SPEE European Chapter – DSA Presentation

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History of RockRose Energy

RockRose is a North Sea oil and gas independent founded in 2015

- As majors retreat from the North Sea, RockRose aggregates their marginal assets under a single corporate entity.
- Previously publicly listed on the Main Market of the LSE since January 2016, acquired by Viaro Energy in September 2020 for 1,850p/share.
- Owns non-operating interests in >20 producing assets in the UK and NL North Sea.

Six years of strong growth through strategic acquisitions

- Built through a series of acquisitions, FY 2022 production ~26,500 boepd.
- Goal to grow production significantly, through a combination of M&A and development of our existing base of assets.
- Transformational farm-in agreement for license P2607 provided RockRose Energy with 60% equity and will become operator of a significant gas development in the Southern North Sea.

Deep operational and financial expertise

- Operations team is made up of the best people from each the acquisitions that built RRE. These include distinguished careers at major international oil & gas companies and direct experience of operatorship.

2015	RockRose founded
2016	Listed on the LSE Main Market
2017	Acquired assets from Egerton Energy Ventures, Sojitz Energy and Idemitsu
2018	Acquired assets from the Dyas group of companies
2019	Acquired Marathon Oil's UK assets, becoming an Operator
2020	RockRose Energy acquired by Viaro and taken private
2021	HaLO & SSE E&P acquired
2022	Acquired Spark Exploration & Farmed-in to License P2607.

Andy Gathercole

- 38 years industry experience
- Masters degree in chemical engineering
- 7 years North Sea operations training/early industry experience with British Gas and bp
- 29 years commercial experience, including bp, Nexen/CNOOC, and several medium/small Operators
  - 17 years UK commercial experience, including UK Commercial Manager positions
  - 12 years international experience, including residences in Kuwait and Budapest, and work on Europe/Russia, Central Asia, West Africa, the Middle East and Pakistan, and Australia
- Worked with UK/NL Decommissioning Security Agreement (DSA) issues over the last 14 years, including participating fully in the UK commercial work group which updated the model DSA agreement to post-tax c.10 years ago
- Also the recent OEUK commercial task force updating the DSA model agreement due to the unintended consequences of the recent spike in UK inflation

Disclaimer

- The opinions expressed in this presentation are those of the author
- While they reflect what is believed to be informed opinion, they are not represented as being the opinions of Viaro/RockRose, or the OEUK
- Readers are urged to obtain independent advice on any matter relating to the interpretation of Decommissioning Security Agreements, including the technical inputs to the security calculations for specific assets

Summary

- Annual decommissioning security calculations are performed to determine whether security needs to be posted, if so, how much is needed to ensure abandonment will be fully funded, and what form security needs to take for individual Co-Venturers
- The relevance for the European Chapter of the SPEE is the requirement for various technical inputs to the calculations, and the impact of posting security on investment capability, e.g. the ability to fund exploration and development, including infills on producing assets

Forecast Expenditure

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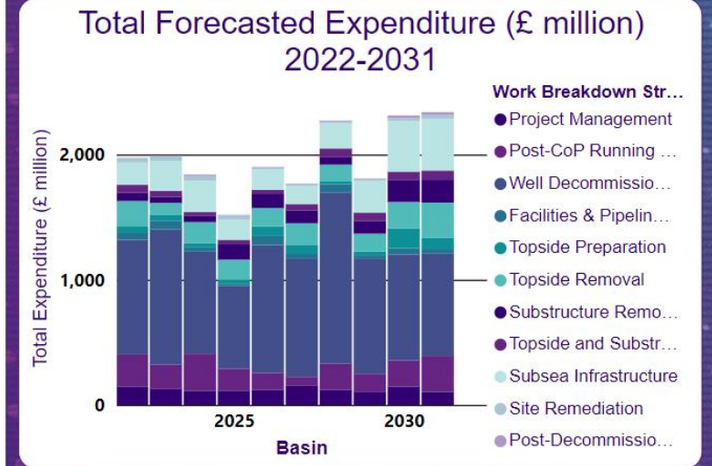
2022 – 2031

