

# Decommissioning Contracts for Wells and Removals

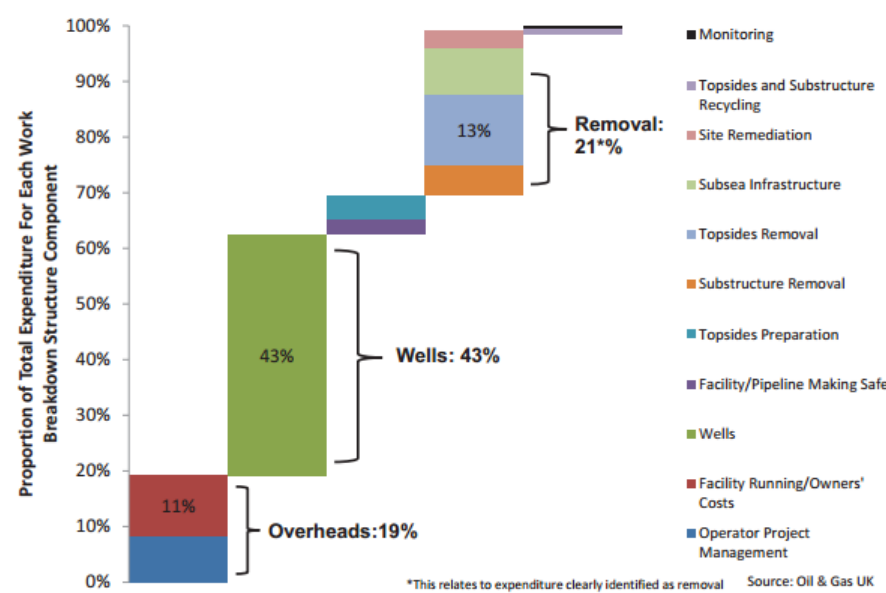
Anna Sutherland



## Motivations

- UKCS decommissioning expenditure forecast at £10.4bn over next 8 years
- Removals and wells account for over 60% of total cost

Figure 5: Forecast of Total Decommissioning Expenditure on the UKCS by Component of the Work Breakdown Structure, from 2013 to 2022



- These stages are outsourced to specialist third party contractors
- Traditional contracts allocate 100% of cost risk to either contractor or operator

**Objective: To identify efficient contracts for wells and removals which share risks and control costs**

## Methodology

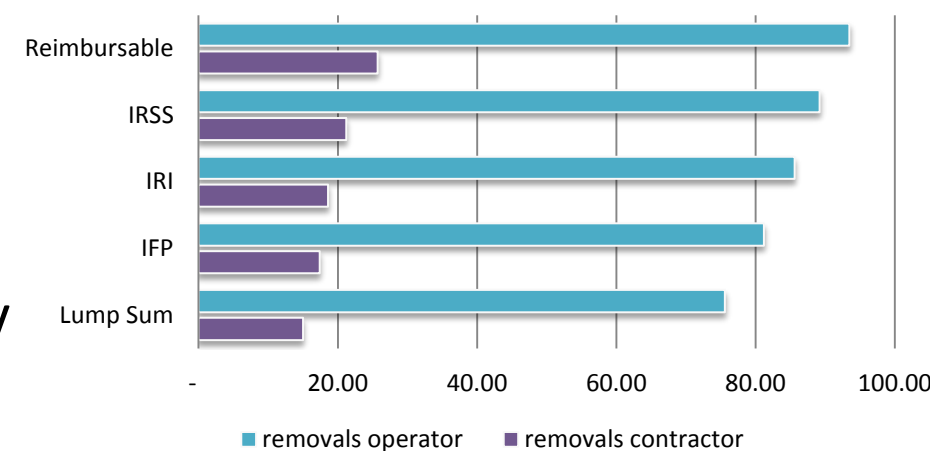
- 5 contracts analysed:
  - 2 'traditional' : Lump sum , Reimbursable
  - 3 risk/reward sharing : Incentivised Fixed Price, Incentivised Reimbursable, Incentivised Reimbursable Slab Basis

- Deterministic cost model to calculate base costs
- Monte Carlo analysis to simulate cost risks (assumed higher probability of cost overrun) and calculate expected operator payment and contractor profit

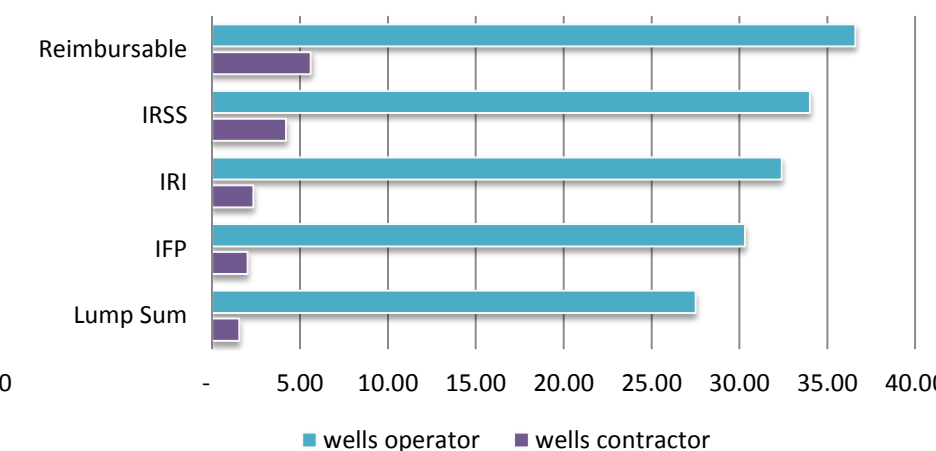
## Results

- For both activities, profit and payment highest under reimbursable and lowest under lump sum.

