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A continued high attention to cost is required to stay competitive

Break-even prices on the NCS are currently competitive compared to other oil provinces (Figure 32). As Figure 33 indicates, this is mainly due to low operational costs, which again is caused by a cost-efficient infrastructure well suited for development of new resources in the fields or near-field tied back to hubs.

Although exploration costs (Expex) and capital costs (Capex) for new projects have come down considerably since 2014, Figure 33 clearly shows that Expex and Capex on the NCS are relatively high compared to the competition.

Figure 32. Break-even prices for oil fields sanctioned since 2018 (Rystad Energy, 2021)

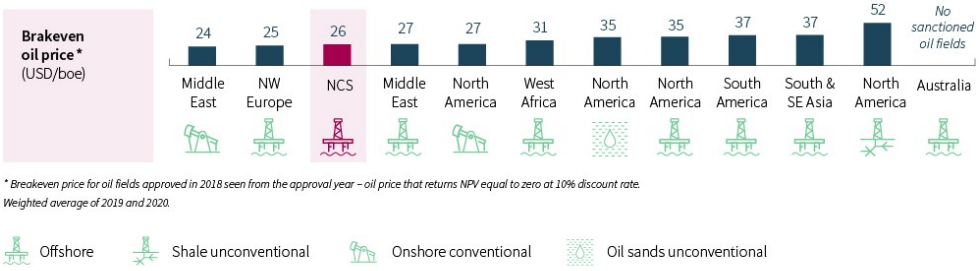
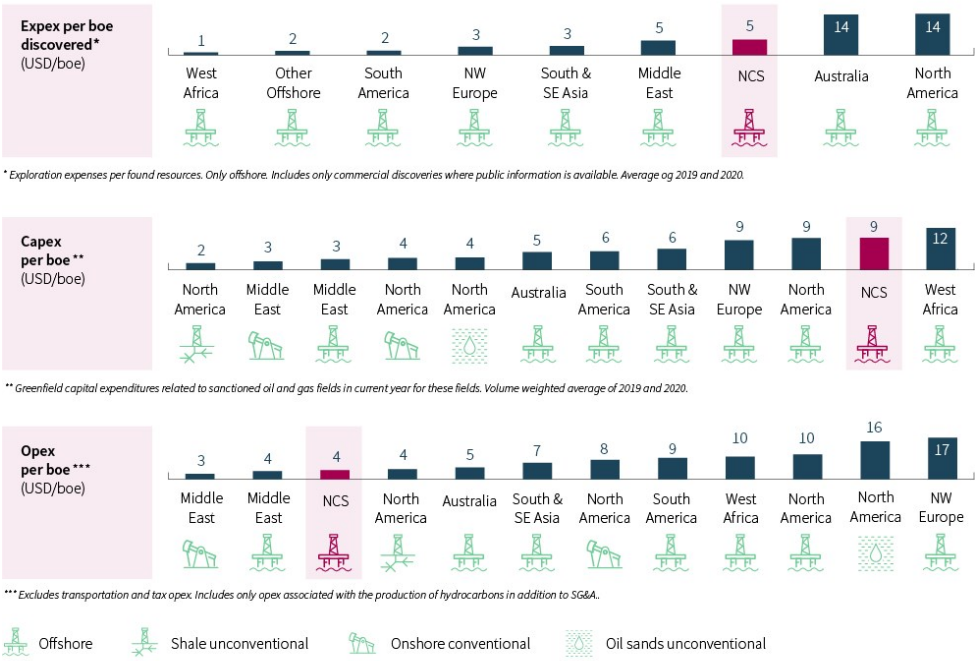
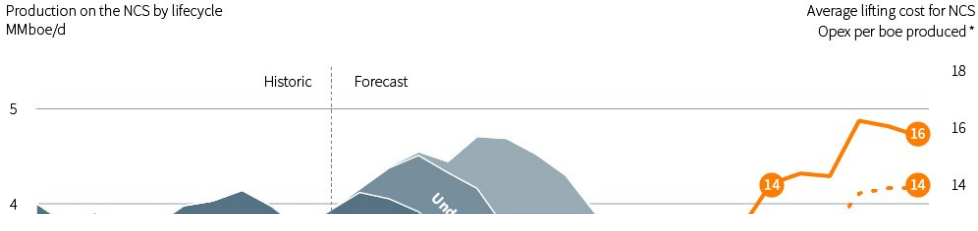


