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## Energy Transitions Under the UK Regulatory Regime – does the Polluter Pay?

*The ‘Polluter Pays’ is one of two principles of sustainable development upon which the UK’s Oil and Gas Decommissioning Policy is based. Its application seeks to ensure that those who benefited from the exploitation of hydrocarbons beneath the UKCS, pay the costs of decommissioning – a scope which includes a ‘liability in perpetuity’ for that which is left behind.*

*Historically, following the decommissioning of industries, negative legacies often remain. These can be both physical, such as nuclear waste, or cultural, such as the poverty found within old mining communities following the decline of the UK’s coal mining industry.*

*This presentation shall highlight the key legal provisions within decommissioning law that define the post-decommissioning regime and draw upon examples from previous energy transitions in the UK to discuss whether the regulatory regime found on the UKCS is set to deliver a positive legacy for the UK’s offshore oil and gas industry or become an exemplar of unsustainable development.*

Presented @ Decom North Sea Conference 18 May 2022



# Decommissioning

- **One phase of a much wider project**
- **Underpinned by principles of Sustainable Development**
  - “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
- **Precautionary Principle – first, do no harm**
  - *Para 1.1 “aim to achieve a clear seabed”*
- **Polluter Pays – those responsible should rectify any harm**
  - *Para 1.1. an expectation that “those who have benefitted from exploitation or production hydrocarbons in the UKCS to bear the responsibility for decommissioning”*
  - *Para 17.2: Residual liability remains with the owners in perpetuity...*

# A Principle of Equity

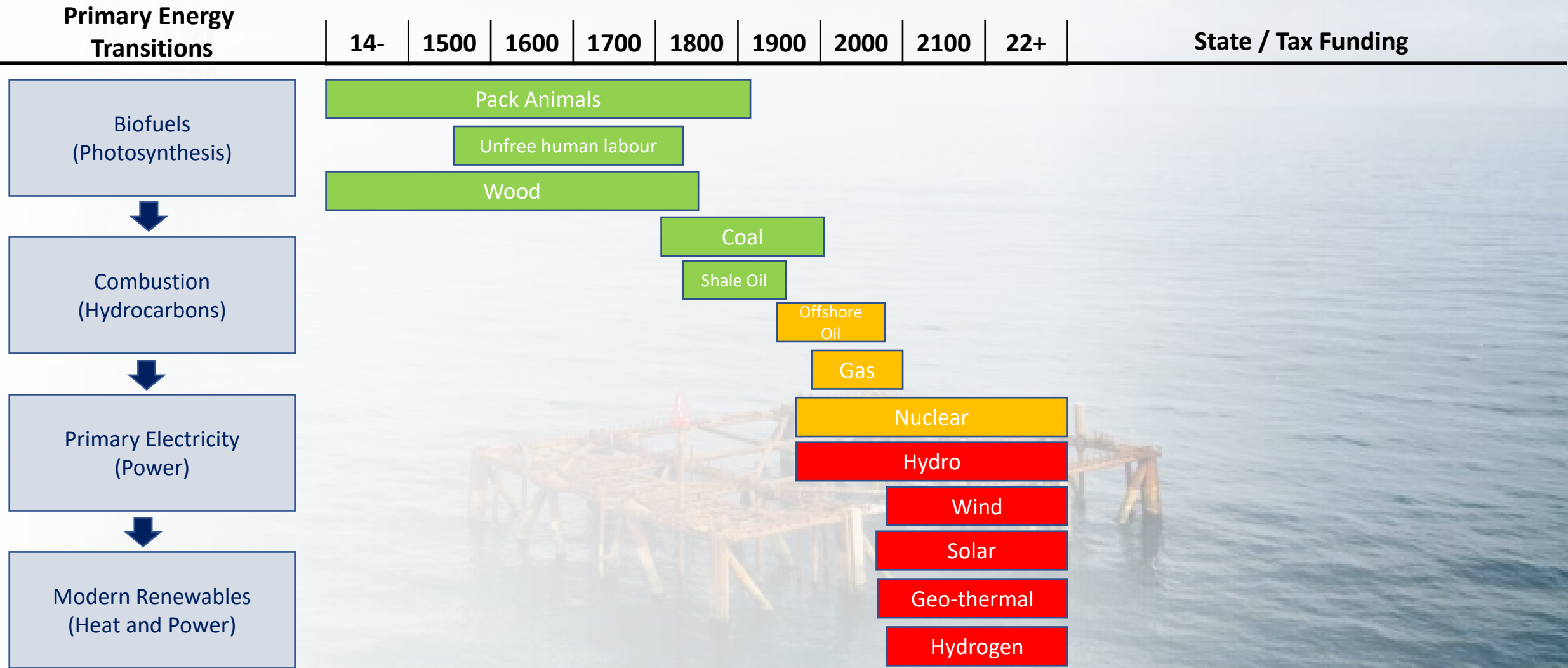
- **The Polluter Pays is about equity – fairness**
  - It provides redress to an injustice
  - ‘Morally’, it is the right thing to do?
- **Its effectiveness requires compensation > total harm**
  - But what is the full scope of the harm?
- **As a principle The Polluter Pays has a long history**
  - It doesn't seem to work!



