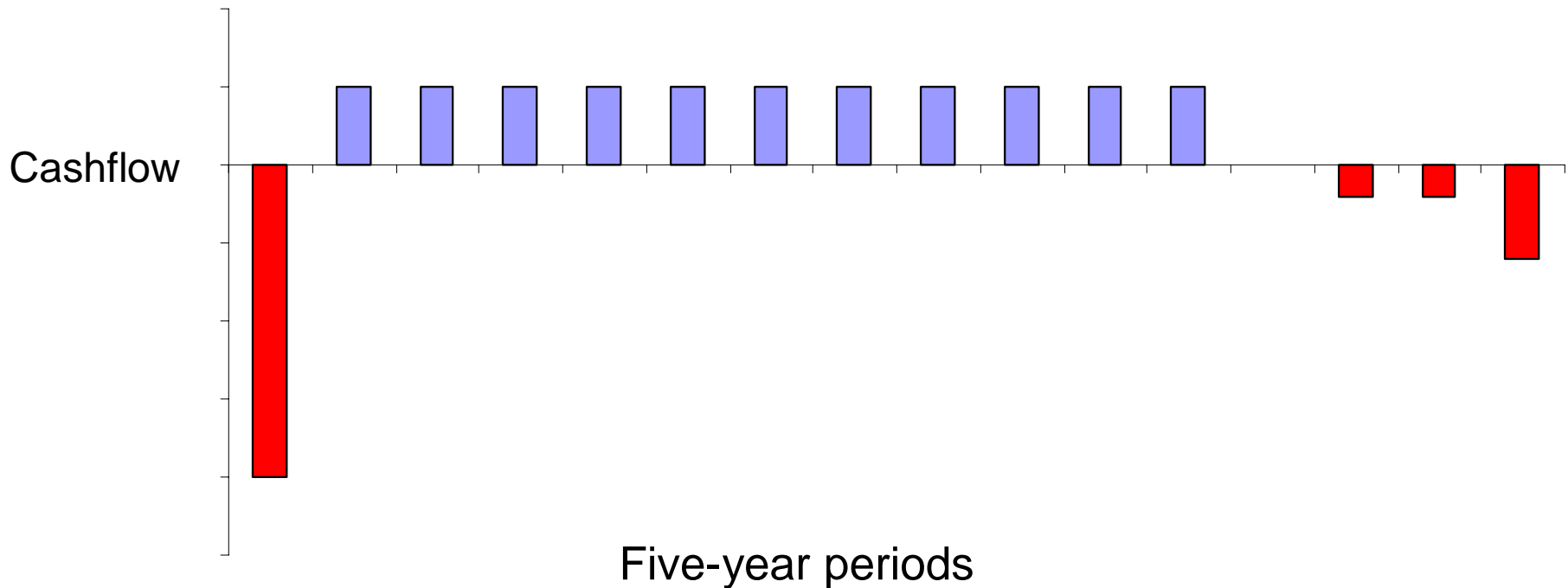
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“New Nuclear” power stations

- Government policy
- Long term nature
 - Build 5 years
 - Operate 40-60 years
 - Decommission 20 years plus
 - **Total up to 100 years**
- Economics of nuclear power
 - Capital intensive
 - Long cash flow duration
 - CfD contracts
- Government policy on “New Nuclear” – chances of recourse to the public purse “remote”
 - Need for a Decommissioning and Waste Management plan and Fund
 - Need for Nuclear Liabilities Financing Advisory Board

Generator's indicative cashflow profile (in real terms)

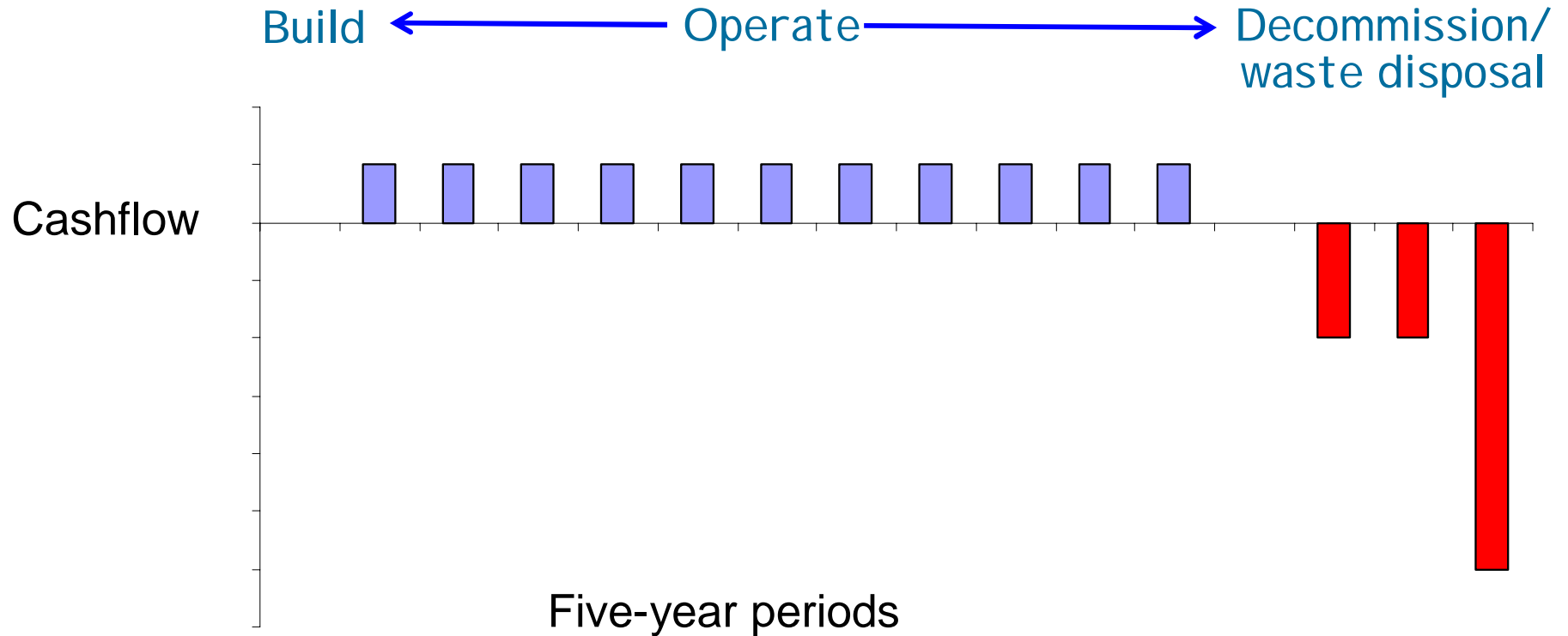
Build ← Operate → Decommission/
waste disposal



