

# Investor Briefing: Shell's gamble on gas



Updated research and analysis ahead of Shell's 2025 AGM

# Executive summary

Shell plc is advancing its LNG growth strategy - betting on a future where liquefied natural gas (LNG) plays a major role in the energy mix, particularly in emerging markets.

However, with more than 1.4 billion tonnes of uncontracted LNG – more than any other independent oil and gas company – Shell is exposed to major risks should demand, and hence price, fail to meet its expectations. Additionally, it is not clear how Shell's LNG growth ambitions reconcile with its climate commitments, including its target to reach net zero emissions by 2050.

The veracity of Shell's LNG strategy and the bullish demand forecasts that underpin it have been questioned by previous research,<sup>1</sup> and are the subject of a shareholder resolution filed by institutional investors ahead of the 2025 AGM. The resolution asks Shell to disclose how its LNG production and sales targets, demand forecasts and new capex are consistent with its climate commitments.

Whether Shell's bullish position on LNG demand is a sound basis for a responsible LNG strategy is under scrutiny - yet the company's LNG Outlook 2025 does not sufficiently justify its LNG growth strategy or explain why it takes such an outlier position on demand. It is concerning that Shell's LNG forecast has remained unresponsive to major shifts in the global energy market over recent years - changes which will likely reduce long-term demand.

Investors require confidence that Shell's strategy is resilient through the energy transition. However, the company has yet to deliver.

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1. ACCR, 2024, [Shell's LNG strategy: Overcooked?](#)

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# Key findings

- Shell has more uncontracted LNG than any other independent oil and gas company, exposing it to major risks in a lower price environment.
- If LNG was priced competitively with renewables in developing markets, the Net Present Value (NPV) of Shell's LNG assets would be -\$10 billion,<sup>1</sup> which is \$90 billion less than their NPV under Rystad's central price assumptions. The NPV of Shell's LNG assets falls by \$14 billion with each \$1/MBtu reduction in LNG prices.
- Shell's 2025 LNG demand outlook overshoots all IEA scenarios and is 21% higher than STEPS – a scenario which assumes that no further emissions reduction policies will be implemented between now and 2050.
- Shell's outlook for LNG has remained unresponsive to dramatic changes in energy markets over recent years that will likely reduce LNG demand.
- On Shell's Capital Markets Day, the company produced a graph showing the position of its under-construction LNG assets on a global cost curve in a way that overstates its cost competitiveness.
- Shell's LNG Outlook 2025 provides nearly no insight into bulk LNG demand beyond 2025, except for assertions of LNG demand by sector and a list of "demand drivers". Each of these drivers are contestable and the Outlook itself doesn't provide sufficient information to substantiate its bullish forecast.
- Shell has not explained how its climate commitments are achievable given its LNG growth strategy.

1. All \$ currencies are USD unless otherwise stated.

# It is unclear how Shell reconciles its LNG growth strategy with its climate commitments

## Shell's LNG growth ambitions:

- 25-30% growth in liquefaction capacity.<sup>1</sup>
- Growing sales by 4-5% a year through to 2030.<sup>2</sup>

In December 2024, it acquired a 50% stake in Argentina LNG, increasing its pre-FID uncontracted LNG exposure by over 100Mt of LNG to 2050.

Shell's annual directors' bonus incentivises LNG volume growth.

## Shell's climate commitments:

- Net zero by 2050 - which “supports the more ambitious goal of the Paris Agreement” [1.5°C of warming].
- 15-20% NCI reduction by 2030.
- Shell sees LNG as “a critical fuel in the energy transition”<sup>3</sup> and that “supplying LNG will be the biggest contribution [it] makes to the energy transition.”<sup>4</sup>

“

**We want to become the world's leading integrated gas and LNG business and the most customer-focused energy marketer and trader, while sustaining a material level of liquids production.<sup>3</sup>**

1. Shell 2023 Capital Markets Day, p. 26.  
2. Shell 2025 Capital Markets Day, p. 26.  
3. Shell Energy Transition Strategy 2024, p. 3.  
4. Shell Annual Report and Accounts 2024, p. 4.



# The financial risks of Shell's LNG strategy



- Shell has built an unprecedented long LNG position – leaving it heavily exposed to a lower price environment
- The company's main disclosure of LNG pricing risks uses an accounting metric that isn't designed to assess value at risk

# If LNG was priced competitively against renewables in the emerging markets where Shell forecasts the bulk of demand, its LNG assets would have negative NPV

Shell expects 80% of increased LNG demand to come from Asia.

For LNG to be cost-competitive with renewables in Asia, it needs to be <\$5/MBtu (see slide 25).<sup>2</sup> In this price environment, Shell's:

- producing assets would have minimal value
- under-construction projects would erode \$3.9 billion
- pre-FID projects sanctioned under the Shell price assumption and hurdle rate would erode \$12.8 billion.

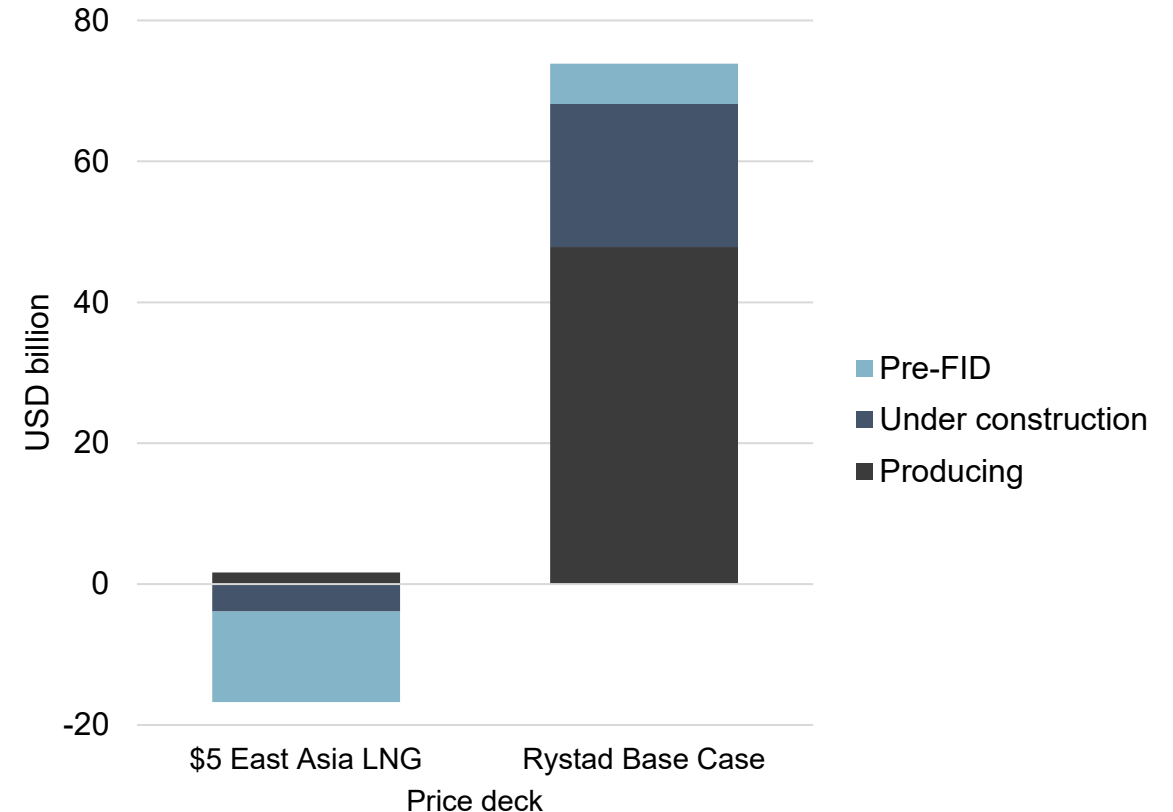
If East Asian LNG was priced at \$5/MBtu, the Net Present Value (NPV) of Shell's assets would fall by \$90 billion, relative to a scenario using Rystad's base price assumptions.



**Gas-importing emerging and developing economies would generally need prices at around USD 3-5/MBtu to make gas attractive as a large-scale alternative to renewables and coal, but delivered costs for most new export projects need to average around USD 8/MBtu to cover their investments and operation.**

**IEA, 2024 WEO**

**The NPV of Shell's LNG projects under different scenarios<sup>1</sup>**



Source: Rystad Energy data, ACCR analysis

1. NPVs calculated using the Rystad Upstream Economic Model with discount rates adjusted for country risk. This is updated from our previous analysis and includes an updated valuation date and Rystad data.  
2. Calculated using BloombergNEF LCOE model data, assuming 50% CCGT efficiency.

# Shell has not disclosed a valuation sensitivity to low LNG prices; its impairment sensitivity understates the NPV impact

Investors need to see the **value at risk** for different pricing scenarios in Shell's LNG portfolio because this is material to their understanding of the company's LNG strategy.

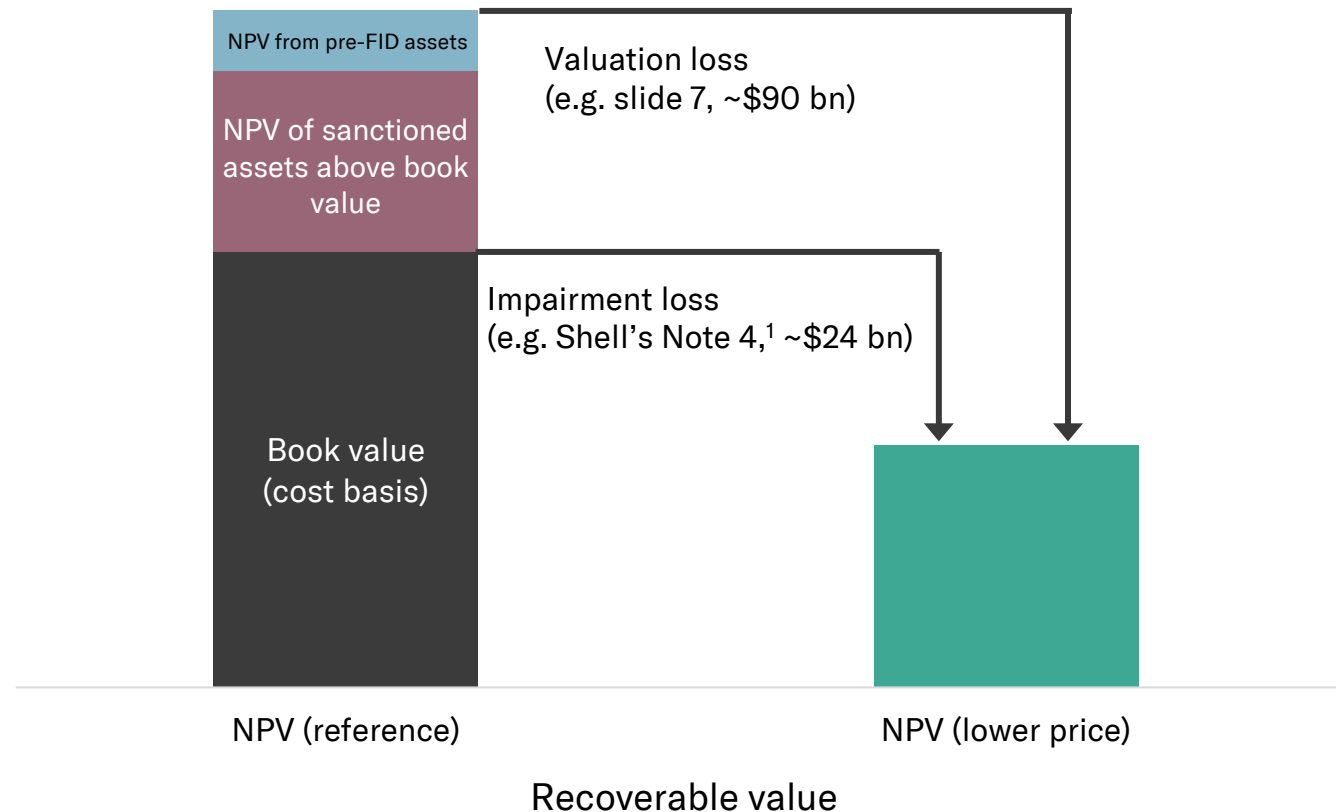
Shell has done an impairment sensitivity<sup>1</sup> that estimates potential losses of \$21-27 billion to its Integrated Gas business under the IEA's NZE scenario.