Work Breakdown Structure

Project Management	Facilities & Pipelines Permanent Isolation and Cleaning	Substructure Removal	Site Remediation
Post-CoP Running Costs	Topside Preparation	Topside and Substructure Onshore Disposal	Post-Decommissioning Monitoring
Well Decommissioning	Topside Removal	Subsea Infrastructure	



WBS Categories	2022	2023	2024	2025	2026	2027
Project Management	144	131	111	114	121	152
Post-CoP Running Costs	259	193	298	175	135	72
Well Decommissioning	917	1,079	816	663	1,021	941
Facilities & Pipelines Permanent Isolation and Cleaning	54	69	33	12	72	41
Topside Preparation	56	45	34	37	78	73
Topside Removal	199	96	169	159	146	172
Substructure Removal	66	50	49	121	111	103
Topside and Substructure Onshore Disposal	63	47	31	38	34	50
Subsea Infrastructure	178	242	250	161	167	145
Site Remediation	33	36	37	32	12	12
Post-Decommissioning Monitoring	4	3	12	6	5	7
Total	1,974	1,991	1,840	1,518	1,902	1,769

- 2022-2031:
  - c.2000 well abandonments (c.200 p.a.)
  - c.1.5 million te topsides and substructures removed (100kte-200kte p.a.)

DSA Development

- As the UK North Sea matured, new entrants were encouraged by the government, as large companies looked to emerging basins for large reserves and reduced their equity in mature fields, which often had big offshore structures to maintain – and decommission
- M&A activity surged, but was constrained by financial capability to assume decommissioning liabilities, and so Decommissioning Security Agreements (DSAs) evolved, and the industry body Oil & Gas UK (O&G UK, now Offshore Energies UK) developed a model DSA agreement, to ensure gross abandonment costs would be covered in the event of companies becoming unable to pay once production ceased, by accessing pre-abandonment free cash flow
- As smaller companies entered the UK, the tax relief on decommissioning became an important feature, leading to UK government tax relief guarantees (Decommissioning Relief Deeds, or DRDs), and the O&G UK model agreement was updated to ensure net abandonment costs would be covered, i.e. after tax relief was accounted for

➢ Annual decommissioning security calculations are performed to determine whether security needs to be posted, if so, how much is needed to ensure abandonment will be fully funded, and what form security needs to take for individual Co-Venturers

Technical Inputs

- Engineering
  - Profiles
    - A P50 basis is standard until near abandonment, when they move to a P90 basis
      - Proven (2P) reserves basis normally
        - Some DSAs include Probable, and even Possible
      - JV approval
        - Sometimes previous owners need to approve
  - Decommissioning Plan
    - Based on regulatory requirements, e.g. clearing the seabed in some cases, or cleaning/flooding pipelines, etc
    - Costed on a P50 basis + contingency until near abandonment, when the plan moves to a P90 + smaller contingency basis
  - Expert review in case of dispute or material change from previous year (>20% value trigger)

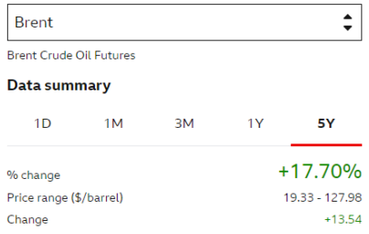
Risk Mitigation (non Engineering inputs)

- Risk Factor
  - Ranges from 1.0 – 1.5 until near abandonment, when it normally reduces to between 1.0 and 1.2
- Qualifying Surety
  - The financial rating of the financial institution providing the security, or the company providing the guarantee
    - If not met by a company this triggers the requirement to post on demand payment instruments (which cost money), or in the case of lower rated companies the posting of cash into a Trust
    - The DSA lays out how money in a Trust (including accrued interest) is accessed to cover decommissioning invoices
- Discount Factor
  - Based on the guaranteed returns available in the money markets, i.e. Gilt rates, for Government bonds maturing around the date of the forecast Cessation of Production (CoP)

