

Effect of price controls on investment incentives

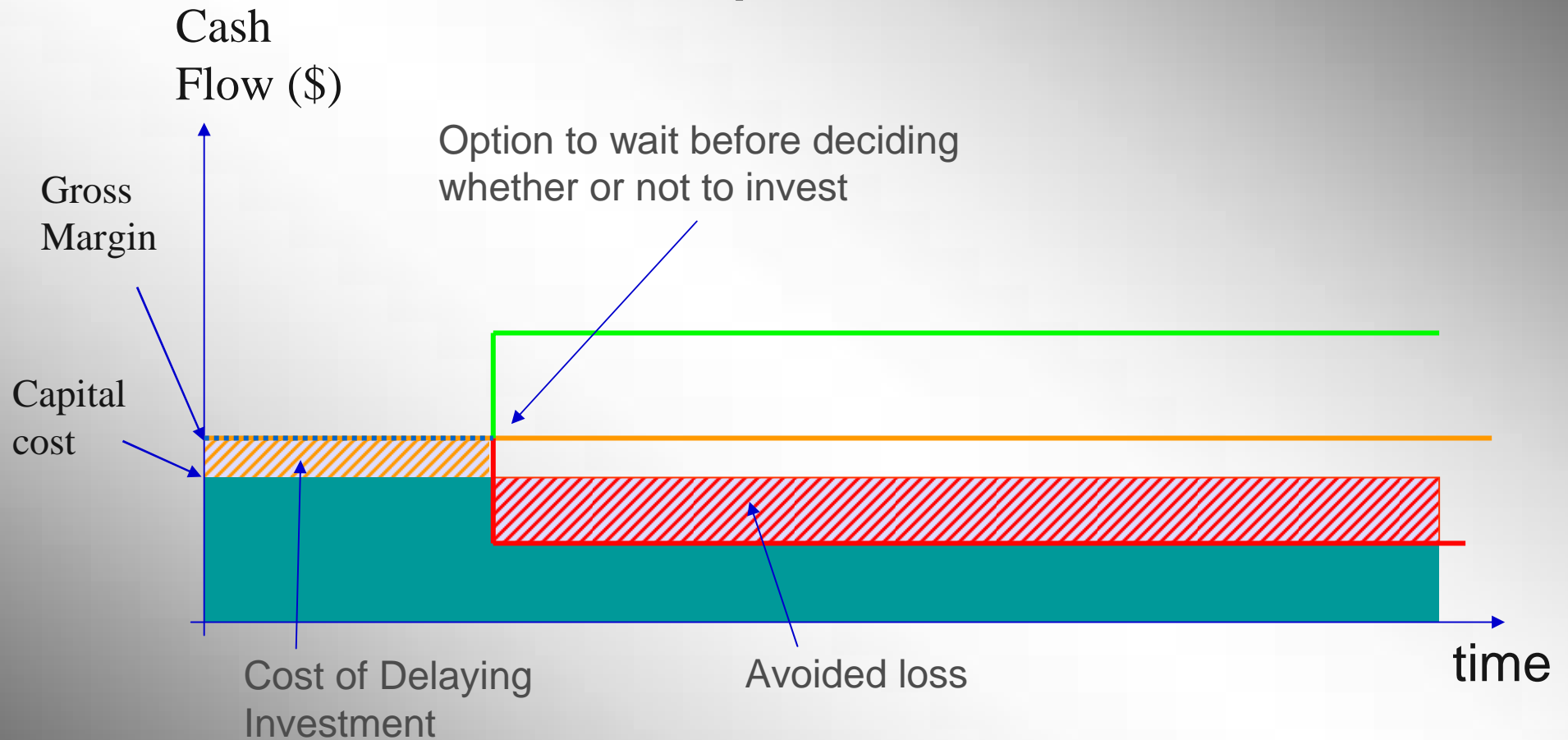


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Analysing the decision to invest under uncertainty – the ‘real option’ method