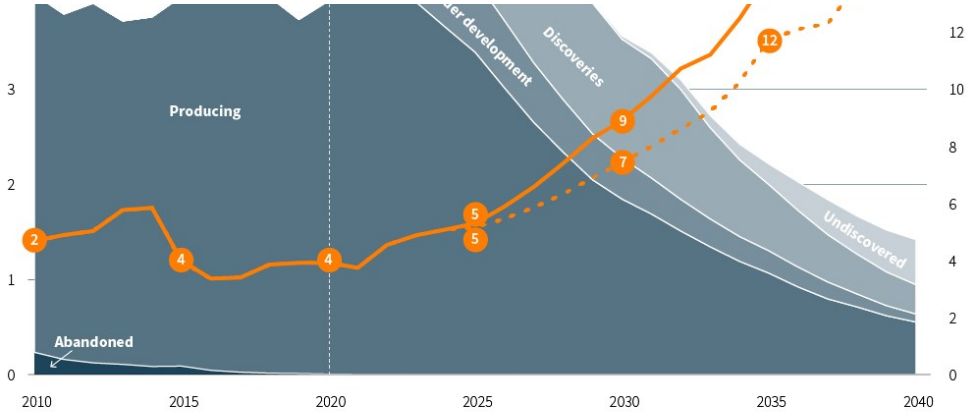
Figure 33. Expex, capex and opex on the NCS (Rystad Energy, 2021)



To further underline the generic cost challenge, the currently favorable Opex level on the NCS contributing to the low break-even price, cannot be taken for granted. Operational costs remain largely at the same absolute level for an installation throughout its lifetime, and as the production from a field declines, the average lifting costs per barrel increase. Figure 34 illustrates this on an aggregated level for the NCS.

Figure 34. Average lifting costs as the NCS matures (Rystad Energy, 2021)





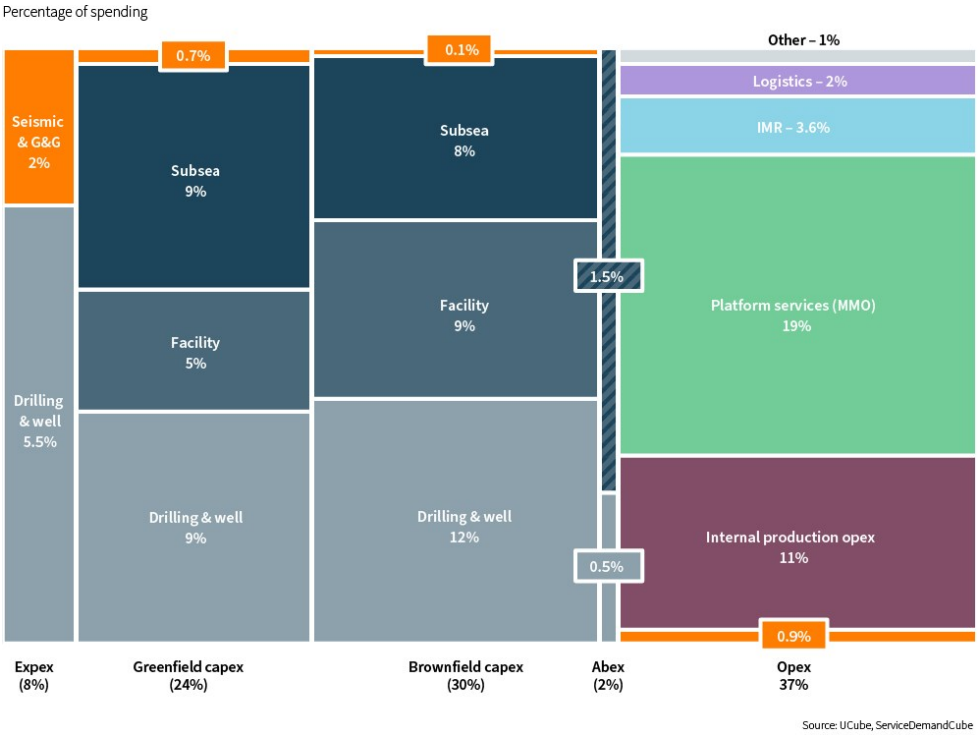
*Production opex only. SG&A and transportation tariffs not included; **only from opened areas