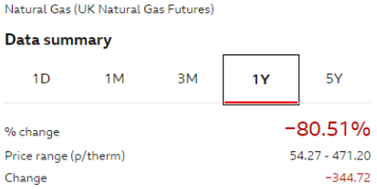
Commercial Uncertainties

- Commodity prices
  - Oil – often a WoodMacKenzie forecast is used, but sometimes a spot price – which can be very volatile – see right
  - Gas also (if not determined by a market independent Gas Sales Agreement)
- Tariff income
  - Based on P50 profiles for signed agreements
- Exchange Rates
  - Often a spot price from the Financial Times - $/£ FX can be influential if oil revenues dominate income
- Inflation
  - Historically a 3 year average was used – see later for recent issues as inflation surged

Oil

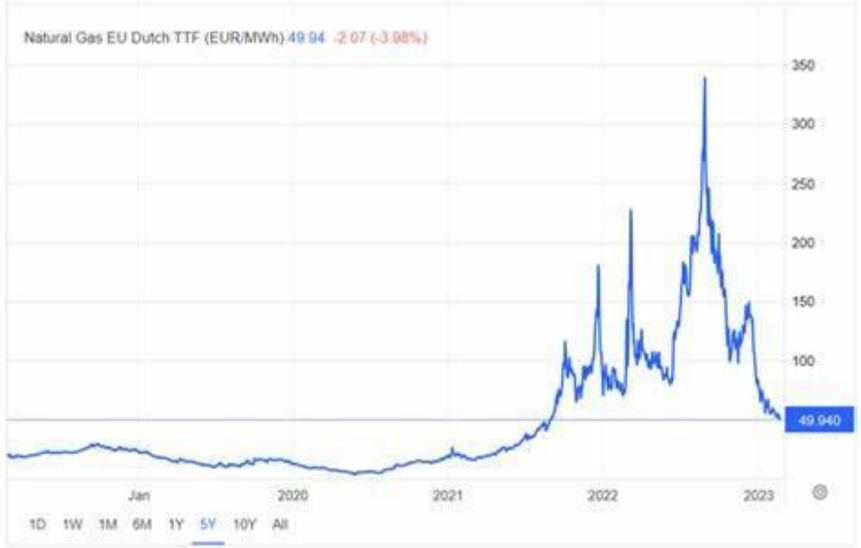


Natural gas



UK/Netherlands Regulatory Issues

- UK
  - Concerns regarding over-securitisation
    - That it stifles investment, by requiring some companies to put unreasonable levels of cash into Trust
    - Also that it stresses the bond market, which has shrunk due to ESG and shareholder pressure, and may become saturated, meaning that a company may have to sterilise cash if not enough bonds are available to meet the posting requirement
- NL
  - Concerns regarding under-securitization
    - Gas price spike in Europe triggered zero postings
    - ➢ Regulator mandated a new reference price
    - ➢ Security provision was then triggered

