

Gas
Transmission

Bacton Strategy webinar

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Who are we?



Jonathon Thorns

System Development
Engineer



**Jenny
Pemberton**

Stakeholder
Engagement Manager

Logistics



Should last for approximately about 45 min



Polling via webex



Your questions are welcomed throughout via chat function



All callers will be placed on mute

Agenda for today

01 – What have we done

02 - Costs

03 – Cost benefit analysis

04 – Going forward

05 - Questions

Quick Poll – Getting to know you

1. Please tell us your name

2. Which of the following best describes you / your organisation?

3. On a scale of A to E, where A is know nothing and E is know a great deal, how much would you say you know about National Grid Gas Transmission’s operational activities?

- A. Know nothing
- B.
- C.
- D.
- E. Know a great deal

4. On a scale of A to E, where A is not impacted at all and E is impacted a great deal, how impacted are you or those you represent) by what we’ve just spoken about?

- A. Not impacted at all
- B.
- C.
- D.
- E. Impacted a great deal

5. On a scale of A to E, where A is not interested at all and E is interested a great deal, how interested are you (or those you represent) by what we’ve just spoken about?

- A. Not interested at all
- B.
- C.
- D.
- E. Interested a great deal

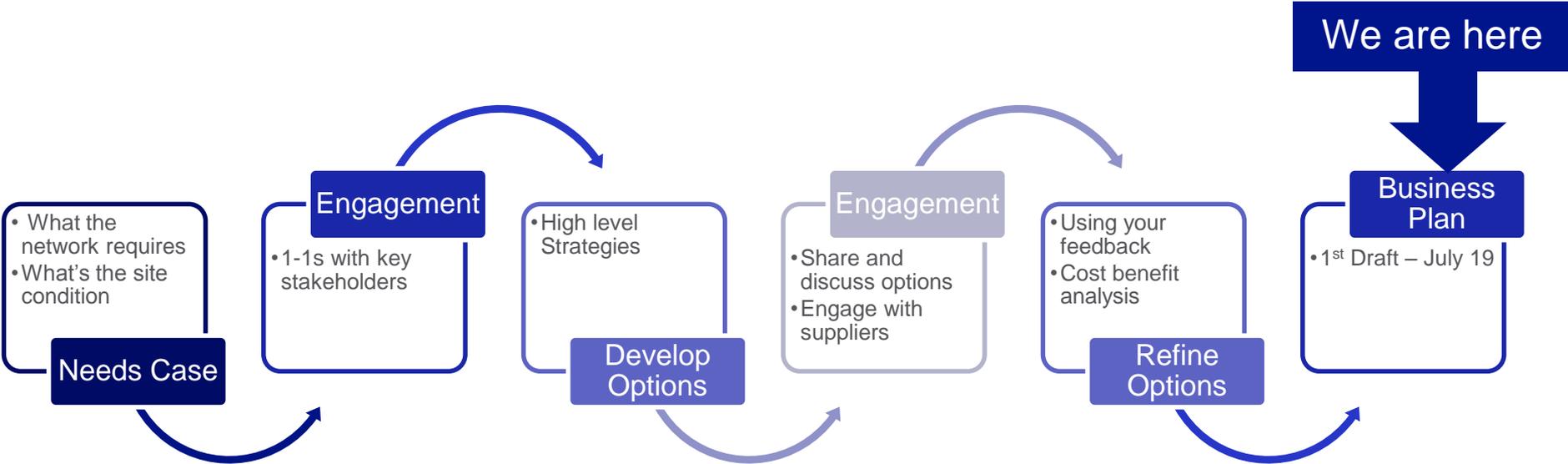
A quick reminder: The drivers for change

1. Age related asset health and obsolescence issues
2. Changing supply and demand patterns

So we set out to understand

1. Customers and stakeholders needs of the site now and into the future
2. Impacts of not being able to meet those needs
3. Implications for the local communities
4. Understand implication, cost and timings around the different options

A quick reminder: Journey so far



02

What have we
done...