Source: Rystad Energy UCube

As Figure 35 illustrates, we expect four main cost areas over the next two decades:

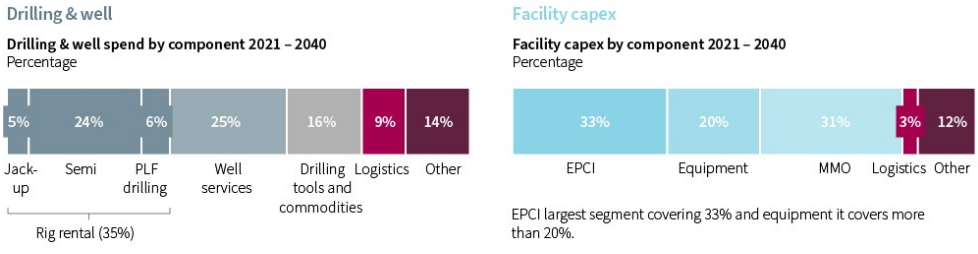
- Drilling and well (28%)
- Facility capex (14%)
- Platform service and maintenance (19%)
- Subsea capex (17%)

Figure 35. Expected main cost areas for the NCS year 2021–2040 (Rystad Energy, 2021)



A deeper dive into the expected four main cost areas is shown in Figure 36.

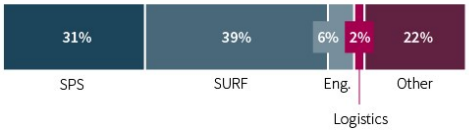
Figure 36. Four main cost areas for the NCS 2021-2040 broken down into cost elements (Rystad Energy, 2021)



Three large associated buckets with well service, drilling tools and commodities and logistics. These are also highly time dependent.

Subsea capex

Subsea capex by component 2021 – 2040
Percentage

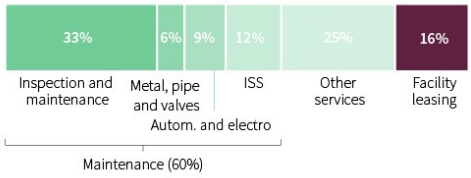


Traditional contract scopes covers 70% of subsea capex. SURF most important as it includes installation.

SPS system typically just below 1/3 of the project cost.