This sensitivity analysis structurally understates the risk to shareholder value because it:

- assesses only the potential reduction in book value of an asset without reflecting the NPV of an asset above its book value
- only applies to capitalised costs and ignores future investments, therefore cannot capture increased exposure to low prices from Shell's growth ambitions.

A more detailed reconciliation between ACCR's valuation sensitivity and Shell's NZE impairment disclosure is in Appendix 1.

## Impairments structurally understate risk to shareholder value



1. Note 4 of Shell's 2024 Annual report, p. 259.



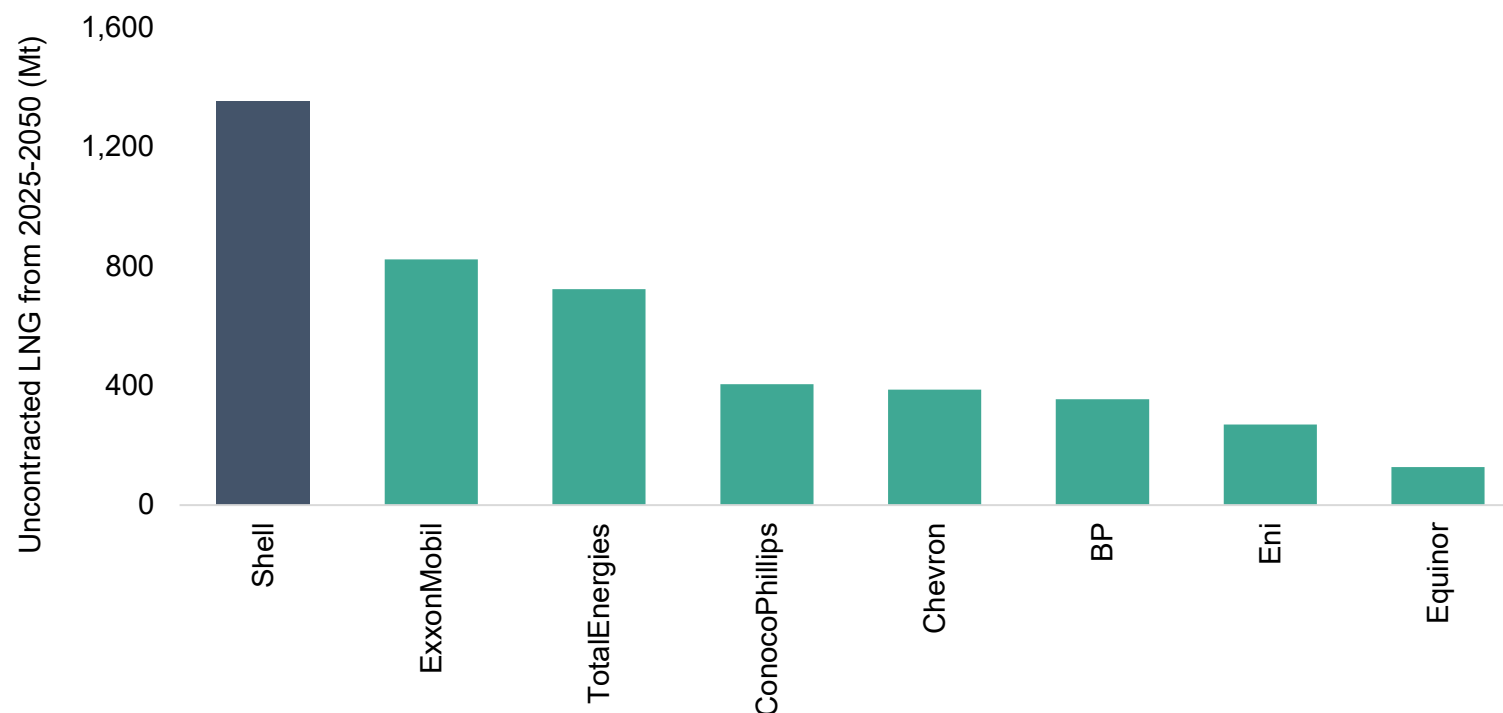
# Shell has more uncontracted LNG than any other independent oil and gas company, exposing it to major risks in a lower price environment

Over the past year, Shell's uncontracted LNG position from 2025 to 2050 has increased by 190 Mt. This is largely due to:

- its acquisition of Argentina LNG
- signing 80 Mt of long-term LNG purchase contracts, but just 40 Mt of long-term sales contracts.

**For every \$1/MBtu drop in LNG price, Shell's portfolio loses \$14 billion in NPV.<sup>2</sup>**

**Shell has over 1.4 billion tonnes of uncontracted LNG - more than any other independent oil and gas company<sup>1</sup>**



Source: Rystad Energy data, ACCR analysis

1. Analysis excludes spot purchases and unannounced contracts, such as short-term contracts and regasification capacity positions. See ACCR, 2024, [Shell's LNG strategy: Overcooked?](#), Appendix 1 for our modelling approach and reconciliation of Shell's data.  
2. Assumes no change to other gas market prices.

# Shell's already large exposure to LNG spot prices is forecast to further increase

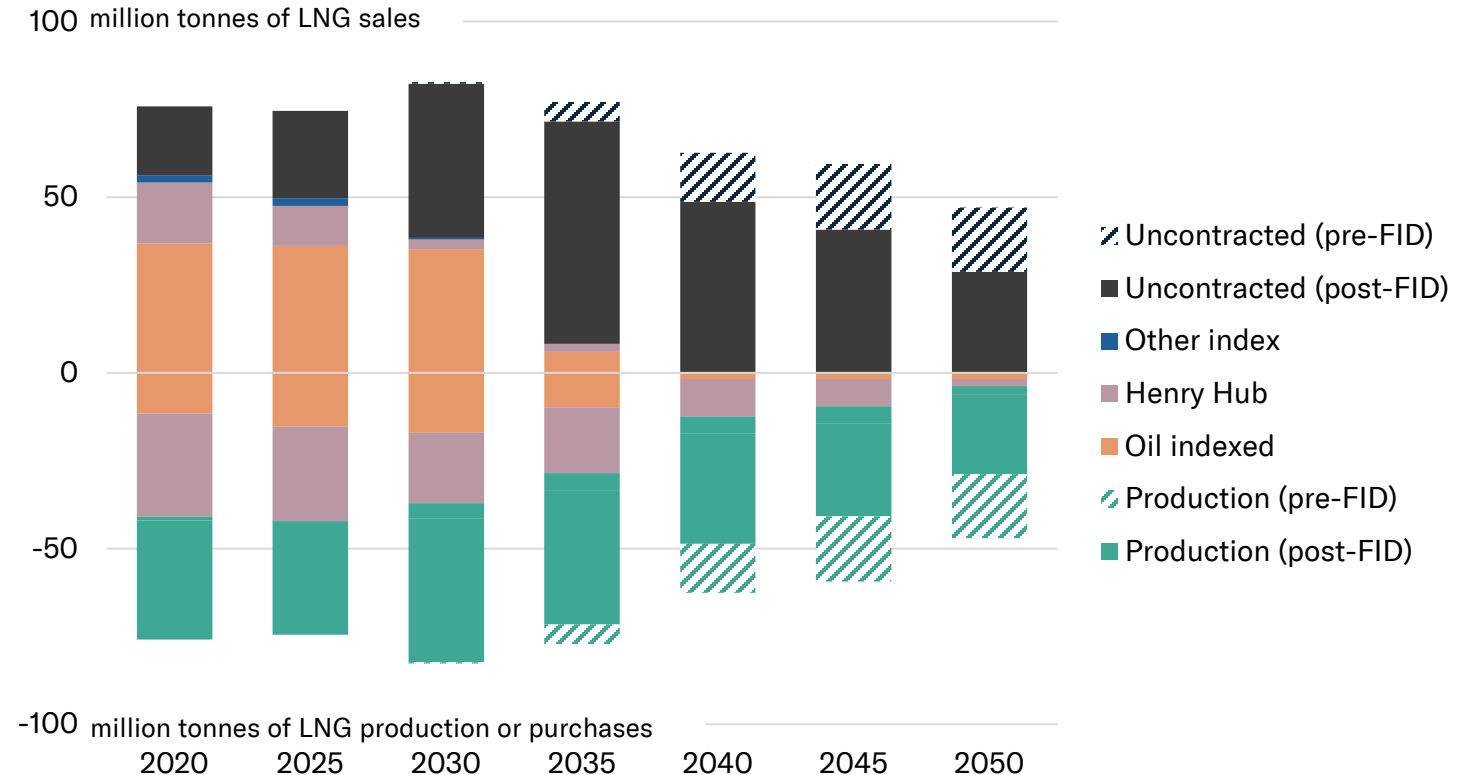
Shell's exposure to LNG spot prices is still increasing because:

- its uncontracted volume increases by 177% from 2025 to 2035
- the majority of its long-term sales contracts expire by 2035
- it continues to allocate capex to new LNG infrastructure.