Since we last spoke

- Developed more detailed costs for all preferred options
 - Deliverability assessment of all options
 - Third-party study for a new brownfield terminal
 - Including a high-level project plan, and construction strategy for a new terminal
- Conducted a high-level cost benefit analysis
 - Taking into account constraints, economic and safety factors

Since we last spoke

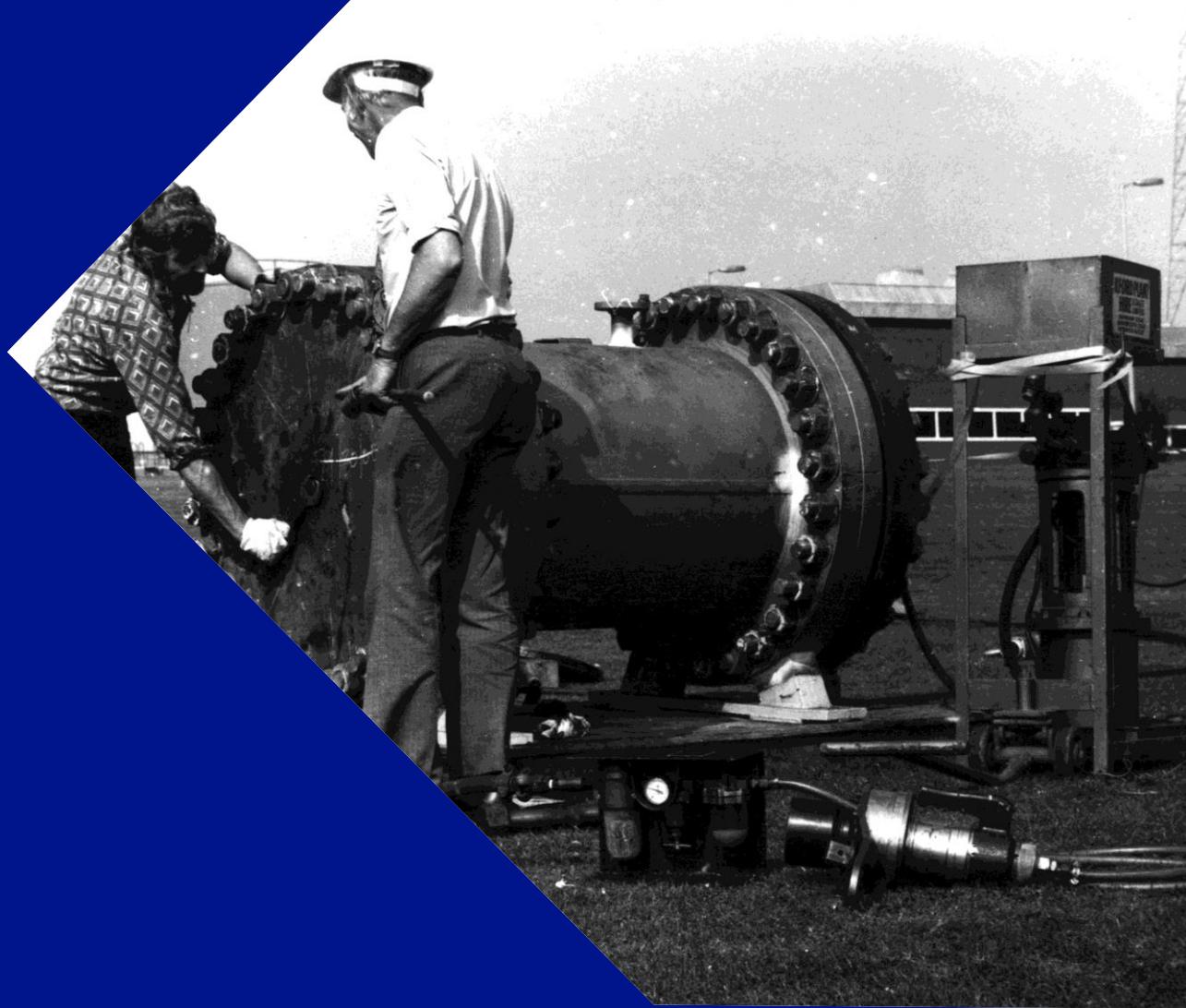
- Continued stakeholder engagement through
 - SNS operators meeting
 - Meeting directors of key operators to set out our strategic view of site
 - Understanding the strategic plans for the Southern North Sea
 - “Meet the buyer” conference
 - Early engagement of the local supply chain