Platform services

Platform services by component 2021 – 2040
Percentage



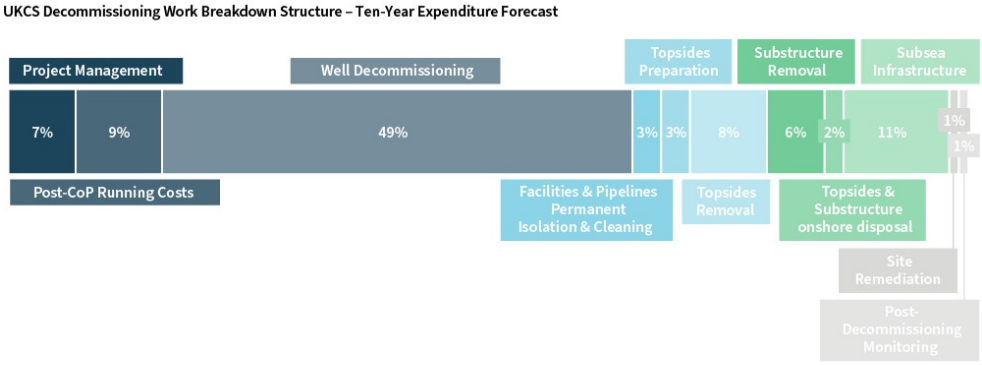
The majority of platform services are labor intensive except for facility leasing (leased FPSOs), which makes up 12% of platform services on the NCS.

Maintenance accounts for 50% of the spend, together with MMO capex, this bucket is substantial.

Source: Rystad Energy UCube; ServiceDemandCube

De-commissioning costs is a growing concern on the NCS. Many fields approach the end-of-life, and wells will have to be plugged and facilities removed. UK numbers suggest that plugging and abandonment of wells (P&A) contribute with 49% of de-commissioning costs, whereas removal of facilities, site remediation and monitoring combined contribute with around 34% of the costs.

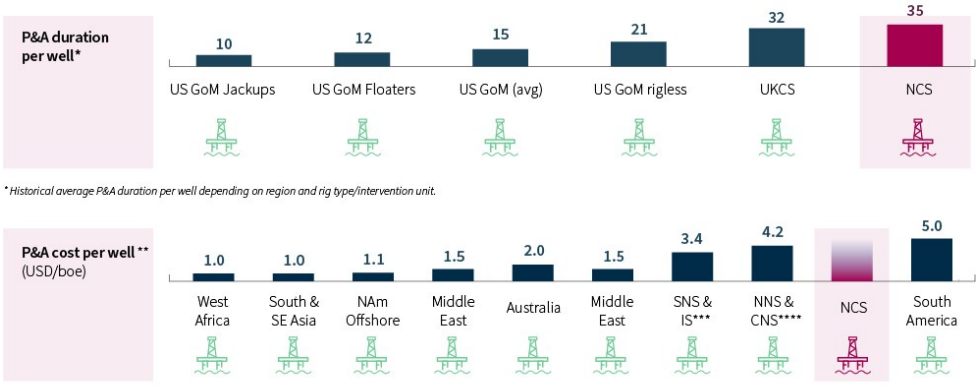
Figure 37. Break-down of expected de-commissioning costs in the UK over the next decade
(Rystad Energy, 2021, based on numbers from UK Oil and Gas)



Source: UK Oil & Gas Decommissioning Insight 2020

More than 3000 wells are going to be plugged and abandoned safely on the NCS over the next decades. A typical P&A operation on the NCS takes 35 days with the use of a mobile drilling unit. This is longer than P&A operations in other offshore petroleum provinces and it drives costs. More efficient P&A methods in addition to methods that would allow lighter vessels to be used for P&A, would have the potential to reduce costs considerably.

Figure 38 P&A durations and costs on the NCS compared with other basins (Rystad Energy, 2021)



** Historical average P&A duration per well depending on region and rig type/intervention unit.*

*** Estimated P&A cost per well for offshore regions based on expected activity from 2019 – 2023. *** Southern North Sea and Irish Sea (UKCS). **** Northern & Central North Sea (UKCS)*

Utilizing and extending the life of existing infrastructure contributes to cost-efficient development of new fields in the vicinity. This has a positive effect on NPV as some de-commissioning costs are moved into the future. An alternative use of facilities when the field approaches late-life or even after production has shut down, could have the same effects.

The cost challenge on the NCS remains high in all phases: exploration, field development, production and operations, and de-commissioning including P&A. Bringing costs down is an important driver behind the development and implementation of new technology for all these phases, as the discussion of OG21's technology priorities in Section 4 shows.

← Forrige side

Neste side →

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