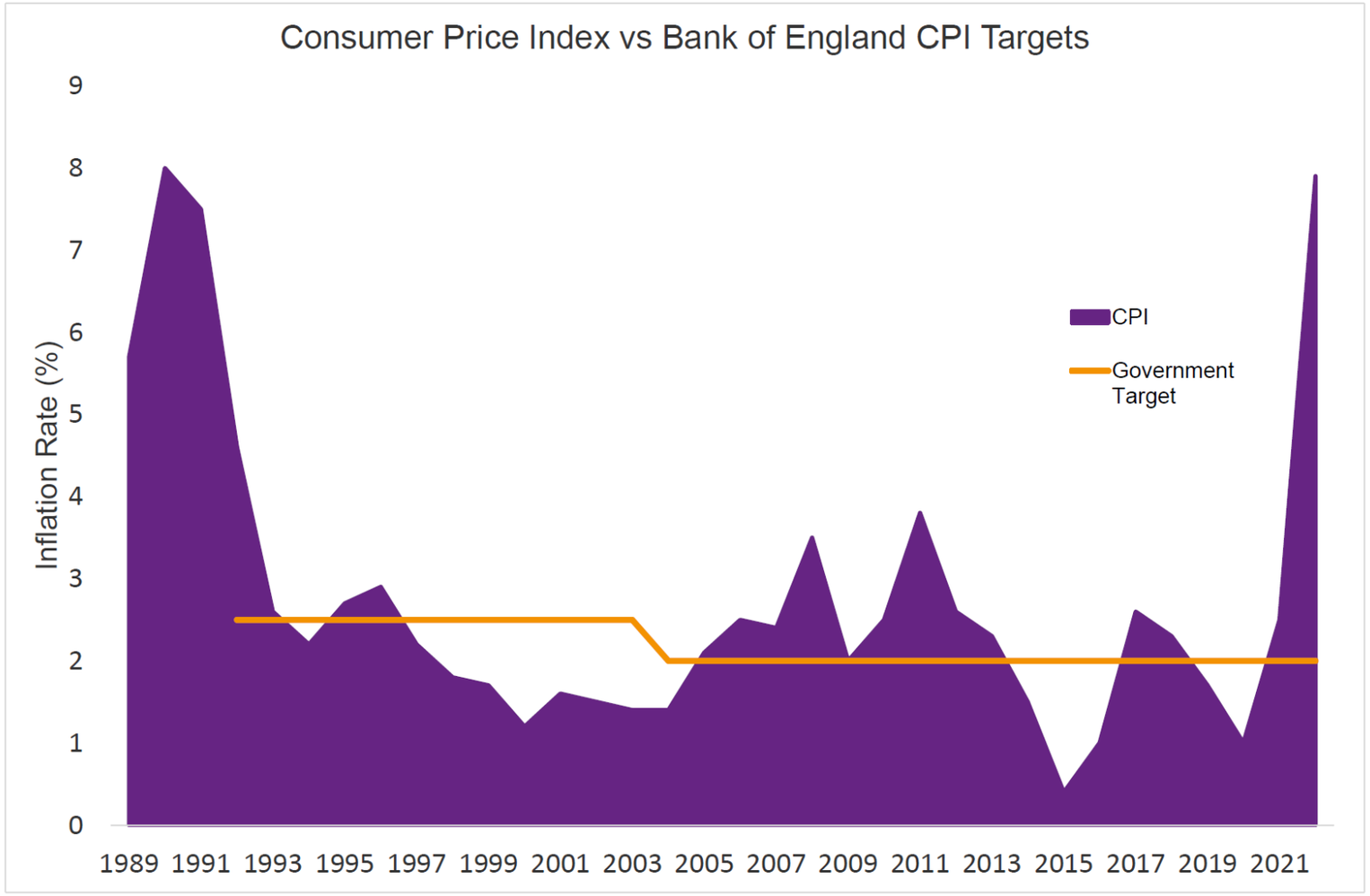


UK Security and Tax Relief Guarantee

- UK Security
  - Default: Cash in Trust (usually Law Debenture)
  - If company rating high enough a Parent Company Guarantee (PCG) can be provided instead
    - Lowest cost/no cash tied up
  - If company rating sufficient then a bank Letter of Credit (LoC) can be posted, costing a few % of the cash requirement
  - Some smaller companies can provide bonds instead, usually requiring a significant % of cash backing, as well as the cost of the bonds