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Risk-based perpetual  
monitoring  
and remediation

# Decommissioning within Energy Transitions



Green = decommissioned, Yellow = decommissioning, Red = Producing

# Decommissioning within Energy Transitions

## Primary Energy Transitions

- | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | +

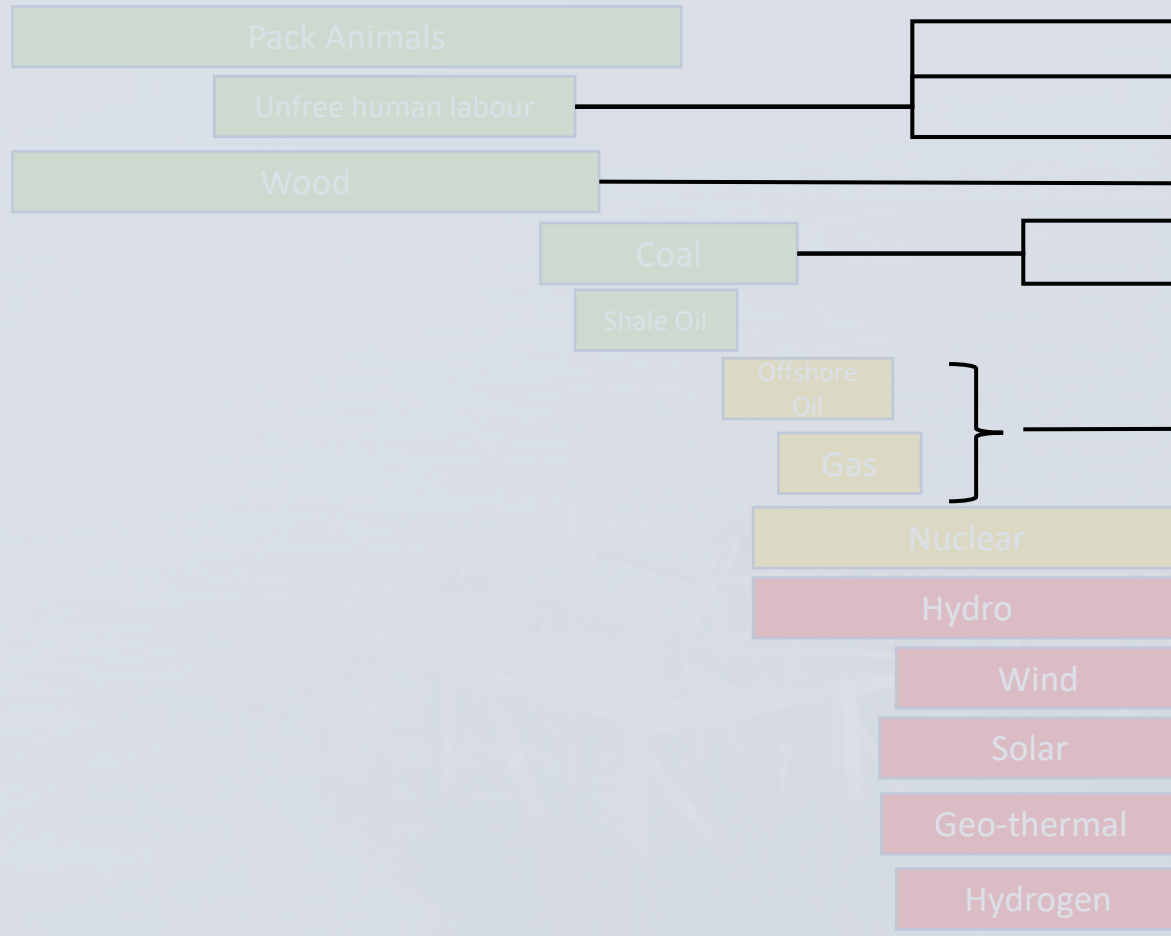
Legacy funded through State / Tax

Biofuels  
(Photosynthesis)