Shell may sign contracts to shift the risk from gas spot prices to pricing indices, but:

- this will not remove pricing risk from Shell's portfolio, because contracts are rarely fixed price
- Shell may not be able to achieve favourable terms if the LNG glut forecast by the IEA and BloombergNEF eventuates.

## Shell's uncontracted volume increases by 177% from 2025 to 2035<sup>1</sup>



Source: Rystad Energy data, ACCR analysis

1. Reflects a total production and trading position. Analysis excludes spot purchases and unannounced contracts, such as short-term contracts and regasification capacity positions. See ACCR, 2024, [Shell's LNG strategy: Overcooked?](#), Appendix 1 for our modelling approach and reconciliation of Shell's data.

# Cost advantaged?

The background of the slide is a photograph of an offshore oil rig, likely a jack-up rig, positioned in the middle of the ocean. The rig's structure is complex, with a central derrick and various platforms. The water is a deep blue, and the sky is a lighter blue. The rig is the central focus of the image, with its legs extending into the water.

- On Shell's Capital Markets Day, the company produced a graph showing the position of its under-construction LNG assets on a global cost curve in a way that overstates its cost competitiveness.

# Shell's presentation of its LNG growth portfolio overstates its cost competitiveness

At its 2025 Capital Markets Day, Shell produced a graph showing the position of its under-construction LNG assets on a global cost curve. This graph depicts Shell as highly cost-competitive.

The primary problem with this depiction is that **75% of Shell's included projects are backfills,<sup>1</sup> but these are not shown for the rest of the market, which also have backfills.** In colloquial terms, this is like comparing cheap apples with expensive oranges. Because it is cheaper to build part of an LNG facility, rather than a whole LNG facility, it is no surprise that Shell looks so competitive compared to the market.

Other issues with the graph include:

- **Unlike typical cost curves, the graph doesn't show each project's capacity.<sup>2</sup>** Shell's average cost is \$6.76/MBtu when the same weight is given to each facility, but \$7.28/MBtu when weighted by capacity and \$8.70/MBtu when also including its long-term Henry Hub contracts.
- **The graph implies that Shell isn't exposed to US LNG, but it has more long-term<sup>3</sup> US Henry Hub offtake contracts than:**
  - any other company
  - it has LNG capacity under construction.

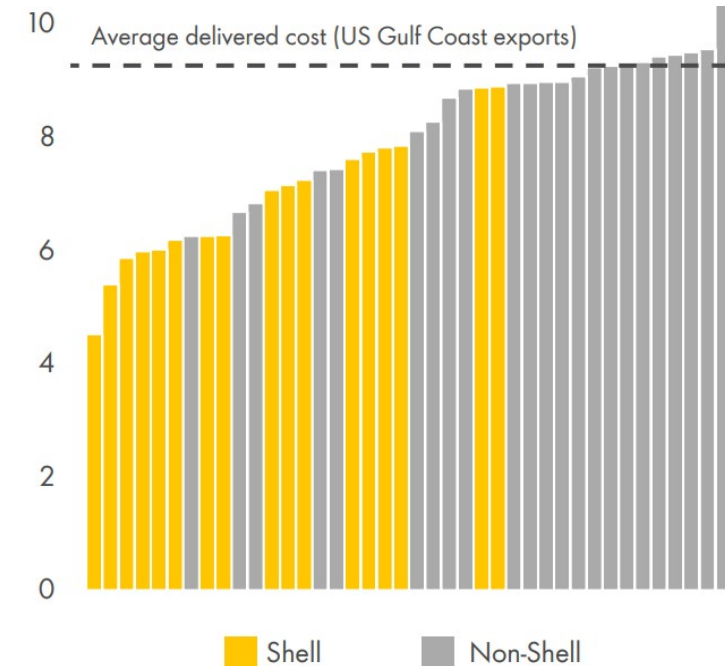
Under Shell's price deck, its contracts average \$9.91/MBtu when delivered to Japan.

- **Shell could have used a more representative benchmark.** The cost of US Gulf Coast facilities is presented as the benchmark, but these make up ~30% of under-construction LNG capacity. A more representative benchmark would be the average of all under-construction LNG facilities, which is \$7.82/MBtu - more than half of Shell's under-construction LNG capacity is more expensive than this.
- **Shell uses internal data for its projects, but third-party data for competitors' projects.** While Shell has more specific information about its projects, oil and gas projects exceed budgets by 34% on average,<sup>4</sup> so third-party data may still be more reliable. In either case, data comparability is reduced when mixing datasets.

## Shell's graph from its Capital Markets Day<sup>5</sup>

### Strengthening portfolio with cost competitive supply additions<sup>2</sup>

LNG Delivered Cost Tokyo Bay (\$/mmBtu)



<sup>2</sup> Source: Non-Shell projects (liquefaction projects only) - Wood Mackenzie, Shell projects - Shell internal data (includes backfills and liquefaction), shareholder view.

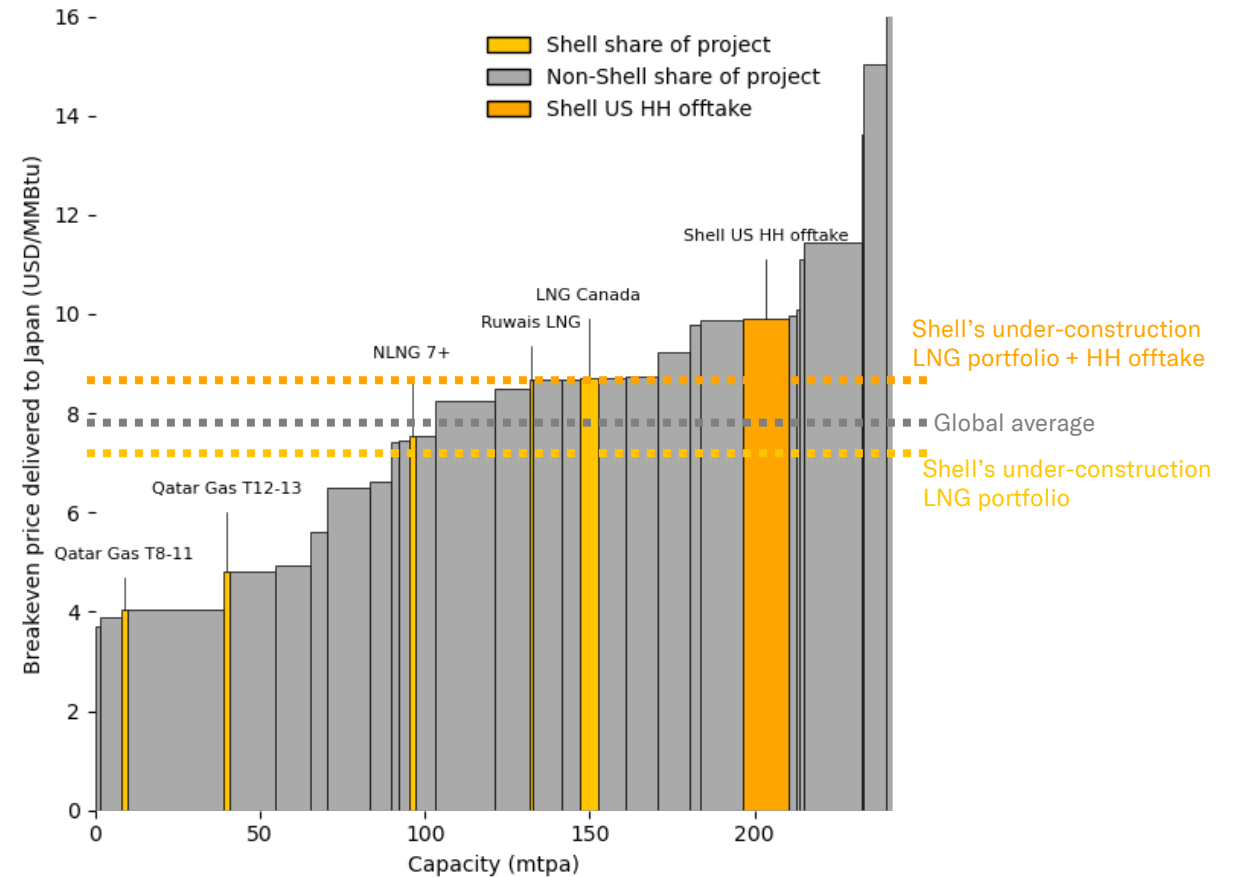
1. A backfill provides new gas supply for an LNG facility that has spare capacity. They are typically low-cost because they don't incur the costs of building liquefaction equipment.  
2. Shell doesn't indicate its stake in each project, but of its four under-construction LNG facilities, it has larger stakes in the more expensive projects (LNG Canada and Nigeria LNG expansion) and smaller stakes in the cheaper projects (Qatar LNG expansions).  
3. Shell's HH contracts remain at 14.1 Mtpa until they start expiring from 2035.  
4. Flyvbjerg and Gardner, How big things get done, 2023, p. 216.  
5. Shell, Capital Markets Day, March 2025, slide 27.

# Remodelling the cost curve of Shell's under-construction LNG assets gives a more sobering view of its relative cost position

To visualise the competitiveness of Shell's LNG growth portfolio we built a global cost curve of under-construction LNG facilities. Our model:

- removes Shell's 12 backfill projects to be consistent with how the LNG portfolio of Shell's competitors is shown.
- changes the width of each projects' column to reflect its capacity, as per a typical cost curve.
- splits Shell's share of each project into its own labelled column, so it's clear how much capacity Shell is delivering at each price point.
- adds Shell's US Henry Hub offtake contracts, using its Henry Hub price assumption. While we have not done this for peers, we think it is relevant considering Shell's focus on the cost of US LNG in its material.
- adds the average price of all under-construction projects as the benchmark, as well as Shell's average portfolio price.

## Our view of Shell's under-construction projects on the LNG cost curve



Source: Rystad Energy data, Shell 2024 data book, ACCR analysis

# Shell's bullish demand forecast

The background of the slide is a photograph of an offshore oil rig, likely a jack-up rig, positioned in the middle of the ocean. The rig's complex structure, including its derrick and various platforms, is visible against a dark, overcast sky. The water appears calm. The overall tone of the image is industrial and somewhat somber due to the dark lighting.