Decommissioning and Waste Management Fund

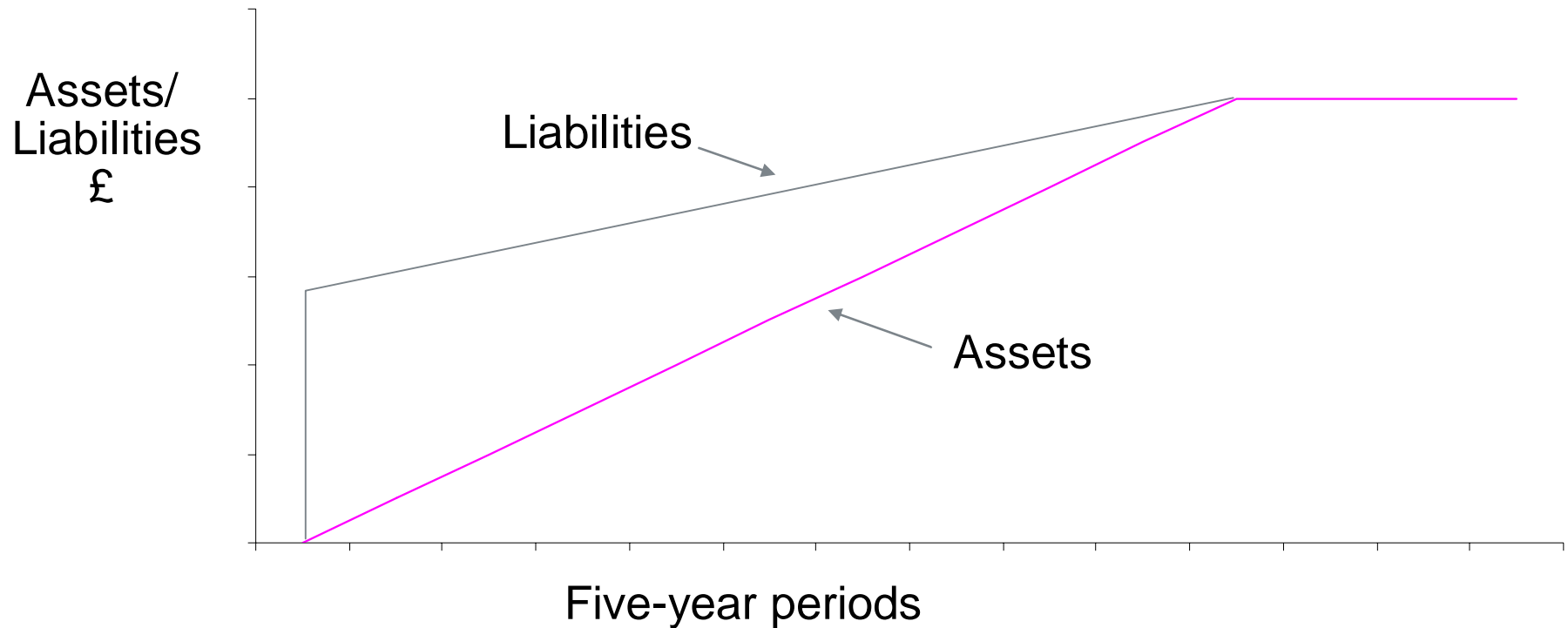
- Independent DWM Financing Fund, role and governance
- Prudent/ remote – probability of default
 - Economic risks
 - Design risks
 - Political risks
- Contribution mechanisms
- Surplus refund
- Estimates of costs and cost inflation

DWM Fund's indicative cashflow profile (in real terms)



DWM Fund Assets vs DWM Liability (in real terms)

Build ← Operate → Decommission/
Waste disposal



Issues for funding security

- Early Decommissioning Risk
 - First few years
 - Approaching end of life
 - Alternative funding sources – PCGs/ SPVs/ Insurance/ Captives
 - CfD impact on economic risks
- Cost modelling and cost inflation
 - Expanding funnel of doubt
 - Discount rate sensitivity
- Investment strategy
- Asset/ liability modelling
 - Allowance for uncertain outcomes
 - Prudent/ remote risk of failure

Role and value of actuaries

Role of Actuaries

- Working with Generators/ DWM Funds on fund design, and ongoing risk management
- Not involved in making scientific/ engineering assessments, but need to understand the nature of these estimates, and the range of possible outcomes.
- Working with DWM Funds on fund design, and ongoing risk management
- Design of insurance contracts, especially for EDR?

Value of Actuaries

- Familiar with both sides of the balance sheet
- Risk identification
- Risk mitigation
- Used to very long term nature
- Inherent understanding of mismatching risks



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