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03

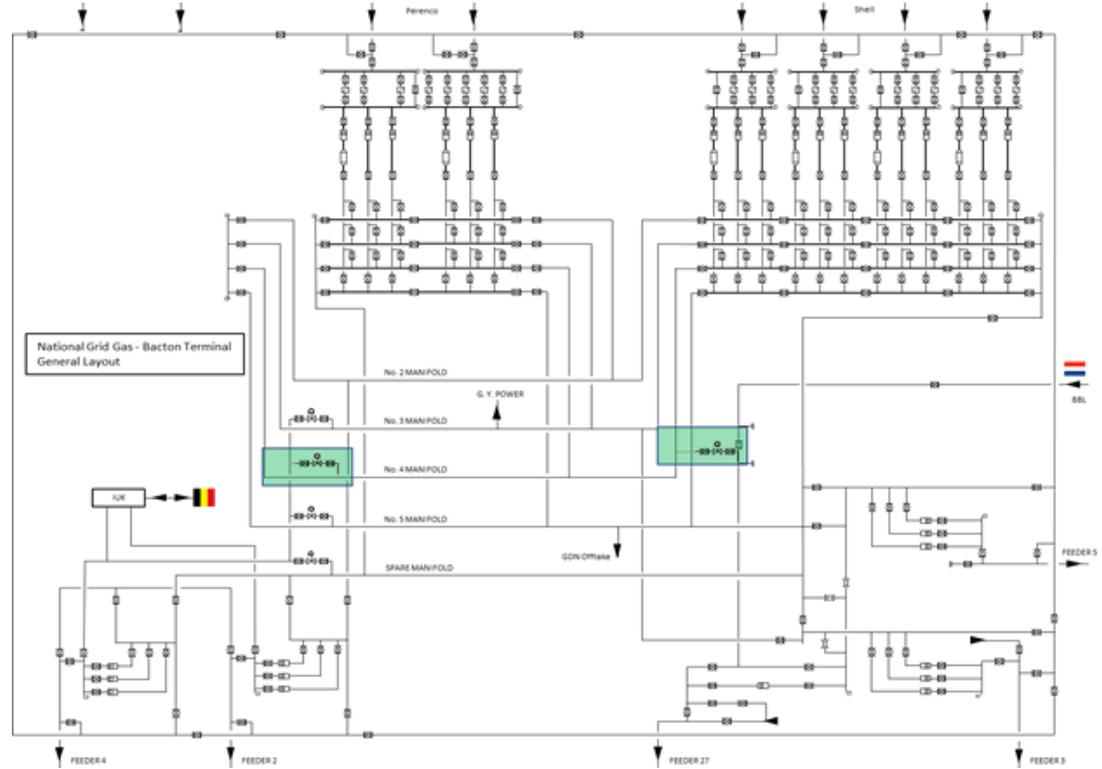
Costs

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Option 1 - Like for Like Asset Replacement

- Involves replacement of a number of assets
- Estimated 20 yrs of work



Option 1 - Like for Like Asset Replacement

- You liked...

Known
Operation

Resilient/
flexible

No long-term
outages

Proven gas quality
and CV capping
capability

Pace allows
future variance

- Our benefits
 - Known operation
 - Known construction

- You didn't like.....