- **Shell's LNG demand outlook overshoots all IEA scenarios and is 21% higher than STEPS, which assumes that no further emissions reduction policies will be implemented.**
- **The company's LNG outlook has remained unresponsive to dramatic changes in energy markets over recent years – despite developments that will likely reduce demand.**



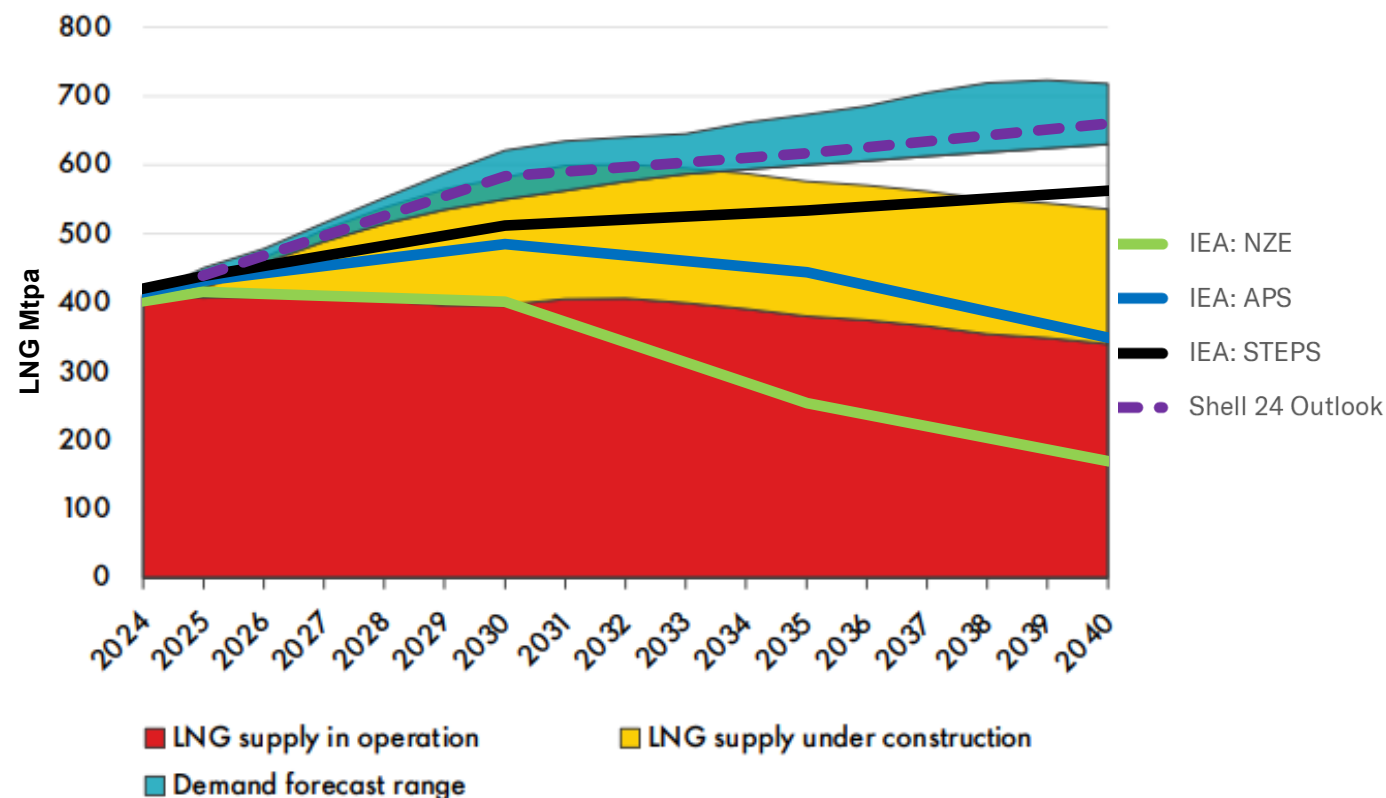
# Shell's LNG demand outlook significantly exceeds LNG demand in every one of the IEA's scenarios – including the Stated Policies Scenario (STEPS)

Shell's forecasts for LNG demand in its LNG Outlook 2025 are:

- **21% higher than STEPS**, which is the IEA's highest emissions scenario, resulting in 2.4°C warming. This reflects a world where further emissions reduction policies are *not* implemented between now and 2050, even where countries have pledged to do so.
- 96% above the APS (Announced Pledges Scenario)
- 310% above the NZE (Net Zero Emissions) scenario
- incrementally higher than its 2024 Outlook, across all time frames
- based on a Wood Mackenzie scenario that results in 2.5°C of climate change.

Shell's LNG Outlook 2024 misinterpreted LNG demand in the IEA's NZE, with the effect of showing its LNG outlook to be closer to a 1.5°C climate outcome than it is.<sup>1</sup> Subsequently, Shell removed any reference to the IEA's scenarios from its 2025 Outlook.

## Shell's LNG demand forecast is much more bullish than the IEA's



Source: Shell 2024 & 2025 LNG Outlook, IEA World Energy Outlook (WEO) 2024

1. ACCR, 2024, [Shell's LNG strategy: Overcooked?](#)

# Shell's LNG forecast has remained unresponsive to dramatic changes in the global energy market over multiple years – despite developments that will likely reduce long-term demand

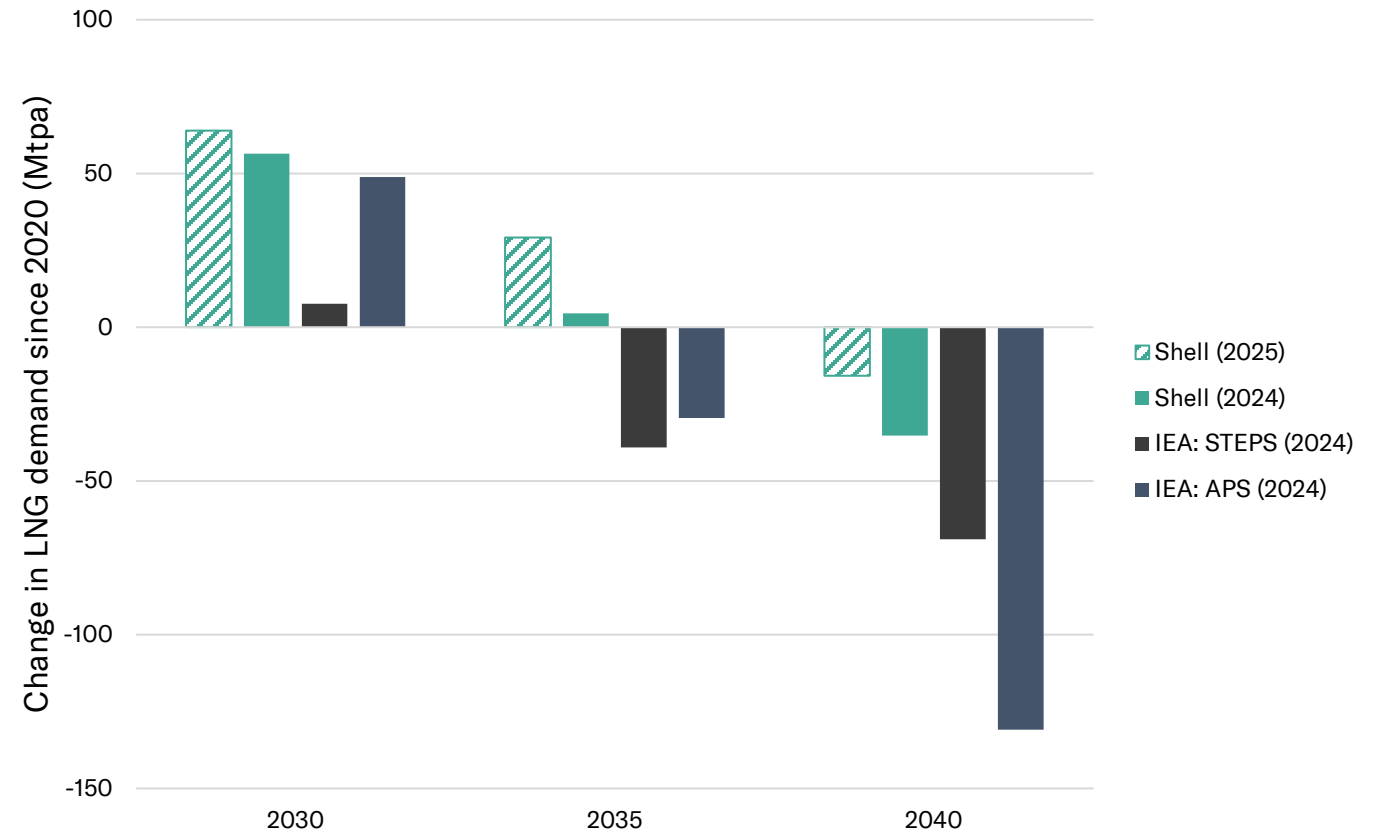
Over the past four years we've seen several changes to the gas market that will likely reduce long-term demand:

- Unexpectedly steep declines in price for renewables and batteries.
- Significant medium and long-term demand destruction caused by the short-term LNG price spike following the Russian invasion of Ukraine, particularly for SE Asian customers who were priced out of the market.
- Countries starting to implement the Paris Agreement's 'pledge and review' mechanism, which requires countries to increase their climate ambition over time.

**These changes have seen the IEA significantly reduce projected LNG demand beyond 2030.**

**But Shell's LNG demand forecast has been relatively unresponsive to these changes.**

## Shell's long-term LNG projections have not materially changed since 2020



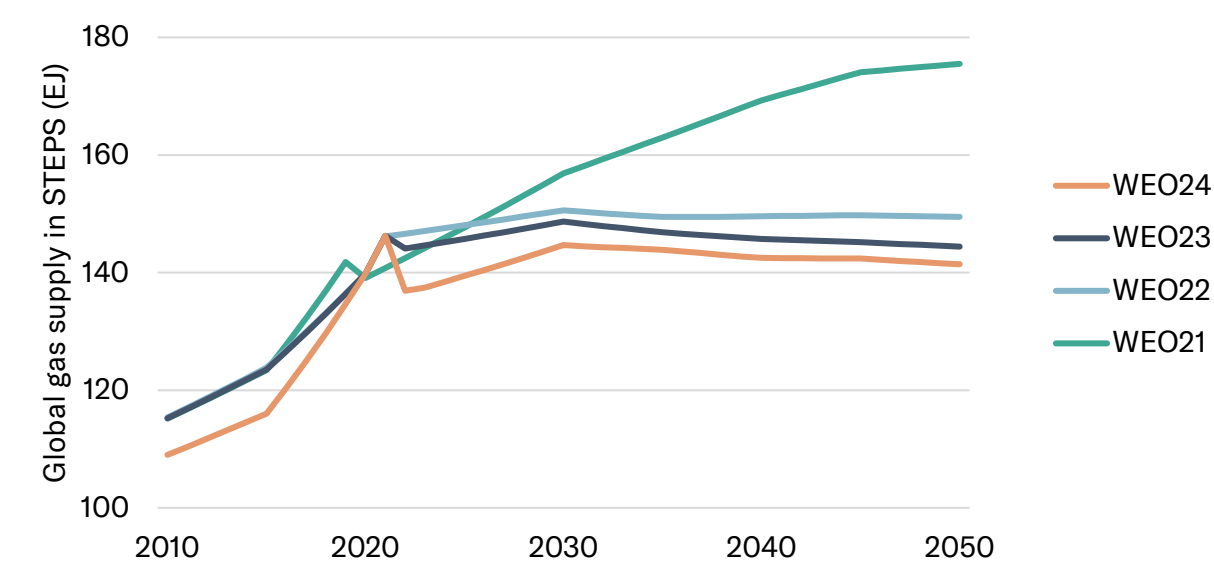
Source: Shell's 2020, 2024 & 2025 LNG outlooks; IEA 2020 & 2024 WEO

# In the IEA’s scenarios, fossil fuel consumption typically decreases with each new World Energy Outlook (WEO)

Shell is forecasting a future with more LNG consumption than the IEA’s STEPS, but the world’s fossil fuel trajectory has headed in the opposite direction for several years, while forecasts for renewables have increased.