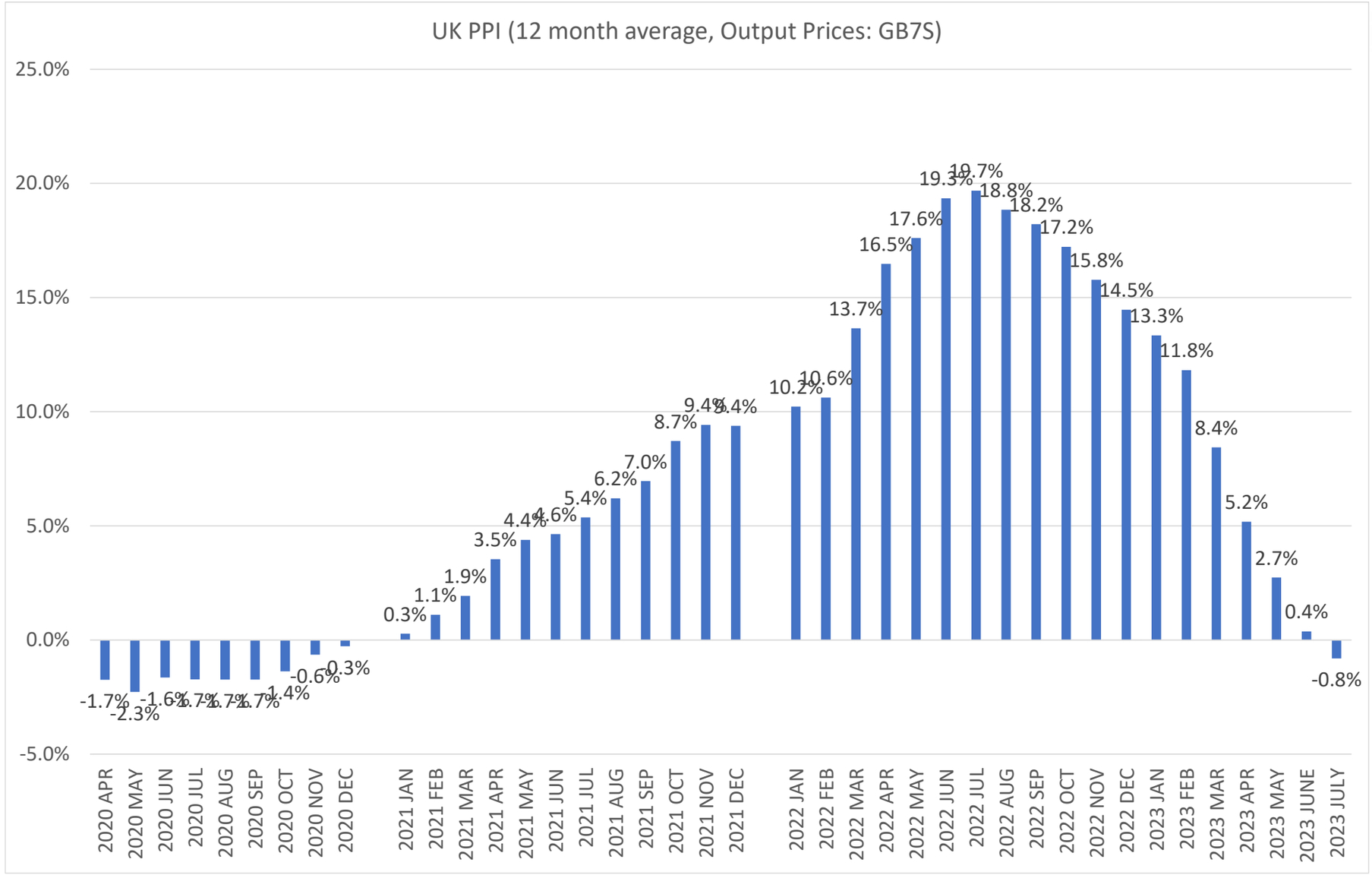
- UK Tax Relief
  - 50% tax relief available, i.e. c.$1bn p.a. 2022-2031
  - Introduced by the government to reduce uncertainty and encourage M&A/new entrants (and hence more investment in the UKCS)
  - Provided via Decommissioning Relief Deeds (DRDs), enabling post tax security to be posted

Inflation in UK over last 20+ years



- Indication of inflation environment during period of development of UK DSAs
  - CPI in line with Government target