Complex
integrated
planning

Historical
problems
remain

High
consumer
costs

Uncertainty of
long-term
justification

- Our concerns
 - Cost
 - Limited future expansion
 - Complex planning
 - People risk (20 years on site)

Option 1 - Like for Like Asset Replacement

- 2021-2026 – Extensive asset health works to bring site up to standard.
- 2026+ - Extensive valve replacement works to enable reliable operation

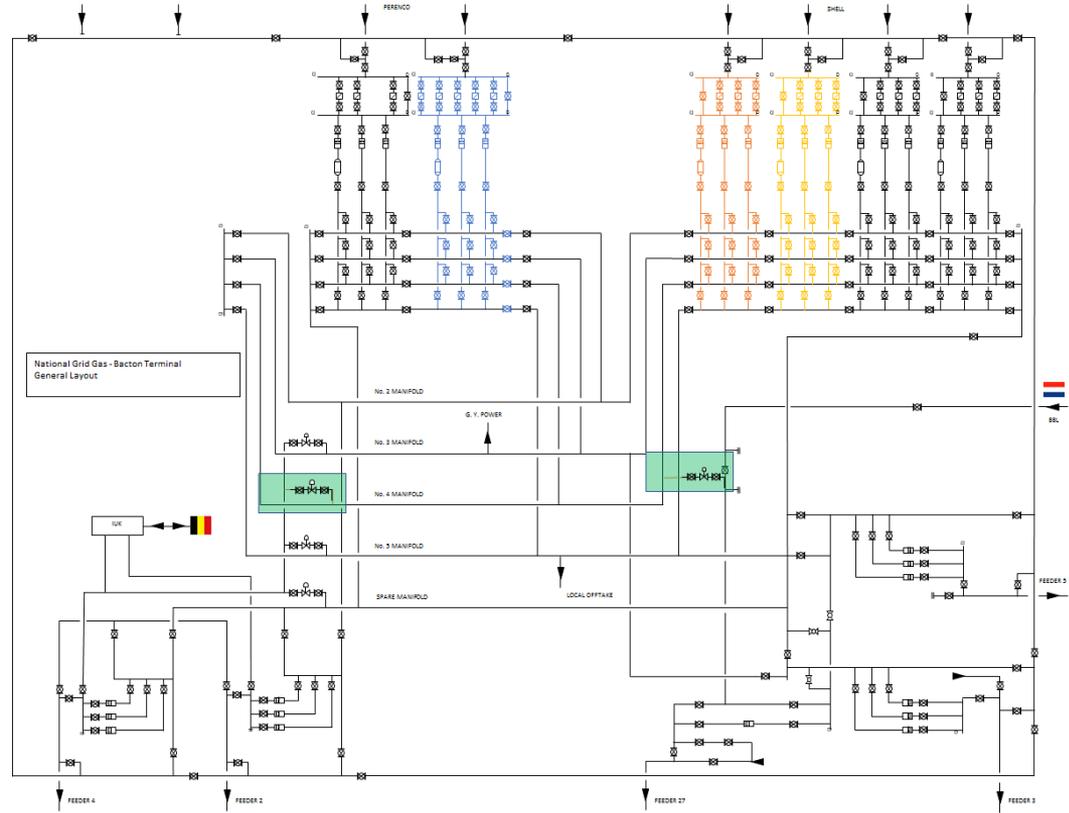
	2021-2026 (£m)	2026-2031 (£m)	2031-2047 (£m)
Asset Health	87.01	36.46	165.63
New Construction	2.61	0.00	0.00
Decom	4.52	0.00	9.07
Opex	14.97	14.97	34.78
		Total	370.02

Option 2 - Rationalised Asset Replacement

- Rationalise incomers
- Asset health work on remaining equipment
- Estimated 15-20 years of work



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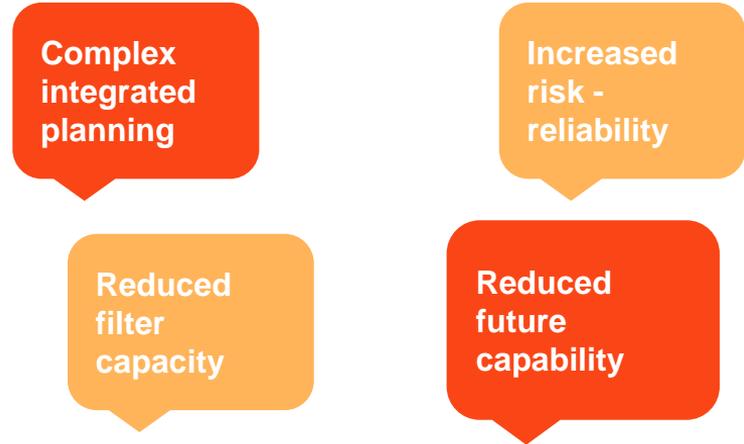
Option 2 - Rationalised Asset Replacement

- You liked...



