Accela Research

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M&A and the oil and gas endgame

Preparing for oil and gas decline

It is time to talk about endgame strategies for oil and gas producers. A structural change to customer demand will reshape oil and gas products in the next decades. Between 2023-30 oil demand could decline between -9 and -24% (IEA APS, IEA NZE respectively) and gas could decline between -8% and -19% (APS, NZE respectively). Even under the most conservative policy assumptions, oil could decline -0.2%, and gas grows just ~3% (IEA STEPS). Demand for fossil fuels are expected to reduce as low-carbon alternatives ramp up with: ongoing initiatives to electrify road transport (40% of oil demand today), increase in efficiency gains, and expansion of biofuels to address sectors such as road, aviation, and shipping. Oil and gas companies will need to make strategic choices on where they can derive long-term value.

2.5x

Number of lowcarbon & power acquisitions compared with fossil fuels We see three strategic moves for forward-thinking oil and gas companies in this context: 1) Exit the industry early before demand declines, minimising stranded assets and liabilities. 2) Diversification, following current customer demand trends to develop low-carbon energy, as a hedge to oil and gas revenue. 3) Efficiency, expand market share (consolidate), lower cost and carbon, focus on maximising cash and distributions. Producers can use a combination of these strategies. When we reviewed European, US, and Australian oil and gas companies' transactions over the last 3 years we found the low-carbon & power acquisitions outpacing fossil fuels by 2.5x, indicating a reshaping of portfolios to low-carbon. However, if you look at this on a value basis for large transactions (ex-Pioneer, Hess, BHP assets) the value of fossil fuel is marginally higher than low-carbon.

Key findings and engagement focus

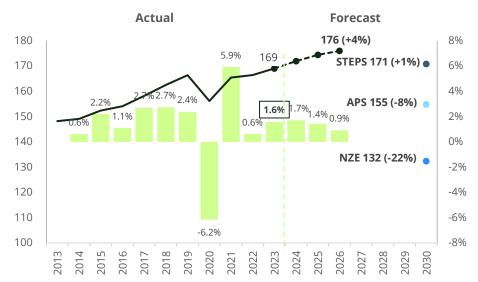
Mergers & acquisitions (M&A) can be an important tool for climate and transition and most companies are staking out their position in the endgame. In assessing transactions, we found: 1) European majors' transactions indicate they are likely pursuing a **Diversification strategy**, with both acquisition of low-carbon assets and divestment of fossil fuels. For Shell, TotalEnergies, Eni, BP and Equinor, the count of low-carbon acquisitions was 2-4x greater than fossil fuels, with low-carbon acquisitions focused on biogas and renewable generation. 2) US majors Chevron and Exxon appear to be focusing on Efficiency. Announced transactions in 2023 with Exxon/Pioneer and Chevron/Hess were the largest fossil fuel purchases (~\$60-65bn each). Contrary to a public perception that this signals a confidence in the future of fossil fuels, both are effectively positioning as lowest cost producers in preparation for a world of declining oil demand. Notably, Exxon's fossil fuel divestment (24) transactions exceeded TotalEnergies (19) and Shell (20). 3) Australian oil and gas companies Woodside and Santos are outliers. Current M&A deals do not appear to aim for efficiency, diversification, or an exit. They seem to be focused on size and accessing larger balance sheets to fund growth. Investors engaging with oil and gas companies can use M&A transactions as a tool to assess how a company is positioning itself for the endgame. In the case of Australian majors, transactions indicate lack of preparation for the endgame.

Oil and gas demand outlooks

Over the next decade, oil and gas companies will need to adapt to declining demand for their core products, as the energy system continues to electrify, and low-carbon alternatives become available. These shifts will force them to strategically reposition to create long-term value in a changing competitive landscape.