UK Inflation Over last 3+ years

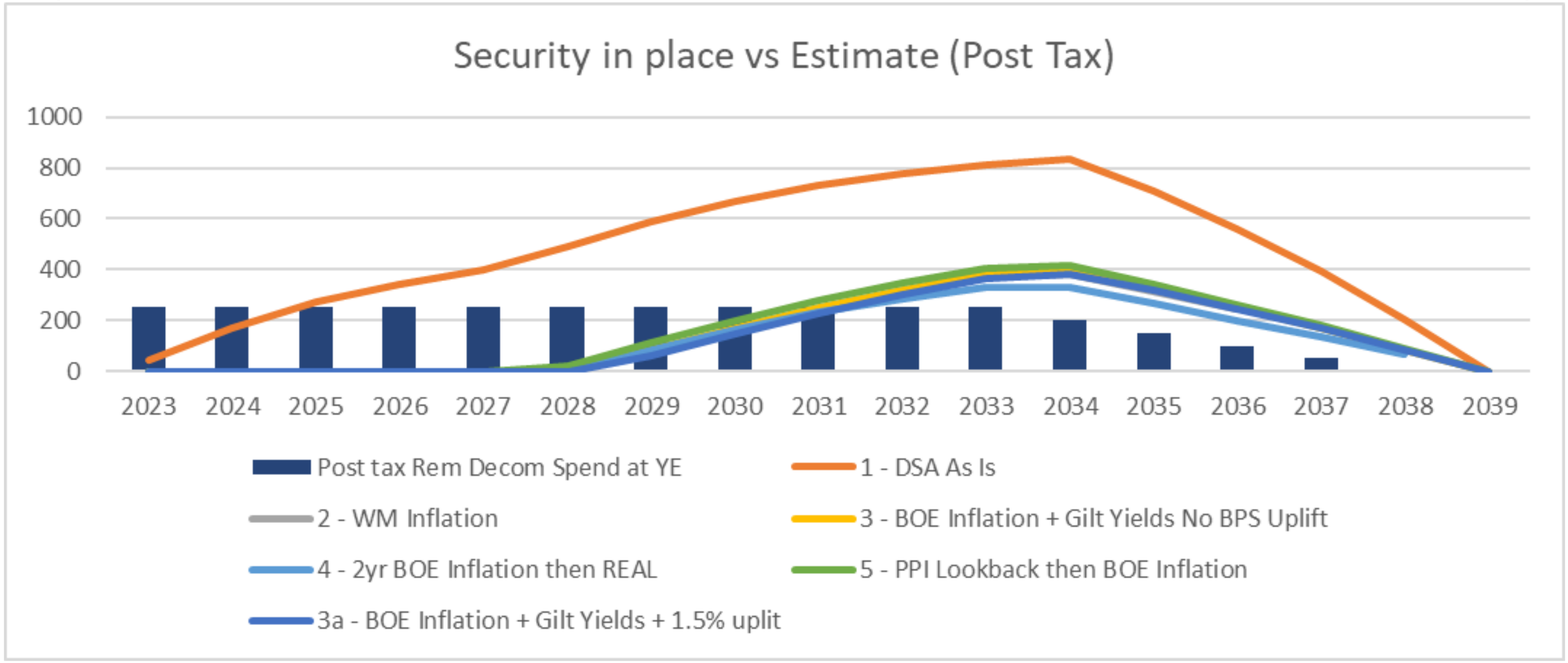


- Recent inflation surge way above government/Bank of England inflation target of 2%