Combustion  
(Hydrocarbons)

Primary Electricity  
(Power)

Modern Renewables  
(Heat and Power)



- Feudal servants £0 reparations
- Atlantic Slavery @ 40% GDP/180 years
- Jamaica is seeking reparations (£7.6bn)
- The Forestry Commission
- The Coal Authority @ ~£40m/year
- Scottish Coal Bankruptcy cost £71m
- £800m funding for CCUS
- Geological storage @ £40-50Bn + O&M

# UKCS Legacy Inventory

Legacy	Scope	Acknowledged Liability	Provision in Place
Monitoring and Remediation	Residues and Remains	See GBS	FLTC: ~£42m + £4m Decom estimate: £300m Owner: Field owners
Pipelines (above seabed)	<40,000km <sup>1</sup>	60-100 years	
Pipelines (below seabed)	5,300km <sup>2</sup>	60-100 years	
Drill cutting piles	?	See Jacket / GBS	
Jacket footings	31 @ 385,600 tonnes <sup>3</sup>	400-500 years	
GBS	9 @ 1,776,781 tonnes <sup>4</sup>	~1000 years	
Abandoned Wells	>8,000 <sup>5</sup>	0 years	Allowance: £0 Owner: The Crown (?)

1. As presented by BEIS

2. FLTF MOU

3. Assumes 1/3 of jacket by weight removed, 2/3 left in situ. Based on OSPAR figures presented by BEIS

4. OGA Wells Insight Report 2020

Raising of methane emissions by between 6 and 37% - Bottner et al (2020) <https://doi.org/10.1016/j.ijggc.2020.103119>



# The Creation of the Legacy

- **If we had followed our rules, there would be a 'clear' seabed**
  - *Any installations which are abandoned or disused must be entirely removed*<sup>1</sup>
- **The legacy was created as a result of the 'Political Economy of Speed'** <sup>2</sup>
  - Revenues were necessarily (?) prioritised
  - Political ethos and 'regulatory capture' led to an inability to re-adjust<sup>3</sup>
  - Will the risks of the legacy we created ultimately be realised?
- **The risk calculation for leave in situ**
  - Status quo: <£350m + any additional costs of residual liability
  - Risk: the cost of full removal and the likelihood of having to pay
- **What is left in situ material and whose is the residual liability?**
  - It is not a perpetual wreck or waste
  - What could happen: events and/or regulatory change
  - The 'owners' are not perpetual entities