In 2023 oil and gas demand increased 1.6%^{1,2}, and according to the IEA's most recent forecast it is expected to grow 1.7% in 2024. This compares with European majors' growth in oil and gas production of 0.9% in 2023, and guidance of 0.5% growth in 2024. Between 2023 to 2026 the IEA is forecasting 4.1% growth in oil and gas. This compares with growth under the IEA longer-term scenarios (published Oct 23) that imply growth between 2023-30 of 1% (IEA STEPS), decline of 8% (IEA APS) and decline of 22% (IEA NZE).

Chart: Oil and gas demand 2013-30 (LHS, mb/d, RHS, annual growth)

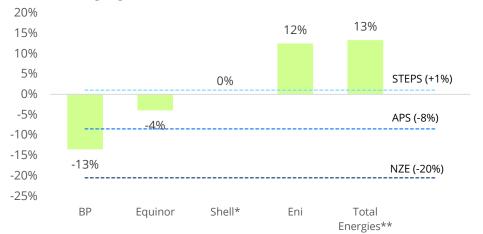


Growth in annual oil and gas demand has been positive since 2013, ex COVID in 2020.

2024 growth is expected to be higher than 2023 at 1.7%, before almost halving by 2026.

Source: Accela Research estimates, IEA | Bracketed values reflect growth between FY23-FY30

Chart: Oil and gas growth 2023-30 (%)



Source: Accela Research estimates, Company data, IEA WEO 2023 | * Shell's oil production only, flat at 1.4 Mb/d. No guidance for gas, LNG to increase up to 36%, could imply up to 8% growth for oil and gas. This would bring European majors up to 3.2% growth | **Total Energies production is expected to be flat between FY28-30|

European majors are guiding on average to ~1.3% increase in oil and gas production (2023-30), above IEA STEPS (+1%).

BP and Equinor are reducing production, while Eni and TotalEnergies are growing production 12% and 13% respectively.

Santos is guiding up to 53% growth into the 2040's (on FY23), and Woodside is expected to grow oil and gas to 2027.

² IEA Gas Market Report Q1-2024

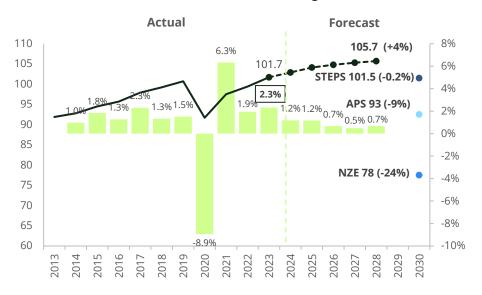


¹ <u>IEA Oil Market Report – January 2023</u>

Oil

Oil demand increased 2.3% to 101.7mb/d in 2023 and the IEA has forecast growth to half in 2024 to 1.2% (to 1.2m/d) 1. In the last three years (2021-23) total oil demand has been trending upwards as countries recover from COVID impacts and in 2023, growth was particularly significant in China's petrochemical sector. Without this growth in petrochemicals, global oil demand in 2023 would be lower than 2019 (100.7mb/d)3. The IEA forecasts oil demand to rise by 4% between 2023-2028 (~106 mb/d) driven by further growth in China's petrochemical sector and global demand for aviation1.

Chart: Oil demand 2013-30 (LHS, mb/d, RHS, annual growth)



To 2028, IEA projects a 4% increase in oil demand vs. 2023.

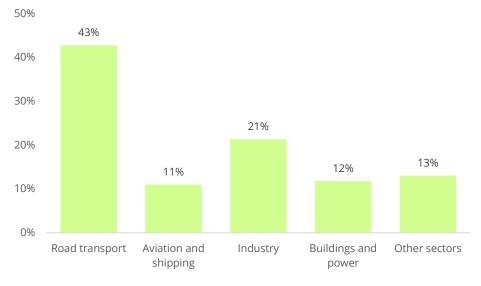
To 2030, STEPS see a slight (-0.2%) decline in demand on 2023 levels vs -9% (APS) and -24% (NZE).

Source: Accela Research estimates, IEA | Bracketed values reflect growth between FY23-FY30

Demand drivers and outlook

In 2022 oil demand was driven by transport 54% (road transport 43%, aviation and shipping 11%), industry 21% (15% petrochemicals) and buildings and power 12%4.