- Our benefits
 - Known operation
 - Known construction
 - Reduced capacity = Less assets

- You didn't like...



- Our concerns
 - Cost of constraints
 - Limited future expansion
 - Complex planning
 - People risk

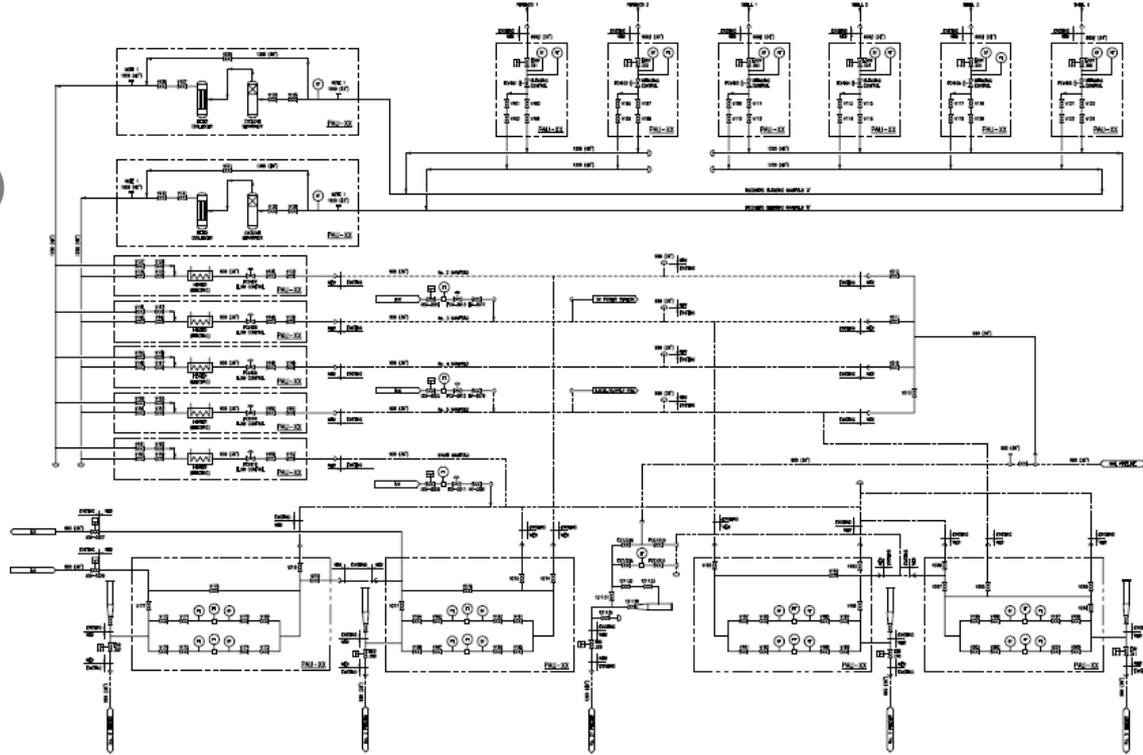
Option 2 - Rationalised Asset Replacement

- 2021-2026 – Extensive asset health works to bring site up to standard (Similar to option 1)
 - 2026+ - Extensive valve replacement works to enable reliable operation
 - This option increase risk and cost of constraining entry
-

	2021-2026 (£m)	2026-2031 (£m)	2031-2047 (£m)
Asset Health	92.34	42.03	110.90
New Construction	2.61	0.00	0.00
Decom	4.52	3.02	6.05
Opex	14.97	11.22	27.59
		Total	315.25

Option 3 - New Design Terminal

- New Brownfield site (Greenfield to be considered)
- Estimated 5 yrs
- Diagram opposite is indicative



Option 3 - New Design Terminal

- You liked...