UK Inflation Surge Impact

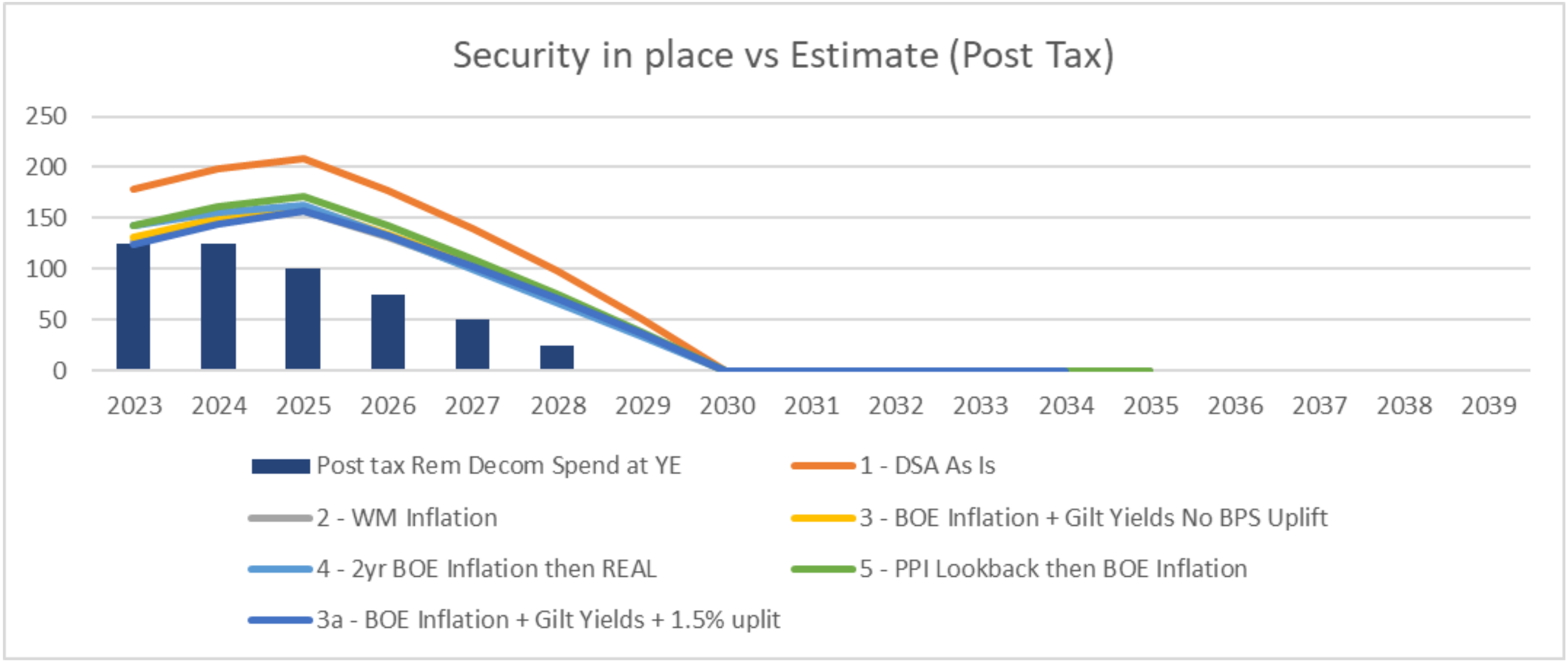
- 2022
  - Rising UK inflation while UK gilt yields low triggered very high levels of security in some DSAs
    - 3 year average historic inflation applied to oil price, extending field life and deferring decommissioning significantly, especially wells (NSTA require P&A within 5 years of CoP, so subsea well abandonment scheduled later than facilities)
    - Abandonment cost inflation over longer period lead to very high forecast decommissioning costs, and low gilt yields meant discounting was minimal
  - OEUK facilitated industry study on inflation impact, due NSTA concerns re over securitisation/cash sterilization
    - April 2023 recommendations: Forward looking inflation and gilt yields to be considered by JVs for existing DSAs, if not very late life, and will be incorporated in model DSA
    - ➢ Take up in UKCS mixed, as over-securitisation preferred by former owners and some Operators, despite NSTA concerns

Inflation: Historic vs Forecast impact – Mid Life Asset



DSA – Potential Solutions – Screening – Mid Life (20mbd field, £500m Abex)

Inflation: Historic v Forecast impact – Late Life Asset



DSA – Potential Solutions – Screening – Late Life (5mbd field, £250m Abex)

Conclusions

- Annual decommissioning security calculations depend critically on approved engineering plan inputs, including applicable reserves, relevant profiles, and forecast abandonment costs/contingency levels
- Security calculations determine whether security needs to be posted, and, if required, how much is needed to ensure abandonment will be fully funded, and what form security needs to take for individual Co-Venturers
- The security postings can impact JV investment capability, e.g. the ability to fund exploration and development, including infills on producing assets, especially where small Co-Venturers have to put cash into a trust

Final Questions