Chart: Oil demand by sector 2022 (% contribution)



Road transport accounted for 43% of demand for oil in 2022, with some initial signs of decline from 2021. Buildings and power account for 12% of demand.

Petrochemicals contributes 15% to oil demand today along with aviation & shipping 11%, is expected to grow in the medium term.

Source: Accela Research estimates, IEA WEO 2023.

⁴ IEA (2023) World Energy Outlook 2023.

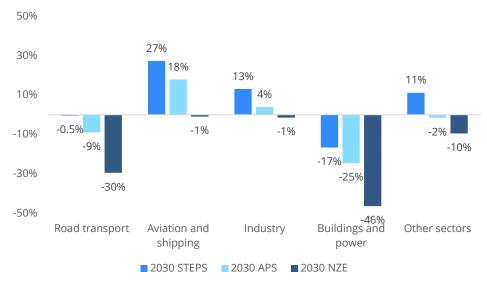


³ IEA (2023), Commentary: China's petrochemical surge is driving global oil demand growth

Between 2021 and 2022, oil demand from transport rose 2%, with the aviation and shipping sector recording the highest growth in oil demand of 7%. While overall demand for oil from transport increased, there are signs that demand from road transport may have declined from 42.5 mboe/d⁵ in 2021 to 41.3 mboe/d in 2022. Road transport is expected to be the largest driver of declining oil demand in the next six years, even under IEA STEPS demand is expected to decline 0.5% by 2030 and could decline up to 30% under IEA NZE.

Oil demand from passenger cars is expected to peak in 2025, and accounts for 92% and 64% of total oil demand reduction under IEA APS and IEA NZE by 2030⁴. Changes in oil use for aviation and shipping and industrial sectors will be harder to shift with both sectors collectively accounting for only 11% and 20% of the reductions seen to 2050 in the APS and NZE scenario, respectively.

Chart: Change in oil demand by sector under IEA scenarios 2022-30 (%)



Between FY22- 2030, all IEA scenarios project a reduction in road transport and buildings/power demand.

Growth is expected in aviation and shipping, and industry in IEA STEPS and APS scenarios.

Source: Accela Research estimates, IEA WEO 2023

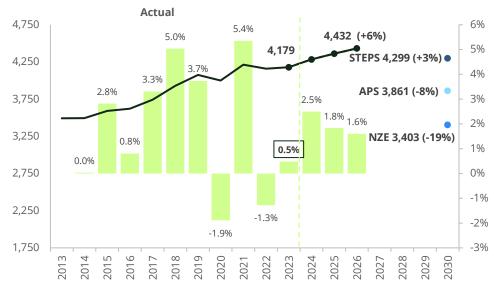
⁵ BNEF (2020), Oil Demand From Road Transport: Covid-19 and Beyond /



Gas

In 2023, gas demand grew ~ 0.5% to ~4,180 bcm². Demand is expected grow a further 2.5% in 2024 with this growth underpinned by increased economic activity in Asia and increased gas use for power and industrial sectors. Like oil, gas demand is forecasted to grow an average of 1.6% per year to 2026, but down from average 2.5% between 2017-20216. The IEA expects overall growth to 2030 under its STEPS scenario (+3% rel. 2023, 120bcm), but a decline in gas use across IEA APS (-8%) and IEA NZE (-19%), with all IE scenarios reaching peak gas demand between 2030-50.

Chart: Gas demand 2013-30 (LHS, mb/d, RHS, annual growth)



Near term IEA projections indicate 6% increase in gas demand to 2026 (vs. 2023).

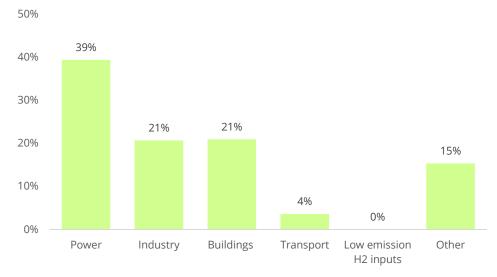
This compares with mediumterm forecasts (2023-30) of +3% in IEA STEPS and reductions in APS (-8%) and NZE (-19%).