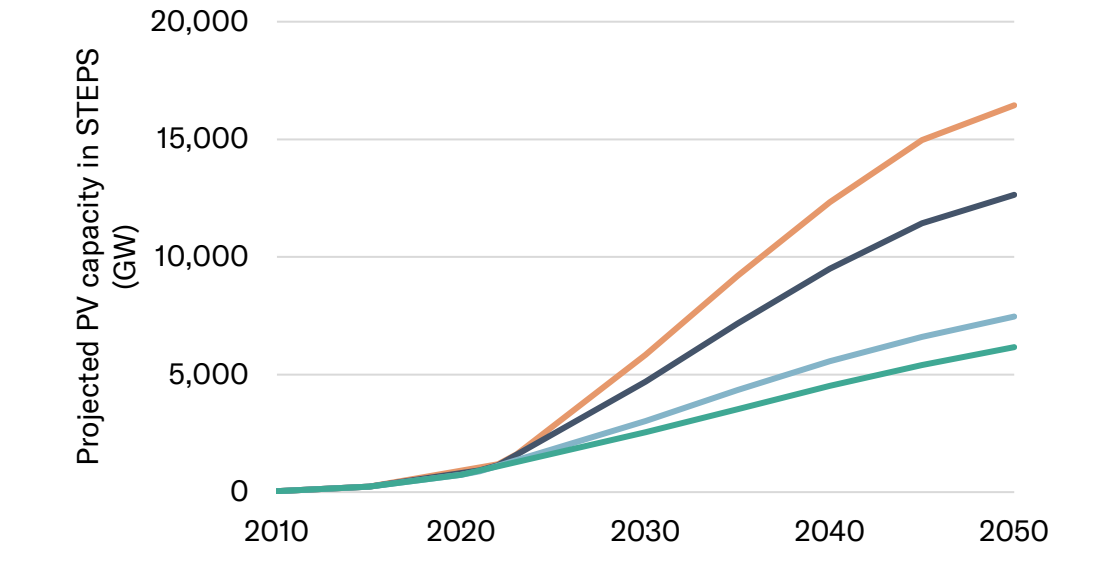
If Shell thinks countries are renegeing, or will renege, on existing climate policies, it should be able to explain what these are and reconcile how its outlook is different to STEPS.

Projected gas use has declined in each successive WEO



Source: Extended datasets from WEO 2021 through to WEO 2024, interpolated with CAGR

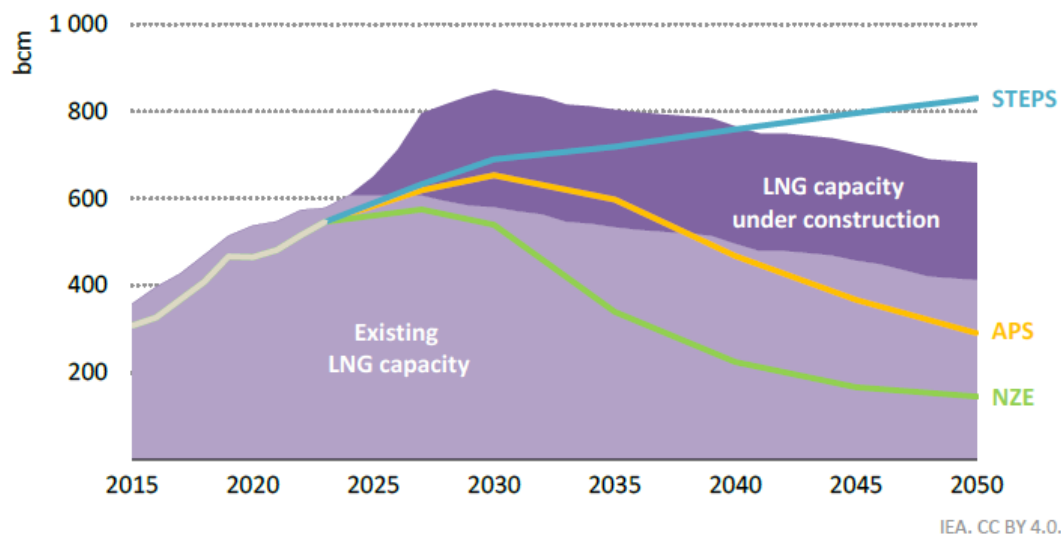
Projected PV capacity has increased in each successive WEO



Source: Extended datasets from WEO 2021 through to WEO 2024

# Other organisations are forecasting an LNG surplus later in the decade

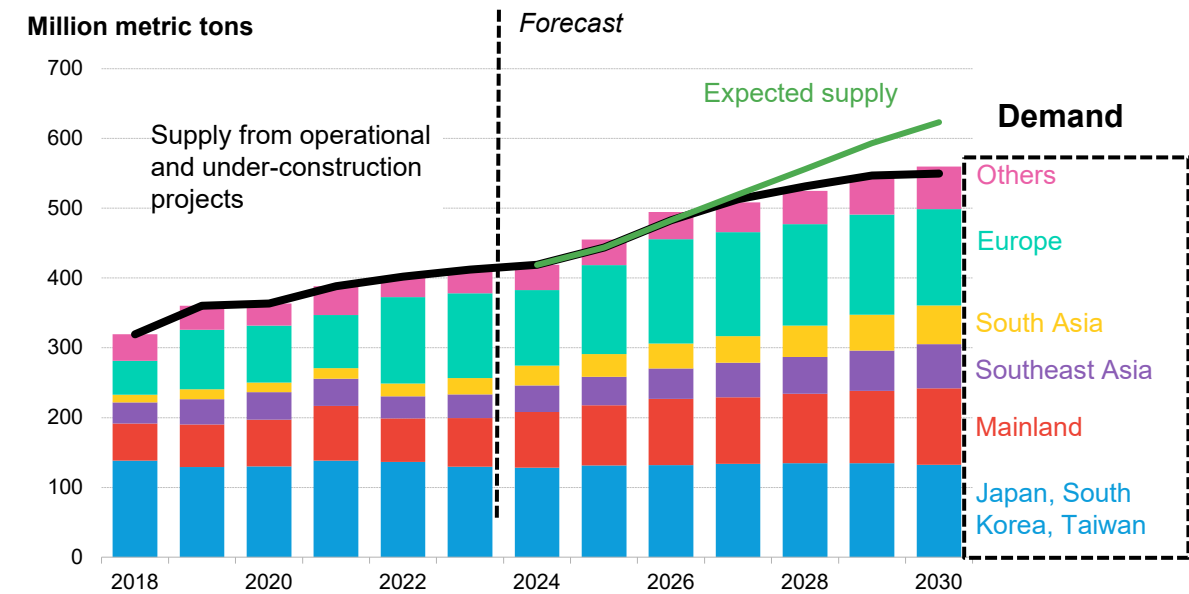
## The IEA sees an LNG glut emerging from the mid-2020s



There is additional surplus of around 130 bcm of LNG by 2030 in the STEPS based on current project announcements; this surplus declines after 2030 as LNG capacity reduces

Source: IEA, 2024 World Energy Outlook, p. 180

## Bloomberg sees an LNG glut emerging from 2027



Source: Bloomberg Finance LP, 2024 Global LNG Market Outlook, Used with permission of Bloomberg Finance LP

# Shell's LNG Outlook 2025

The background of the slide is a photograph of an offshore oil rig, likely a jack-up rig, positioned in the middle of the ocean. The rig's structure, including its legs and platform, is visible against a dark, overcast sky. The water is a deep blue-grey. The rig is oriented horizontally across the frame, with its legs extending towards the bottom corners.

- As with the previous years' Outlook, Shell's LNG Outlook 2025 fails to sufficiently justify its LNG growth strategy
- While the company cites a number of key 'demand drivers', it does not substantiate how they influence LNG demand, or why Shell takes such an outlier position on LNG demand

# Given Shell's LNG ambitions and its outlier position on demand, investors need to be able to determine if its growth strategy is resilient - the LNG Outlook 2025 fails to offer this insight

Previous analysis found a range of problems with Shell's LNG Outlook 2024.<sup>1</sup> The Outlook 2025 neither responds to these issues<sup>2</sup> nor substantiates its bullish long-term LNG demand outlook.

## The LNG Outlook 2025 offers interesting insights into:

- changes in regional gas consumption in selected markets for 2024
- expected growth of niche LNG applications to 2030 (e.g. LNG trucks)
- delays to LNG projects that are currently under construction.

## What investors need instead:

- **convincing explanations of how identified 'demand drivers' will grow LNG demand by 60% by 2040**
- insights into LNG demand beyond 2025 and especially beyond 2030
- an understanding of the financial risk Shell faces should LNG demand fail to live up to Shell's expectations
- a reconciliation of Shell's climate ambitions with its LNG growth ambitions.