1958 LoS Convention on the Continental Shelf, Article 5(5), UN

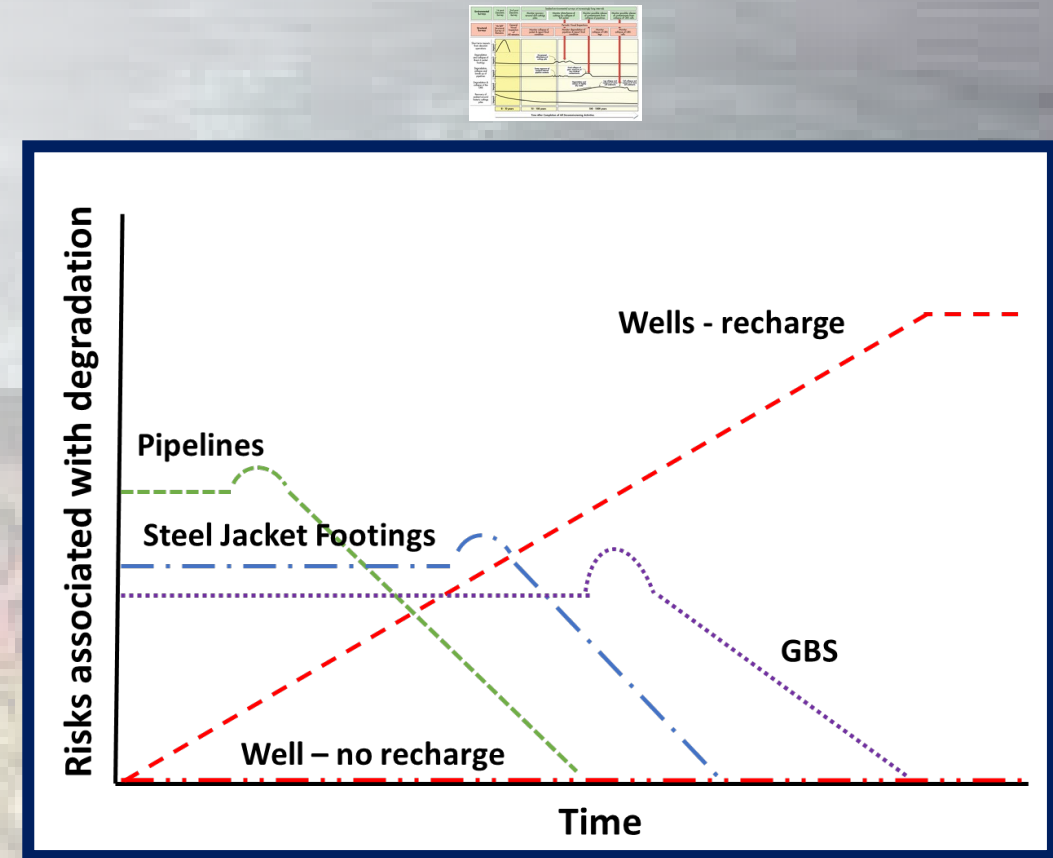
The title of chapter 4 of W.G Carson's *The Other Price of Britain's Oil*

Woolfson and Beck (eds.) *Corporate Responsibility Failures in the Oil Industry*. Amityville: Baywood. pp.15-62. ISBN: 0-89503-293-7. (1)



# The Cost of the Legacy

Residual Liability	Known Known, Known Unknown, Unknown Unknown
Surveys 1 – 10 years	Known known
Surveys 11 – 100 years	Known known
Surveys 100 – 500 years	Known known
Surveys 501 – 1000 years	Known known
32 x Steel Jacket Footing Removal	Known unknown
Drill Cutting Pile Removal	Known unknown
1000 years of Well Intervention	Known unknown
Full Removal of 9 x GBS	Known unknown
Perpetual Survey programme post 1000 years	Unknown unknown
Perpetual Programme of Well Intervention	Unknown unknown
Remediation of abandoned well blow out(s)	Unknown unknown



*Known known – sufficient precedent exists to make an acceptable estimate within a realistic margin or error*

*Known Unknown – an acceptable order of magnitude estimate can be made but the likelihood of the costs being realised are unknown*

*Unknown Unknown – an estimate within a realistic margin of error cannot be made neither can a realistic assessment of likelihood be assumed*



# Will the Polluter Pay?

The background of the slide features a large, yellow and red offshore oil rig, likely a Brent Spar, situated in the middle of the ocean. The rig is a complex structure with various platforms and cranes. The water is a deep blue-grey color, and the sky is overcast. The overall tone is somewhat somber and industrial.

- **Historically the generation that pollutes has not paid in full**
  - Whether this is fair is a matter of perspective
  - The result has been a socialisation of commercial risk
  - Firms are neither moral, nor immoral – they prioritise profit
  - Regulatory regimes have enabled unfunded debts upon future generations
- **An enduring legacy exists on the UKCS**
  - A costly legacy has been created whose cost cannot be realistically be estimated
  - Firms are not suitable entities to discharge the residual liabilities
- **The existing regime will result in the socialisation of commercial risk**
  - Prioritises generational needs, not intergenerational equity
  - Doesn't provide for the uncertainty of the enduring potentially perpetual liability

# Can the Polluter Pay?

- **An estimate needs to be limited in scope and duration**
  - Liability cannot be perpetual
- **The State is the only perpetual entity**
  - Liabilities either have or will ultimately be transferred to the State
  - The government should ensure that that this transfer is equitable
- **Provision for enduring unknowable unknowns must be made**
  - Market mechanisms are sufficiently flexible and enduring to accrue additional funds
- **Decommissioning has been known about for 60 years**
  - But it is a unpalatable short term cost with avoidable long term implications
- **It is a regulatory, not technical challenge**
  - What legacy is not about what we can't do, it is about what we want want