Source: Accela Research estimates, IEA WEO 2023

Demand drivers and outlook

In 2022 demand for gas was primarily for power (39%), industry (21%) and the building sectors (21%), with key demand regions including the US (22%), Europe (13%), Middle East (14%) and Russia (13%)⁴. Other gas demand (15%) is primarily for use of gas as a feedstock (i.e. fertiliser). Between 2021 and 2022, gas demand dropped 1.3% (~55bcm). This reduction was driven by the Ukraine invasion which stimulated a shift away from gas due to high prices and reduced supply.

Chart: Gas demand by sector 2022 (% contribution)



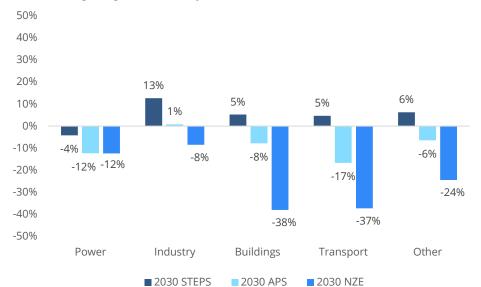
The power sector is the largest driver of gas demand at 39%, followed by industry 21% and buildings 21%.

Source: Accela Research estimates, IEA WEO 2023

⁶ IEA 2023, Medium-Term Gas Report 2023



Chart: Change in gas demand by sector under IEA scenarios 2022-30 (%)



Between 2022-30, the power sector is the key driver of reduction across all scenarios (-4% STEPS, -12% APS and NZE).

The building sector becomes a large contributor to demand reduction under APS (-8%) and NZE (-38%), the later driven by policy changes to ban gas for heating.

Source: Accela Research estimates, IEA WEO 2023 | Demand for low emission H2 has been excluded. Growth projected in all scenarios (>100%), reaching 0.2% (STEPS), 0.9%(APS), and 2.1%(NZE) of gas demand in 2030.

Under IEA's STEPS power is the only sector expected to contribute to demand reductions prior to 2030 (-4%).

Under APS, demand reductions come from power (-12%), buildings (-8%) and the transport sector (-17%), with a small 1% growth in industry.

Under IEA NZE buildings contribute much more to decarbonisation with demand for gas decreasing 38% due to bans in gas for heating. In mature markets gas consumption peaked in 2021 (e.g. Europe, North America, Asia Pacific). With peak gas use met in these markets (~46% global consumption)⁶ the future of gas demand will be dependent on growth and low emission policies set in growing demand regions like Asia, Middle East and Africa.



M&A trends: 2021-2023

Mergers and acquisitions are one tool oil and gas majors can use to shift portfolios towards low-carbon. It creates access to low-carbon opportunities which companies may not have the expertise to develop inhouse, and the ability to reduce exposure to higher cost oil and gas assets. While our view is that divestments are not an emission reduction strategy, like other forms of mergers and acquisition they are a way to almost immediately reshape a company.