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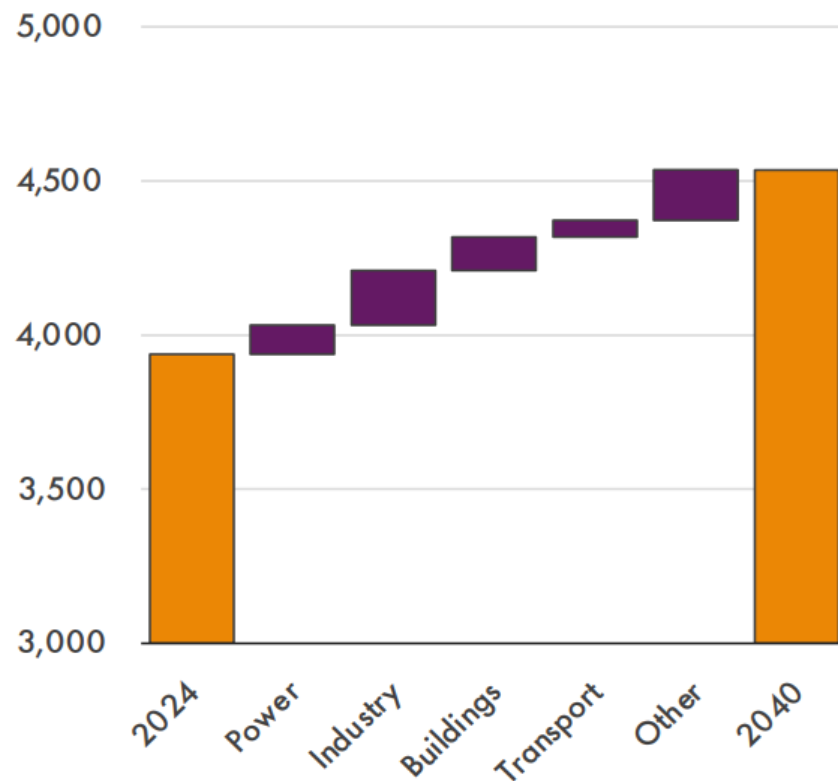
1. Including our research, [Shell's LNG strategy: Overcooked?](#)

2. Appendix 2 shows that Shell has not responded to any of our criticisms of its 2024 LNG Outlook.



# Shell does not sufficiently justify how 'demand drivers' will increase LNG demand to 2040

Natural gas demand 2024-2040  
BCM



In addition to the segments shown in the chart, Shell cites a range of LNG 'demand drivers':<sup>1</sup>

- Traditional biomass, oil and coal use fall
- Gas switching in power sector
- Increase in gases for transport
- Data centres and AI
- Low-carbon gases
- Asian economic growth<sup>2</sup>

**But Shell provides little to no evidence to explain how these drivers increase demand.**

Much more focus is on applications in the least material segments, e.g. LNG trucks.

Source: Shell LNG Outlook 2025, slide 5

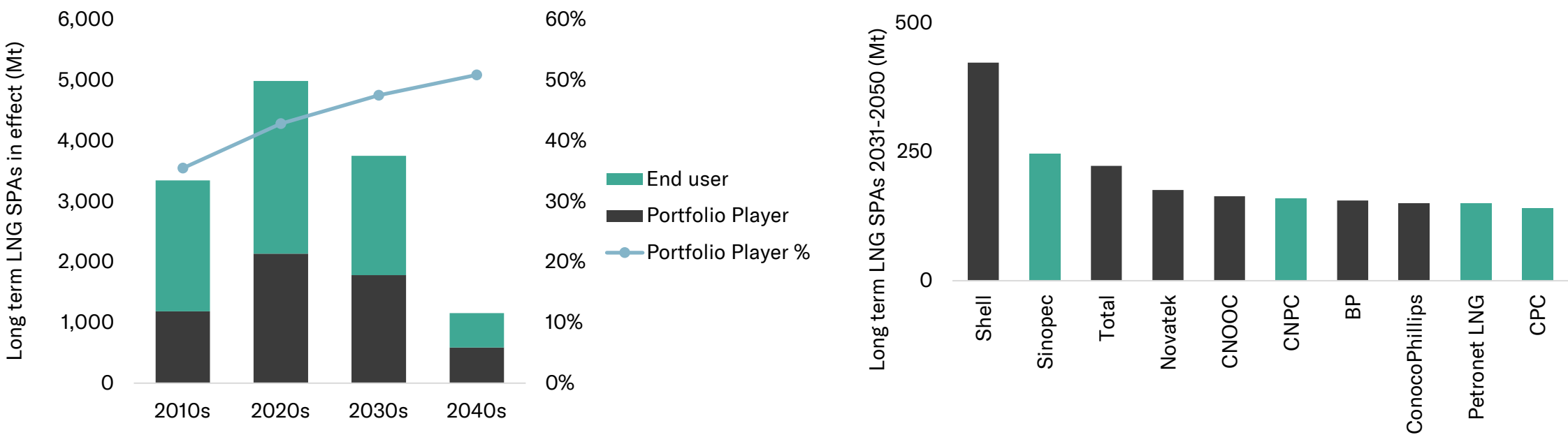
1. For a more detailed analysis of Shell's demand drivers, see slide Appendix 3.  
2. Shell LNG Outlook 2025 [Media Release](#).

# Shell suggests long-term LNG contracts are a sign of LNG demand, but many of these contracts are with portfolio players, not end consumers

Shell’s 2024 and 2025 LNG Outlooks present long term LNG contract data, but these are not necessarily a sign of long-term LNG demand, because:

- producers and traders (or 'portfolio players') are increasingly engaging in long-term Sales and Purchase Agreements (SPA’s). Of those LNG contracts extending beyond 2030, about half of the related LNG is being purchased by portfolio players, who have no intention of using the LNG
- Shell, itself, is the largest LNG purchaser beyond 2030 and it does not consume material amounts of LNG.

## Almost half of the world’s largest long-term LNG buyers are portfolio players (producers and/or traders)



Source: Rystad Energy data, ACCR analysis

## Shell is betting on LNG demand growth coming from a range of sources - but there are risks to these projections

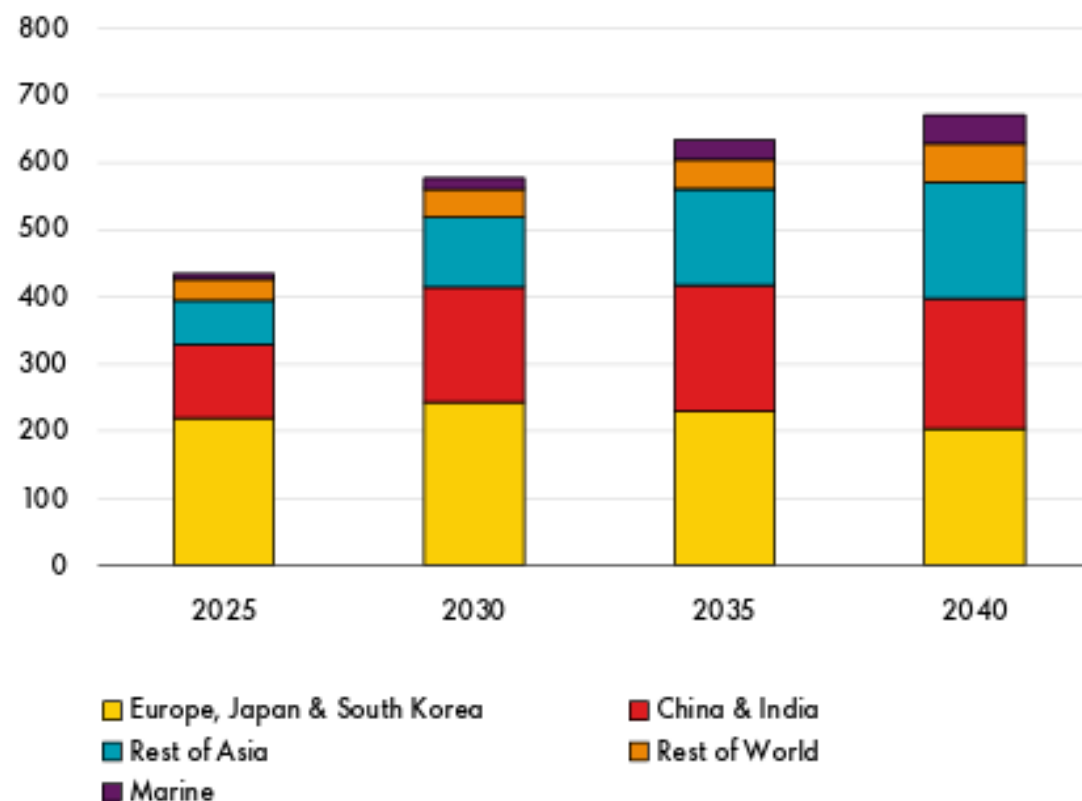
According to Shell, changes to the world's LNG demand between 2025 and 2040 will come from:

- China and India (35% of the increase)
- rest of Asia (46% of the increase)
- rest of world (12% of the increase)
- marine (15% of the increase)
- Japan, South Korea and Europe (7% decrease).

Except for marine, we see a range of risks to these projections because:

- renewables are outcompeting gas power almost everywhere, in terms of both deployment and cost
- Indian, Chinese and other Asian customers are likely to be wary of relying on imported fuel as trade tensions escalate.

Global LNG demand - Shell's view (mtpa)



Source: Shell LNG Outlook 2025

# Shell underestimates competition from renewables - and the extent to which they are cheaper, lower in emissions, more modular and reduce the risks associated with a dependence on energy imports

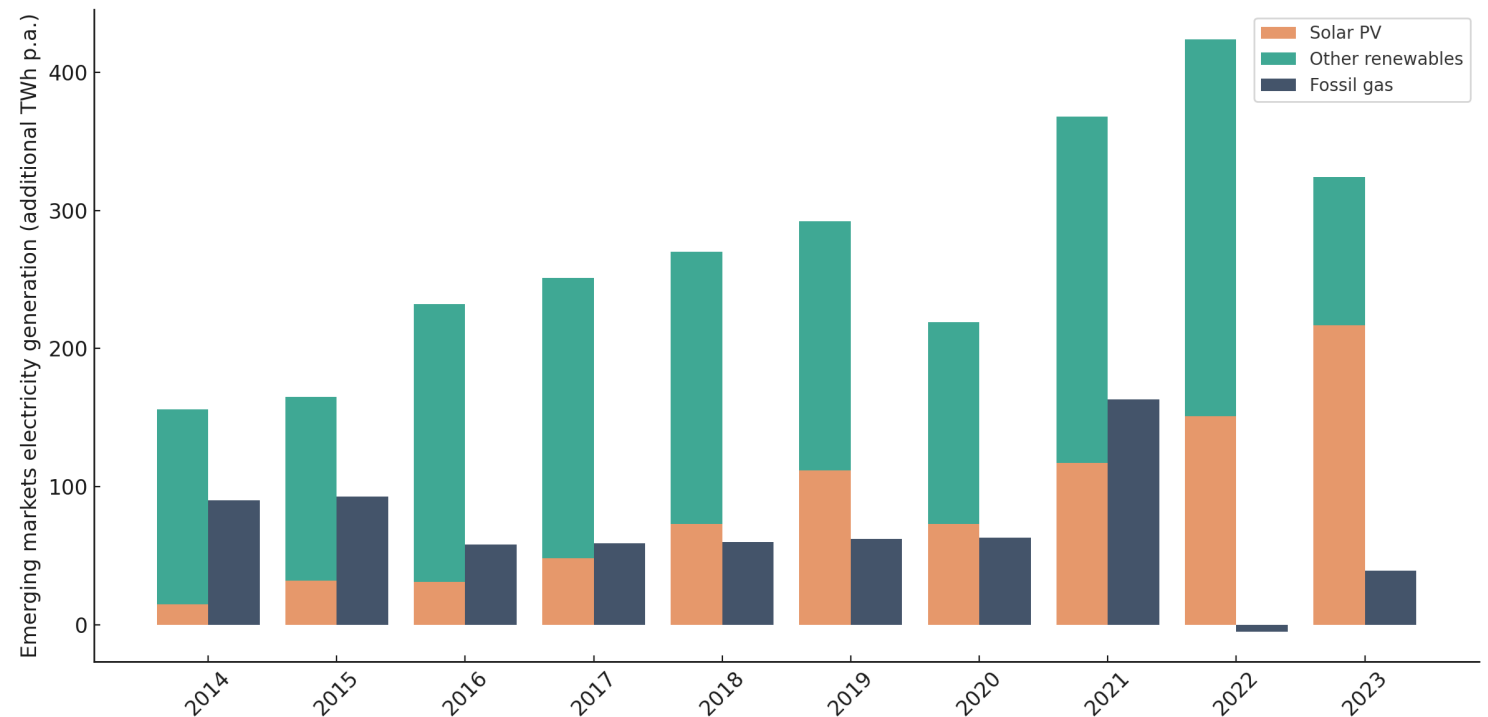
Renewables have been outcompeting fossil gas powered electricity in emerging markets (including China and India) for some time.