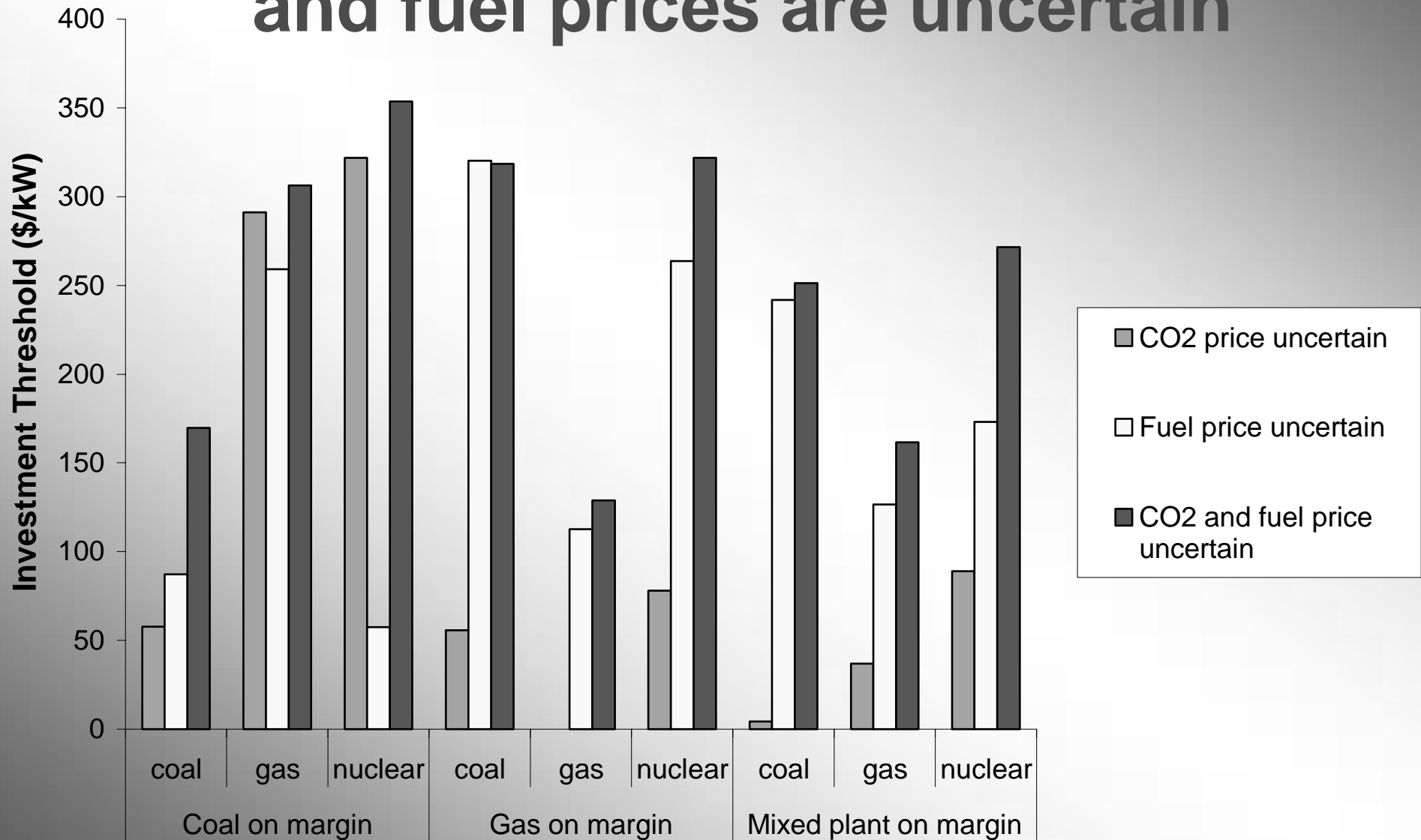


New investment rule:

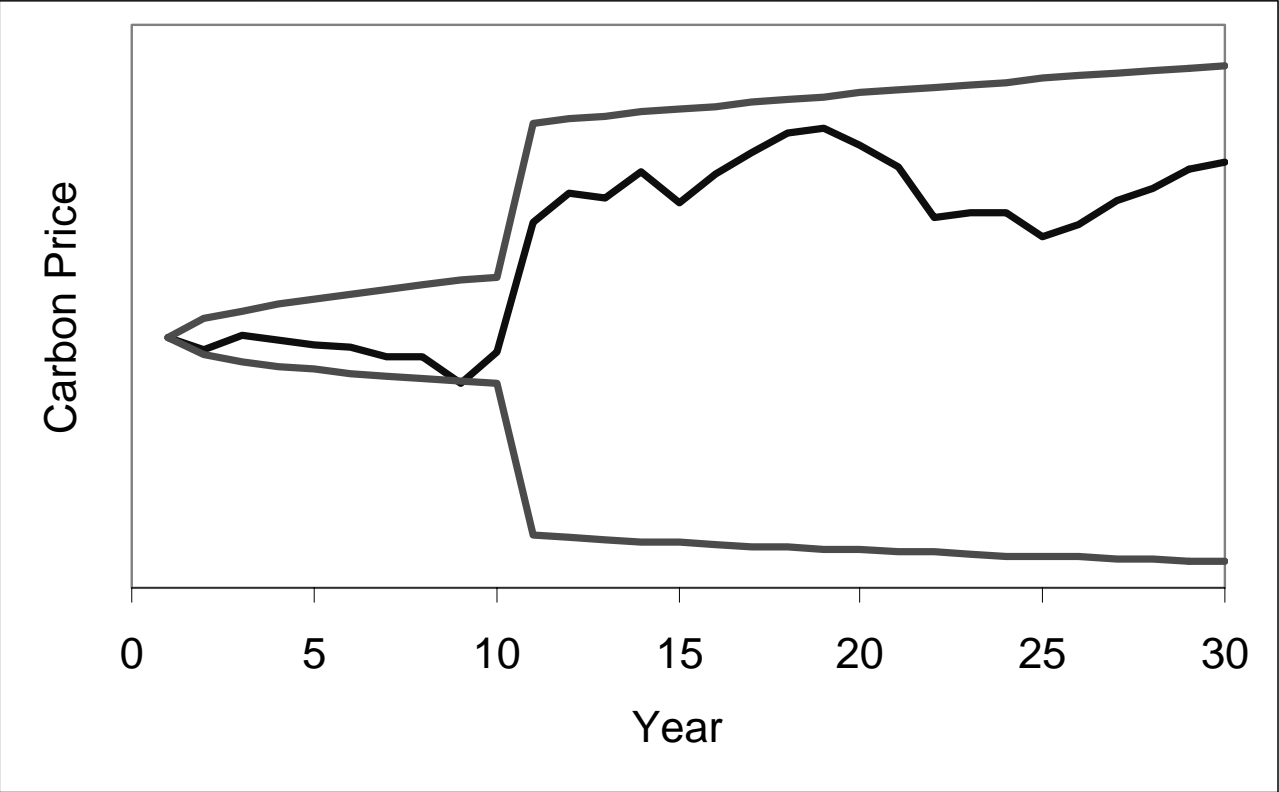
Invest **NOW** if:

cost of delaying > value of delaying

Investment thresholds when CO₂ and fuel prices are uncertain



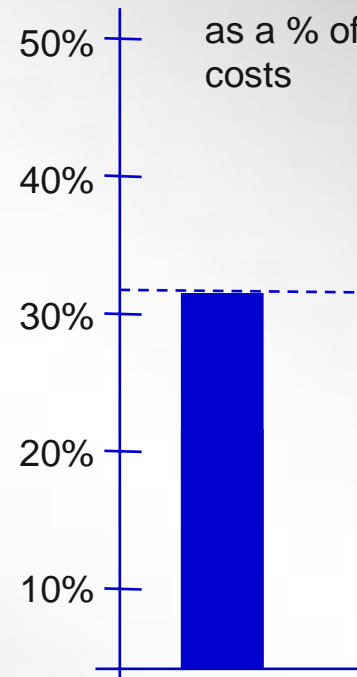
CO₂ price uncertainty



Effect of CO₂ price uncertainty on investment threshold



Additional net revenue required as a % of capital costs

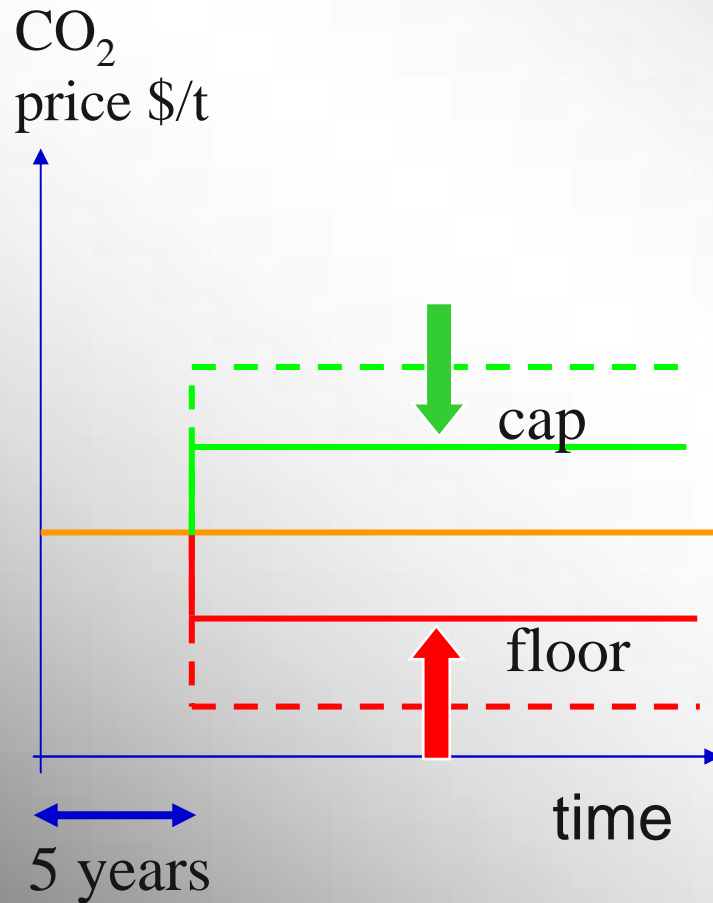


1. Nuclear

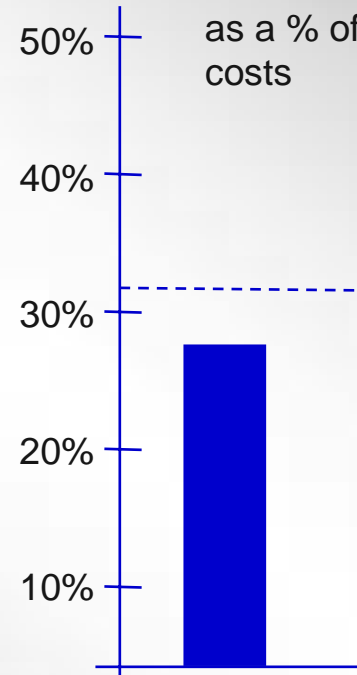


2. CCS

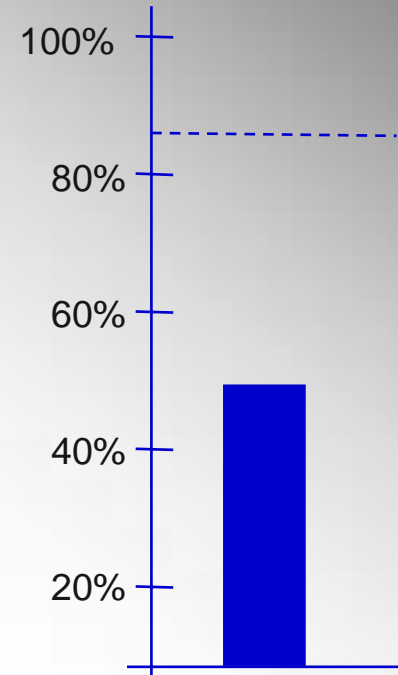
Effect of CO₂ price uncertainty on investment threshold



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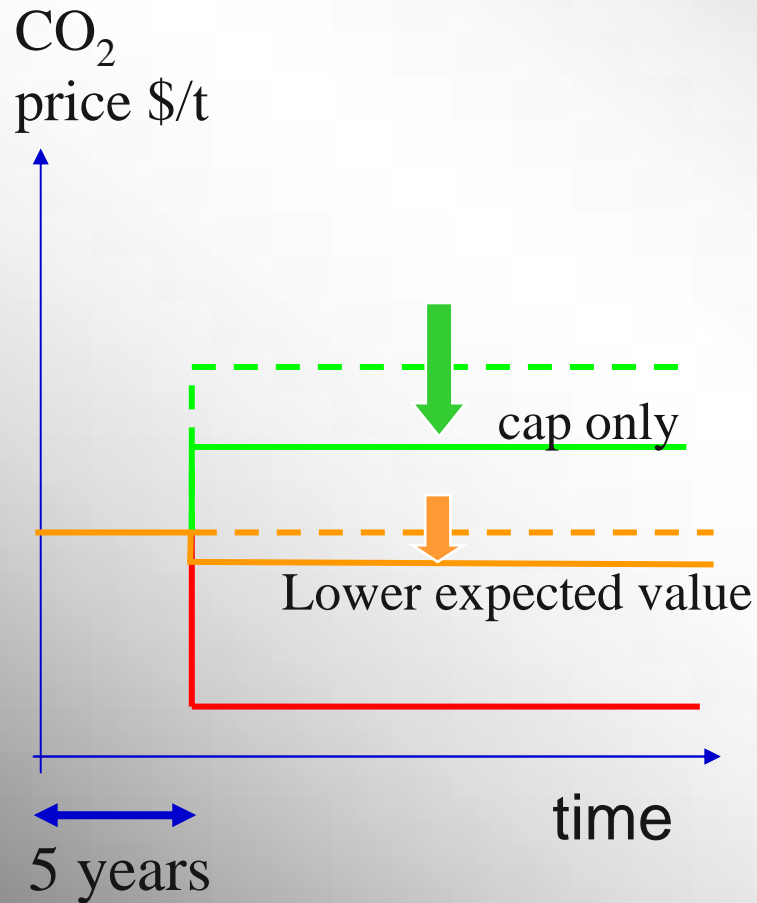