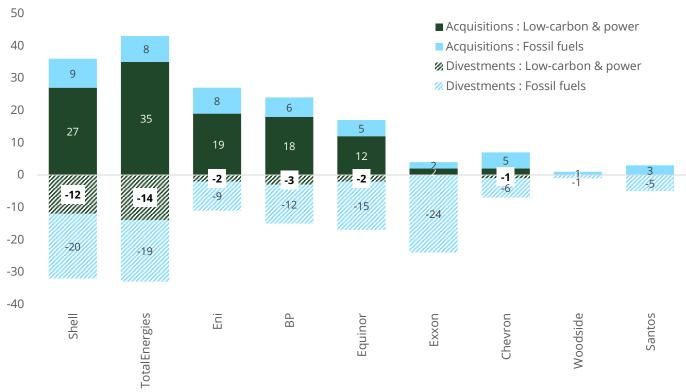
We assessed the number of mergers and acquisitions transactions by European, US, and Australian oil and gas majors between 2021-2023, in the category of fossil fuels (oil and gas) or, low-carbon & power, the later defined as carbon capture and storage, power (including gas), hydrogen, storage, renewables, and EV charging. We have excluded convenience and mobility. We find that that between 2021-2023, there were 307 acquisitions and divestments across these categories, with the number of low-carbon & power acquisitions outpacing fossil fuels 2.5x, while fossil fuel divestments exceeded lowcarbon 3.3x. We did not look at alignment of transactions with a particular decarbonisation pathway or 1.5C, a potential area of future research.

How do we tell if transactions are enabling transition? We are looking for examples of mergers and acquisitions that could assist a company in preparing for an environment of declining demand for oil and/or gas. We see three distinct strategic options to prepare for that scenario:

- 1. Exit the industry early before demand declines, minimising stranded assets and liabilities.
- 2. Diversification, following current customer demand trends to develop low-carbon energy, as a hedge to oil and gas
- **3. Efficiency**, expand market share (consolidate), lower cost and carbon, focus on maximising cash and distributions. Producers can use a combination of these strategies.

Producers can use a combination of these strategies. We mapped transactions by company (chart below), with number of acquisitions above the horizontal axis and divestment below the axis. We found some clear regional trends.

Chart: Oil and gas mergers and acquisitions 2021-2023 (count)



Source: Accela Research estimates, S&P Global Market Intelligence



European majors

For European majors, we see acquisitions and divestment in both low-carbon and oil and gas, in line with announced Diversification strategies in corporate transition plans. Of the European majors, TotalEnergies and Shell have made the highest number of low-carbon acquisitions (35, 27) and the highest number of fossil fuel divestments (19, 20).

The European majors' largest acquisitions in low-carbon & power were BP's acquisition of Archaea Energy (2022, \$4.8bn renewable nature gas, RNG) and Shell's acquisition of Nature Energy (2022, \$2bn, RNG) both benefiting the potential sale of generated renewable fuel credits (e.g., US Renewable Fuel Standard program (~US\$0.90/gallon)⁷, Danish Guarantee of Origin for renewable gas8).

Low-carbon divestments were mostly related to sell downs of renewable assets, larger transactions included TotalEnergies sale of its Seagreen wind assets (2023, \$661m), and Eni sale of a 9% stake in Plenitude (2023, \$766m).

Oil divestments included Shell's divestment of Permian assets (2021, \$9.5bn), TotalEnergies divestment of its oil sands business in Canada (\$1.1bn), Shell's oil divestments in California (2022, \$2bn) and Equinor's divestment of its interest in the Bakken Field (\$0.9bn). Major divestment of gas assets included BP's divestment of assets in Oman (2021, \$2.6bn), Shell's Sakhalin-2 project, Shell's Abadi gas project in Indonesia, Equinor's sale of its stake in the Corrib project (Ireland), Eni's two international gas pipelines (Italy to Algeria).

Fossil fuel acquisitions, were marginally more weighted to gas, including BP stake in Israel exploration company NewMed (2023, ~\$2bn), and Eni Neptune Energy (2023, \$4.9bn).

US majors

For Exxon and Chevon, the recently announced acquisition of Pioneer and Hess dwarf any prior transactions in size at ~\$60-\$65bn each. Contrary to the view that this signals a confidence in future oil demand, we see both transactions as an attempt to increase scale and lower production costs. Both companies are preparing to be the lowest cost, more efficient producers in a world of lower oil demand. In addition to its acquisition of Pioneer, Exxon has focused on divestment of oil and gas assets (24), with the number of divestments exceeding both TotalEnergies and Shell.