In the last decade emerging markets have increased their renewable generation four times as fast as gas generation. Since 2020, PV alone has grown twice as fast as gas generation.

To date, additional renewables have not required accelerated gas generation to firm electricity grids.

In one striking example, Pakistan imported PV equivalent to 26% of its existing grid capacity in six months of 2024<sup>1</sup> and is now delaying LNG cargoes in 2025 and 2026.<sup>2</sup>

## Renewables generation grew eight times faster than gas generation in emerging markets in 2023<sup>3</sup>



Source: IEA, WEO 2024, interpolated using CAGRs where raw data is not available

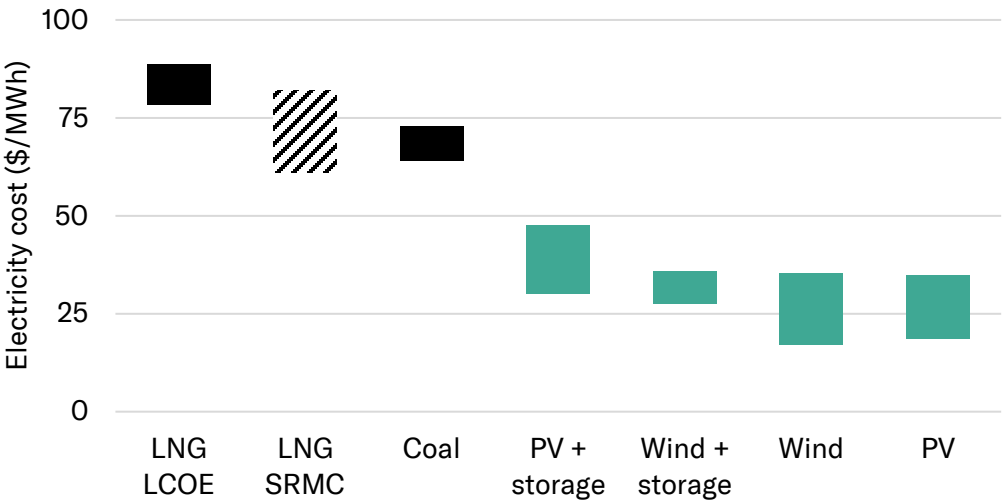
1. [Pakistan Sees Solar Boom as Chinese Imports Surge, BNEF Says.](#)
2. [SNGPL seeks PLL's intervention to address surplus RLNG cargoes for 2025 - Profit by Pakistan Today.](#)

# China and India are unlikely to materially increase LNG use for power, because it is not cost effective

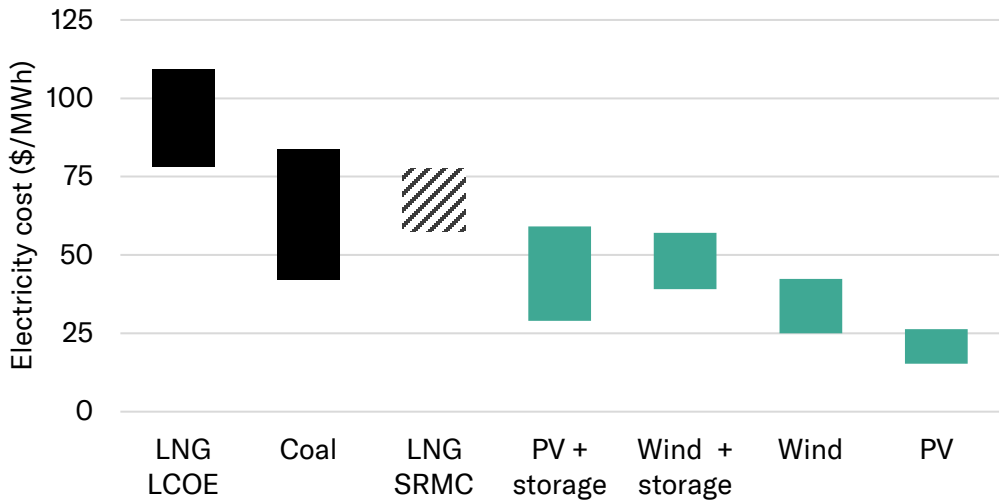
## Renewables are outcompeting gas power in China and India:

- building new solar or wind facilities firmed with battery storage is half the cost of operating existing LNG generators. Coal is also much cheaper than LNG fuelled power
- both countries are looking to increase their energy reliability, by reducing reliance on energy imports.

LNG is not a cost competitive electricity source in China...<sup>1</sup>



or India<sup>1</sup>

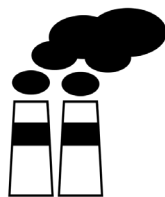


1. ACCR analysis of BloombergNEF data. LNG costs have been adjusted to \$9/MBtu, assuming 50% combined cycle gas turbine efficiency. 2030 data used to reflect lead time for LNG infrastructure and Shell's long-term LNG portfolio. LCOE = lifecycle cost of electricity, SRMC = short run marginal cost. Values are LCOE unless otherwise specified.

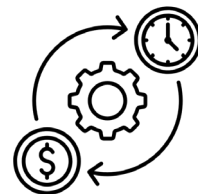
# Synthetic liquefied gas is expensive and inefficient, so is unlikely to expand beyond small niches



10x higher cost



80% lower  
emissions



26% efficient



\$1,900/tCO<sub>2</sub>e  
abatement cost

Shell didn't discuss the cost or emissions impact of Synthetic Liquefied Gas when it presented it as a low carbon replacement for LNG, but it previously concluded that synthetic fuels can be up to 8x as expensive as fossil fuels and 4x the cost of biofuels.<sup>1</sup>

A life cycle analysis of another power-to-liquids process concluded that synthetic jet fuel would cost almost 10 times more than fossil jet fuel, whilst reducing emissions by almost 80%.<sup>2</sup> This implies a greenhouse gas abatement cost of over \$1,900/tCO<sub>2</sub>e.

Although synthetic fuels may be required for niche markets with no alternatives, they seem unlikely to reach scale.

Shell made much of its hydrogen team redundant in 2023,<sup>3</sup> suggesting its predictions of how the hydrogen market will mature have previously been misplaced.

1. [Energy Transition Plan](#), 2024, p. 16.

2. Rojas-Michaga, et al, 2023, [Sustainable aviation fuel production through power-to-liquid \(PtL\): A combined techno-economic and life cycle assessment](#), Energy Conversion and Management. We were unable to find a peer reviewed LCA for synthetic LNG published since 2020.

3. [Exclusive: Shell cuts low-carbon jobs, scales back hydrogen in overhaul by CEO](#).



# What would a strategically relevant LNG Outlook look like?

Shell's LNG Outlook would provide a more useful basis for Shell's LNG ambitions and unprecedented long LNG position if it:

- explained how Shell's LNG strategy and view on LNG markets is consistent with its climate targets
- explained why Shell thinks demand will keep increasing through to 2040, especially for the major gas consuming sectors:
  - Power: how LNG will outcompete renewables (including batteries) and coal – especially considering that renewables are cheaper, faster to deploy, lower emissions and reduce dependency on imports. Why recent trends of exponential renewables growth will slow, when previous claims of limits on renewable growth have not eventuated
  - Industry: which industrial sub-sectors will support LNG demand and how LNG will outcompete alternative energy sources
  - Buildings: how LNG will outcompete electrification for heat, noting that heat pumps are several times more efficient than fossil fuelled heating systems.
- reconciled its Outlook with the IEA's independent scenarios, with an explanation of which IEA assumptions it disagrees with. We note that the IEA is forecasting a supply glut later this decade
- explained why the world will not only cease implementing new climate policies but will regress on existing policies. This should explain how the net impact of all policy changes will see less, rather than more climate action
- justified how LNG could repair its reputation as a reliable fuel, considering disruptions to global gas markets in recent years and escalating trade tensions between the world's largest LNG exporter and the world's largest LNG importer
- respond to credible critiques of Shells' previous Outlooks, such as the issues we raised regarding the 2024 Outlook.

# 2025 Shareholder Resolution

An aerial photograph of a large orange oil tanker ship being hoisted by a massive crane system. The crane's vertical mast and horizontal beams are visible above the ship, with several thick cables supporting it. The ship is positioned horizontally in the lower half of the frame. The background is a dark, textured surface, likely the sea or a construction site at night.

# Shareholder resolution filed by Brunel Pension Partnership, Greater Manchester Pension Fund, Merseyside Pension Fund & ACCR

## Special Resolution<sup>1</sup>

Shareholders request that the Company disclose whether and how its:

- demand forecast for liquified natural gas (LNG);
- LNG production and sales targets; and
- new capital expenditure in natural gas assets;

are consistent with its climate commitments, including its target to reach net zero emissions by 2050.

These disclosures shall be made by no later than the 2026 Annual General Meeting and shall include the criteria, data sources, methodologies and assumptions used to underpin these claims with reasonable detail, without disclosing any specific matters which are commercially sensitive.

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1. On 12 February 2025, Shell confirmed that ACCR's [resolution](#) was valid.