Quick delivery limits local impact

Efficient

Opportunity to separate other assets

Reduced complexity

Best use of land

Future Proof

- Our Benefits
 - Future proofed
 - Reduced cost
 - Efficient build
 - Modern, integrated systems

- You didn't like...

Risk of Cross contamination between supplies

New skills required, external risk

Wider costs unknown

- Our concerns
 - New approach/uncertainty
 - High upfront cost

Option 3 – New Design Terminal

- 2021-2026 – Extensive build programme for new terminal
- 2026+ - Limited asset health works, constrained to “ongoing” maintenance.

	2021-2026 (£m)	2026-2031 (£m)	2031-2047 (£m)
Asset Health	16.59	5.27	24.37
New Construction	143.84	0.00	0.00
Decom	2.78	9.07	6.03
Opex	14.97	2.99	9.58
		Total	235.49

Overview

Total	Asset Health		Rationalise		Brownfield Terminal
Asset Health (£m)	289.10	244.00	257.97	245.27	46.24
New Construction (£m)	2.61	2.61	2.61	2.61	143.84
Decom (£m)	13.59	13.59	13.59	13.59	17.87
Opex (£m)	64.71	60.93	57.12	53.78	27.54
	370.02	321.13	331.29	315.25	235.49

Quick poll

Is there anything else you would like to know that would help inform your view?

Yes

Unsure

No

Please explain your answer

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Cost Benefit Analysis

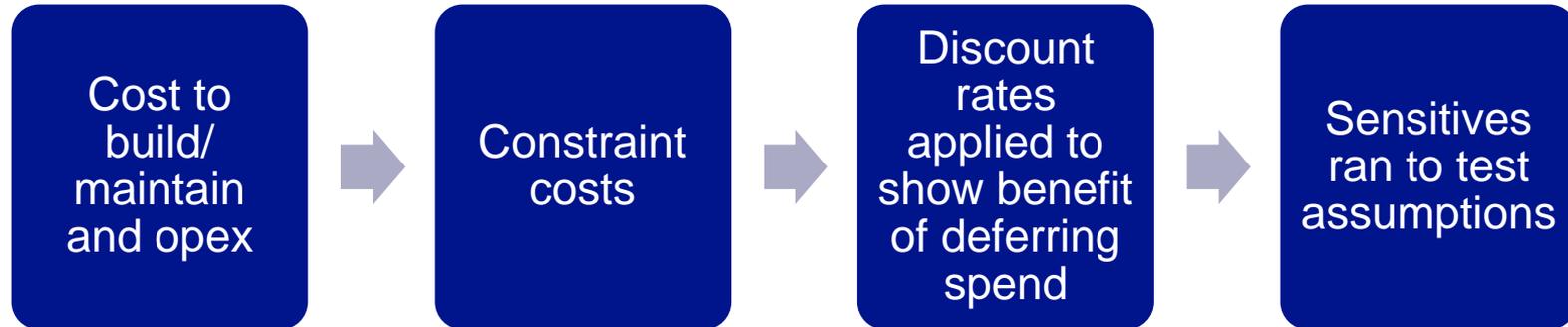
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Cost Benefit Analysis