Chevron's fossil fuel divestments were of a lower count (6) and included divestment of its Indonesian assets to Eni (2023). On low-carbon, Exxon and Chevron have made large acquisitions, Exxon with Denbury (2023, \$4.9bn carbon pipeline and storage) likely triggered by tax credits under the Inflation Reduction Act (up to ~\$85/tCO2 permanently captured)9 and Chevron with Renewable Energy Group (2022, \$2.9bn, renewable fuels).

Australian oil and gas

Woodside and Santos do not have a clear response to transition in their mergers and acquisitions. Even when we consider the prior merger discussions between Woodside and Santos that ended early in February this year, we see a difference to the consolidation occurring in the US. Compared with the US Majors, Woodside and Santos have no transactions in lowcarbon and power, little divestment of fossil fuels outside of project sell-downs.

For these companies the rationale for acquisitions and divestments of fossil fuel assets are not driven by an endgame strategy. In contrast to global peers, rather than acquiring to create a more efficient business in the face of lower oil or gas demand the two Australian companies appear to be focused on size, undertaking acquisitions that provide them with access to larger balance sheets, to ensure they can continue to fund growth.

⁹ Congressional Research Service (2023), The Section 45Q Tax Credit for Carbon Sequestration



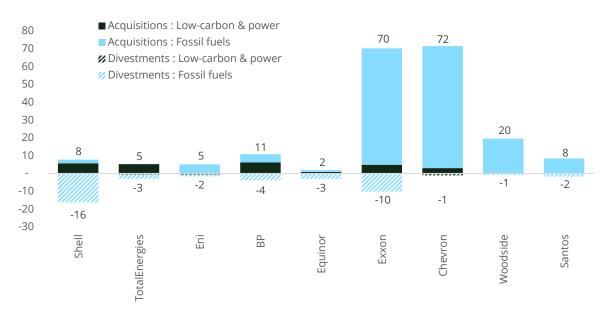
⁷ <u>US Energy Information Administration (2023), Market Prices for Renewable Fuel Standard credits are falling</u>

⁸ Energinet (n.d.), Biomethane Guarantees of Origin.

Transaction value

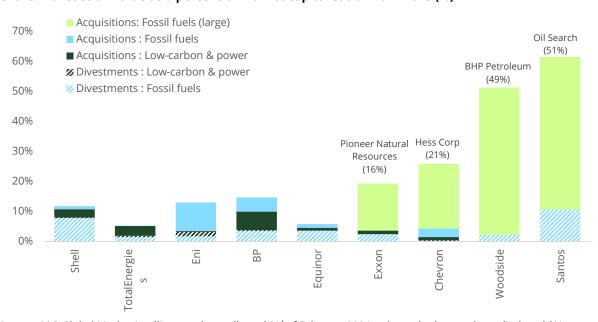
Of the 307 acquisitions & divestments across fossil fuels and low-carbon & power, around one-third have values disclosed, totalling \$242bn. Looking at transactions value companies continue to play it safe when betting on low-carbon & power with 6.5x more being spent on fossil fuel acquisitions vs. low-carbon (2x ex. Hess and Pioneer). Exxon and Chevron acquisitions of Pioneer and Hess exceed any other acquisitions (low-carbon and fossil fuels) made by other majors between 2021-2023. Shell has divested the most fossil fuel assets valued at \$16bn, and Exxon \$10bn. As a percentage of market capitalisation Woodsides acquisition of BHP assets (2022, ~\$20bn) and Santos' acquisition of Oil Search (2021, \$8bn) was ~50% of their current market capitalisation, more than double that of the announced mega deals in the US at Exxon and Chevron.

Chart: Transaction values of acquisitions and divestments 2021-2023 (\$USbn)



Source: S&P Global Market Intelligence, value only shown where disclosed, data collected 2nd of February 2024

Chart: Transaction value as a percent of market capitalisation 2021-2023 (%)



Source: S&P Global Market Intelligence, data collected 2nd of February 2024, value only shown where disclosed | Note post completion, Hess ~18% of post deal market capitalisation, and Pioneer ~14% of Exxon.



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