1. Nuclear

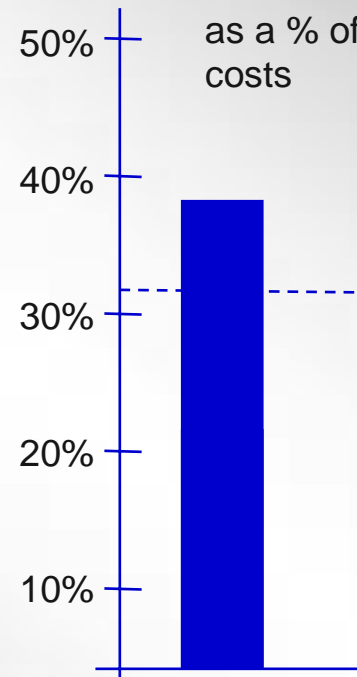


2. CCS

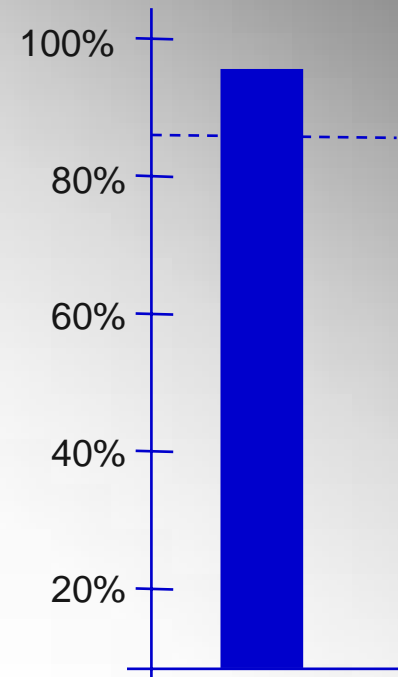
Effect of CO₂ price uncertainty on investment threshold



Additional net revenue required as a % of capital costs



1. Nuclear

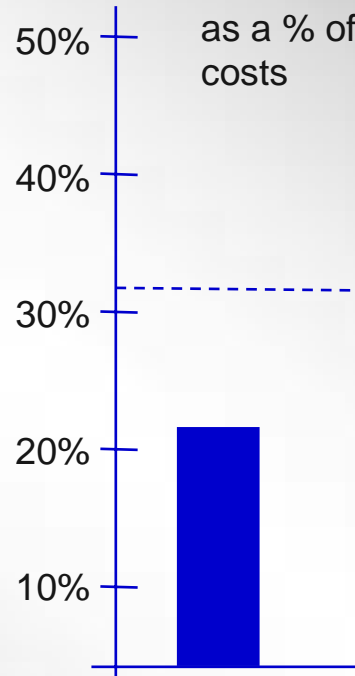


2. CCS

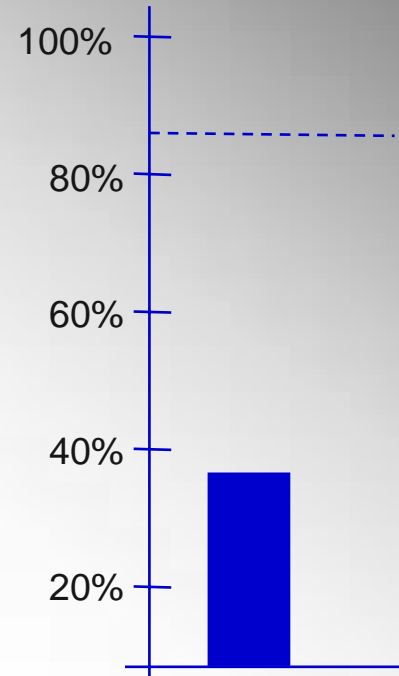
Effect of CO₂ price uncertainty on investment threshold



Additional net revenue required as a % of capital costs



1. Nuclear



2. CCS

Conclusions

- **CO₂ price uncertainty matters for some technologies in some types of market**
- **CO₂ price caps decrease the expected average income for low-C technologies**
- **Price caps and floors can reduce effects of uncertainty, if:**
 - **Caps and floors themselves are certain**
 - **They are 'tight' – i.e. expected to be exercised for a significant amount of time**
- **Extending the period of 'stable' prices from 5 to 10 years has the strongest effect in reducing the investment threshold**

Contacts

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