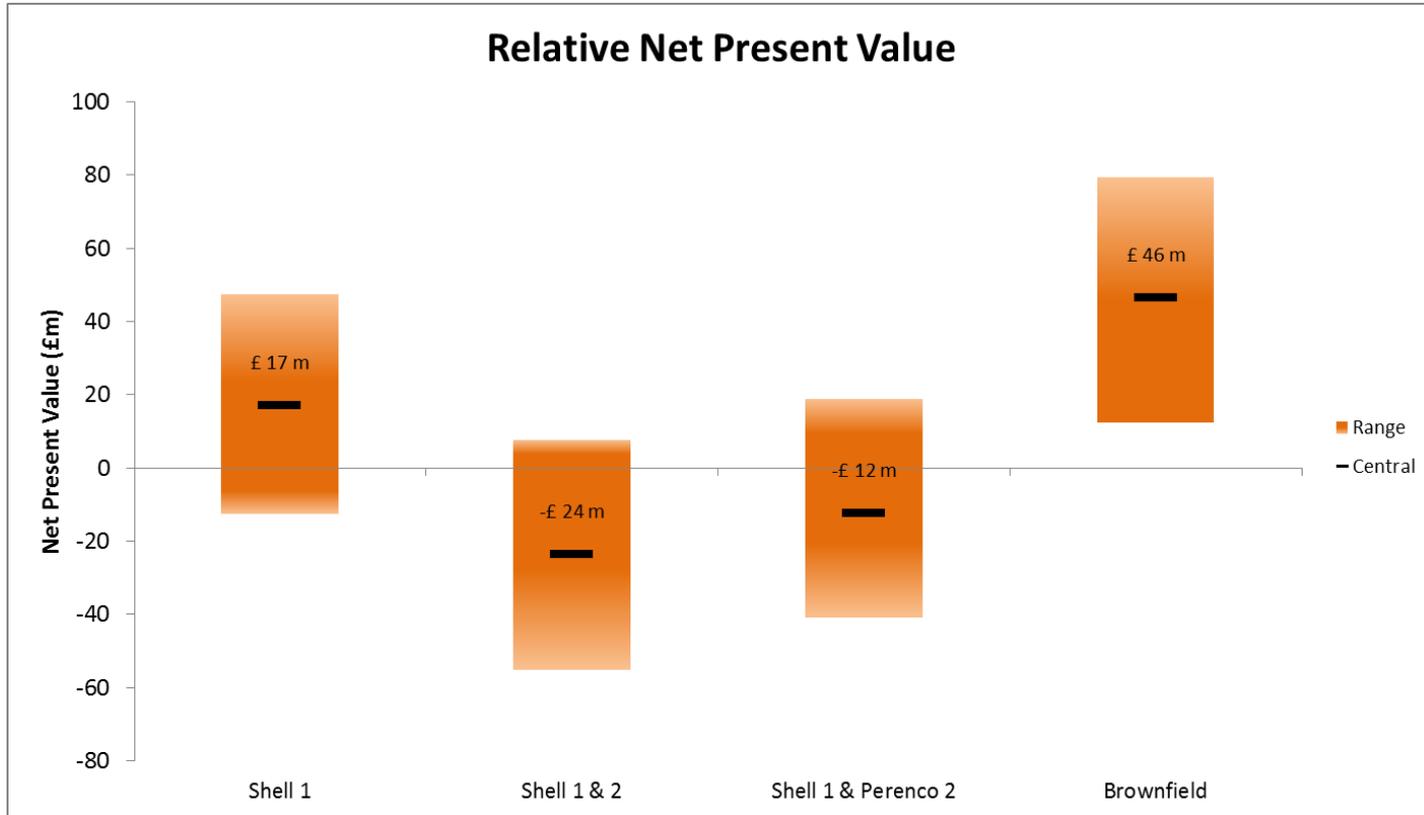
- Net Present Value (NPV) calculated for all main options to show the saving to the consumer.

Taking into account:



* Does not take into account future proofing, or full societal impacts

Relative NPV - Benefit to consumer



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Going Forward

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Going Forward

- In our July business plan we will propose that a new, purpose-built terminal is the favourable solution
- This will be built and operational within 5 years from RIIO T2 start
 - The payback period for a new terminal over asset health is 12 years (2033) from 2021.
- This option will:
 - Limit disruption to all stakeholders on site
 - Offer opportunities to expand if required
 - Ensure long term reliability and safety

Quick poll

Do you support our decision to progress with a new terminal?

Yes

Unsure

No

Please explain your answer

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Questions

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Thank you