Removals: Expected Profit & Payment

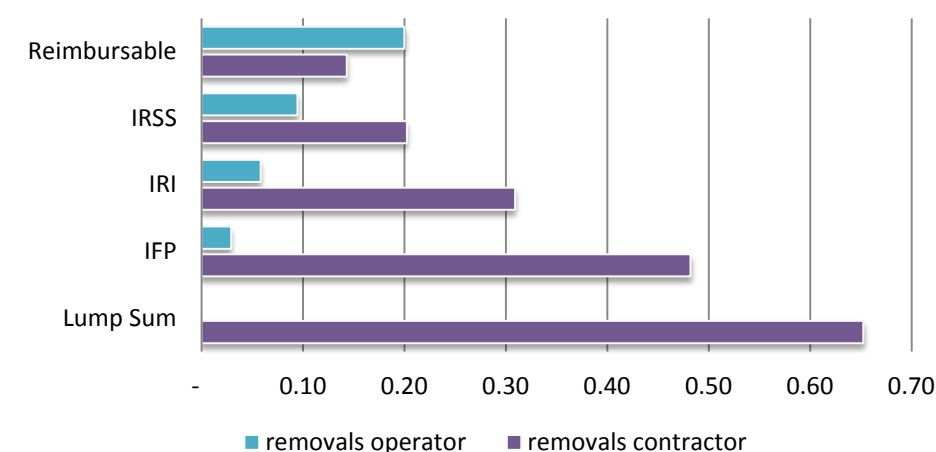


Wells: Expected Profit & Payment

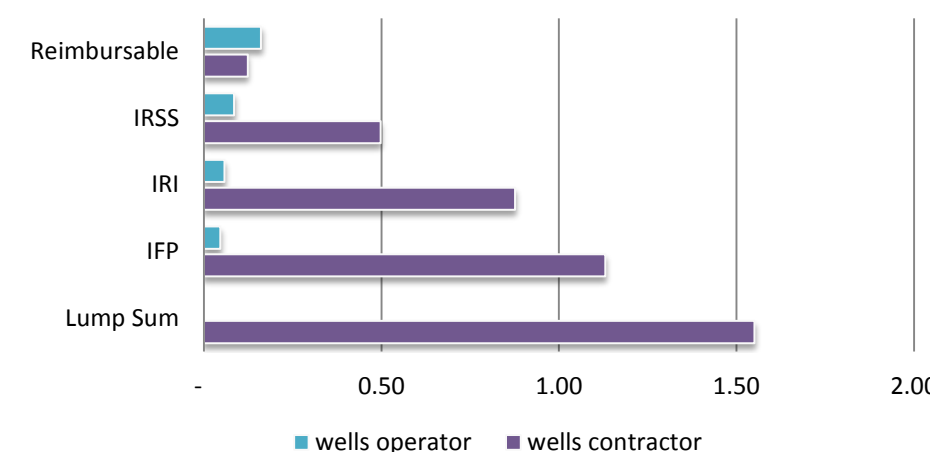


- Reimbursable returns the greatest (least) cost variability to operator (contractor)

Removals: Coefficient of Variation



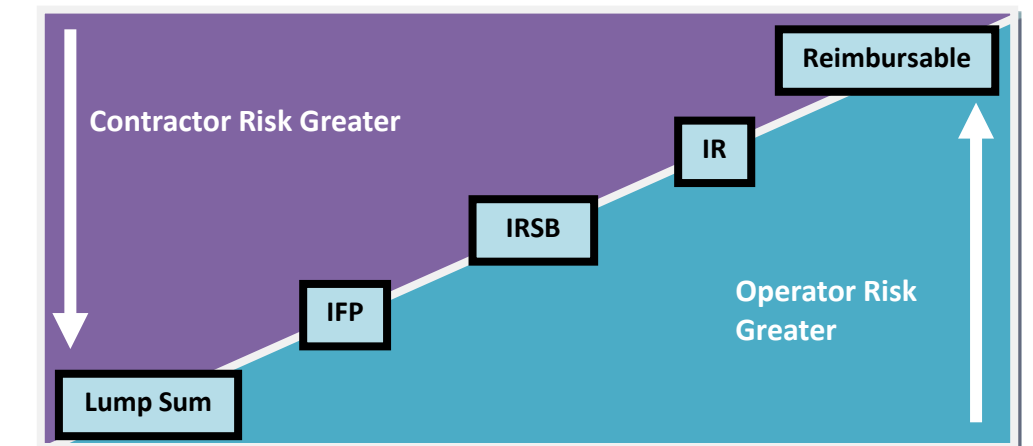
Wells: Coefficient of Variation



- Incentivised contracts share the cost risks

## Conclusions

- Including a bonus/penalty element results in risk sharing



- Offshore activities are inherently risky, therefore the three risk/reward contracts are preferable to either lump sum or reimbursable

- Bonus schemes should be implemented to incentivise cost control

- Penalties should be used sparingly to encourage development of the service sector

- By developing capabilities and capacity in the service sector, total economic value can be generated from decommissioning