# Seeking answers: enhanced transparency for Shell investors on its LNG Outlook

## Financial risk

- How will Shell protect long-term value, given the likelihood of a supply glut and waning demand for long-term offtake agreements?
- How does Shell see LNG delivering attractive prices while competing with coal and renewables in price-sensitive markets?

## Demand projections

- Why has Shell's demand outlook been so unresponsive to major changes in global energy markets?
- Is the company reacting to short-term trends to build long-term strategy?
- Why does Shell's forecast differ so significantly from the IEA's?

## Climate commitments

- What is the temperature outcome of the LNG Outlook?
- What are the LNG portfolio's lifecycle emissions from 2025 to 2050? How will Shell reduce them?
- How will Shell ensure strategic consistency with the Paris goals, while “retiring” its 2035 target and providing little insight into its 2030 to 2050 strategy?

# Appendices

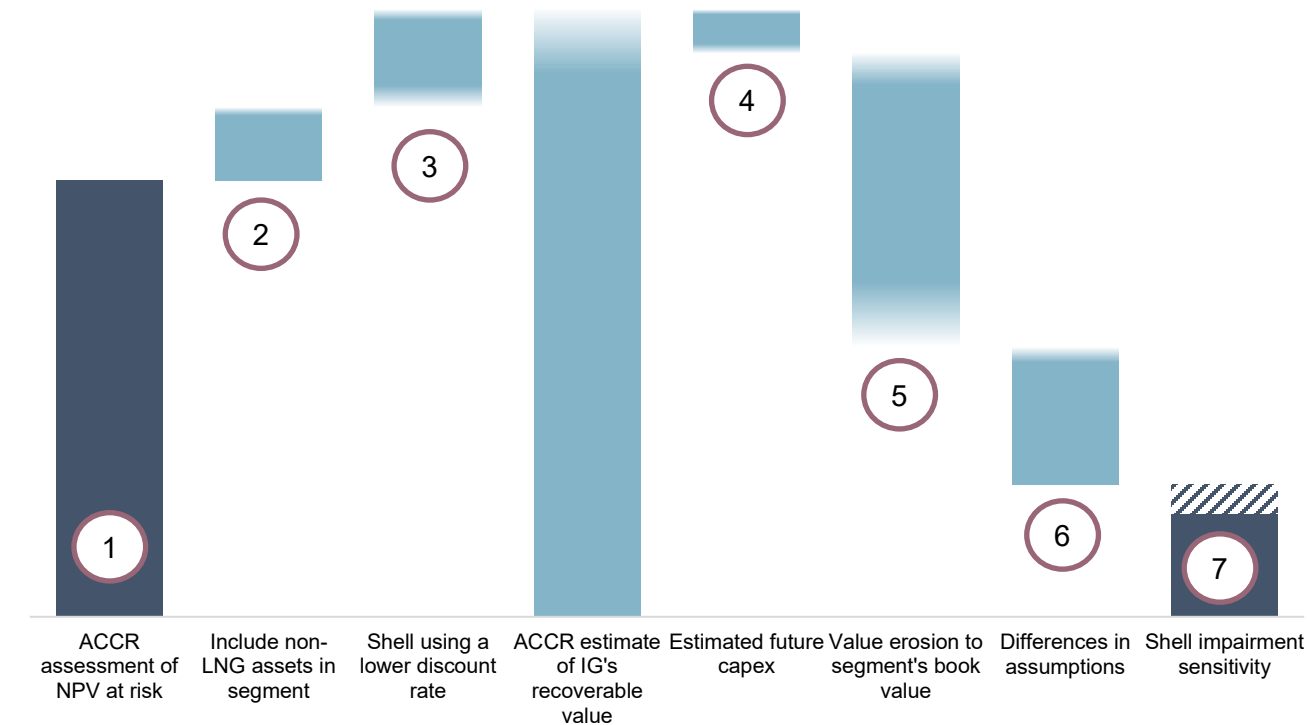
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# Appendix 1: Indicative reconciliation between ACCR's assessment of LNG price impacts and Shell's impairment disclosure

- 1 Our estimated impact of changing LNG prices from Rystad's base case to \$5/MBtu (LNG priced at parity with Asian renewable electricity costs).
- 2 Include non-LNG assets: We have data for Shell's LNG assets, but Shell's Integrated Gas segment includes other assets.
- 3 Shell uses a lower discount rate, conducting impairments with a 7.5% nominal discount rate. We assess Shell's value using a discount rate of 10% plus country risk premiums.
- 4 Impairments exclude pre-FID capital: If Shell continues to invest in LNG assets, then its value at risk increases.
- 5 Value erosion to segment's book value: Impairments are relative to book value – a measure of depreciated capital costs. Capital should only be allocated where it creates value, so the underlying (recoverable) value of an asset should exceed its book value. This additional value needs to be eroded before an impairment occurs.
- 6 Differences between the ACCR case and NZE: We note our case is built from Shell's Outlook, which assumes LNG will compete with emerging markets' renewables.
- 7 Shell disclosed a \$21-27 billion impairment sensitivity for its Integrated Gas segment under an NZE scenario.

## Reconciling ACCR's \$90 billion NPV risk to Shell's \$21-27 billion balance sheet impairment sensitivity



Source: Rystad Energy data and economic model, ACCR analysis



## Appendix 2: Shell has not materially responded to our criticisms of its 2024 LNG Outlook

Issue raised by ACCR	Relevant changes (if any) made to Shell's 2025 LNG Outlook
Shell misrepresented the IEA's Net Zero Emissions LNG demand projection	No response
Shell's LNG forecast exceeds every IEA scenario	Shell's 2025 Outlook does not include any IEA data
Shell misrepresented academic literature on the decarbonisation options for the Chinese steel sector	No response Shell's 2025 Outlook does not include any academic references
With more exposure to LNG prices than any other independent company, Shell is not an independent source of information	No response
LNG costs are too high to compete with renewables or coal power in emerging economies	No response Generic statements about LNG being reliable, etc are repeated
Shell's LNG forecast is less credible than the IEA's because it has been less responsive to material new market information, such as the Ukraine war	No response Shell's 2025 Outlook has a higher LNG demand profile, which is the opposite of what many market changes imply
Contracting activity is a weak indicator of future LNG consumption, where the purchasers are LNG traders, rather than LNG consumers	No response
Energy security concerns erode rather than stimulate LNG demand because it encourages countries to reduce import dependency	No response Generic statements about LNG being reliable, etc are repeated
Shell's liquefaction facilities have generated meagre returns	No response
Shell's unprecedented long position in the LNG market incentivises it to lobby for LNG demand, especially in emerging markets	No response

# Appendix 3: Shell does not explain why the demand drivers in its LNG Outlook introduction will increase LNG demand

The first substantive page of Shell’s 2025 LNG Outlook lists five drivers of LNG demand to 2040. There is little to no explanation of how these drivers will impact LNG demand at all, especially in 2040.

Claimed driver of LNG demand growth to 2040	Relevant content in the 2025 LNG Outlook	Additional context
“Traditional biomass, oil and coal use fall”	There is no information on any of these fuels.	<ul style="list-style-type: none"><li>• While Asian energy demand is expected to grow rapidly, LNG is an expensive fuel, suggesting that which suggests it is unlikely to grow rapidly in price-sensitive markets.</li><li>• The IEA, as well as our own research using BNEF data, confirms that LNG will struggle to compete on a cost basis (slide 25).</li></ul>
“Gas switching in the power sector”	The only mention of electricity is a graph of the Japanese grid to 2030, which shows a diminishing role for LNG; and in the United States, which does not consume LNG.	<ul style="list-style-type: none"><li>• All of the five scenarios modelled by the US Department of Energy concluded that higher US LNG production would increase global emissions because LNG displaces more renewables than coal.</li><li>• The IEA, as well as our own research, shows that LNG is much more expensive than renewables or coal (slide 25). It would be uneconomic for a country to use LNG when it could use renewables.</li></ul>
“Low-carbon gases”	<ul style="list-style-type: none"><li>• There is a bio-methane slide which shows a production forecast to 2030 and its potential in the shipping sector.</li><li>• There is a slide on liquefied synthetic gases, which explains how it could be produced, with no financial or market analysis.</li></ul>	<ul style="list-style-type: none"><li>• While bio-fuels are a credible option to decarbonise some sectors, including marine fuels, synthetic fuels seem unlikely to achieve scale.</li><li>• Shell’s 2024 ETP states that ‘synthetic fuels made from hydrogen can be up to eight times the cost’ of oil products and four times the cost of biofuels. Shell’s own hydrogen ambitions have been significantly downgraded in recent years (slide 26).</li></ul>

# Appendix 3: Shell does not explain why the demand drivers in its LNG Outlook introduction will increase LNG demand

Claimed driver of LNG demand growth to 2040	Relevant content in the 2025 LNG Outlook	Additional context
“Emissions reductions in heavy industry and transport”	<ul style="list-style-type: none"><li>Two slides on LNG as a marine fuel, including some information on emissions impacts</li><li>There is a single graph projecting that LNG-fuelled trucks will increase in China and India to 2030</li></ul>	<ul style="list-style-type: none"><li>LNG is a promising international marine fuel and Shell’s claims about strong growth in this market are credible.</li><li>China is the world’s largest LNG truck market, but it seems plausible that LNG trucks will be displaced by electric trucks, which have a lower total cost of ownership and are growing much more rapidly than LNG truck sales.<sup>1</sup> The scalability of LNG trucking remains in doubt in other countries.</li></ul>
	There is no explanation about why industrial LNG demand will increase, or what emissions impact that would have.	Shell’s 2024 Outlook cited a single example of industrial gas use. The example was a misquote of academic research into China’s steel sector and is not re-used in this year’s Outlook. <sup>2</sup>
“The impact of artificial intelligence”	The words ‘Data centres and AI’ are placed next to an icon of a digital brain. There is no discussion of how this will impact LNG demand.	Despite data centres being heavy electricity consumers that create issues for local grids, AI is unlikely to cause material growth in global energy demand, let alone LNG demand.
“Economic growth in Asia” <sup>3</sup>	<ul style="list-style-type: none"><li>Graphs of: Asian regasification capacity; Chinese and Indian residential gas connections and LNG trucks to 2030.</li><li>Changes in Indian and Chinese gas consumption in 2024, broken down by sector.</li></ul>	While Asian energy demand is expected to grow rapidly, LNG only supplies a portion of this demand. LNG is an expensive fuel, which suggests that it is unlikely to grow rapidly in price-sensitive markets.

1. BloombergNEF, Vehicle Total Cost of Ownership Model, v1.1.0.  
2. ACCR, [Shell’s LNG strategy: Overcooked?](#), slide 13.  
3. This growth driver was included in the LNG Outlook’s press release, but not the LNG Outlook itself.

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