

The impact of COVID-19 on oil and gas security

Purpose:

This 18th issue of the APEC Oil and Gas Security Studies (OGSS) series includes a review of the impact of COVID-19 on oil and gas security in APEC throughout the two years of the pandemic. It contextualises this impact within the overarching oil and gas market trends that existed prior to the pandemic, were shaped by the pandemic, and will continue to impact oil and gas security after it subsides. The report concludes with recommendations for improving oil and gas security in the APEC region, and we are confident that these recommendations are transferrable. The solutions brought forward in this report will serve to improve APEC oil and gas security as its members continue to combat COVID-19, navigate an elusive economic recovery, and embrace the next set of energy challenges.

Outline:

The report has six sections. The first section describes the scope of the study and provides a definition of oil and gas supply security. The second section details how the pandemic affected oil and gas demand through reduced economic activity and government-imposed mobility restrictions. The third section discusses the impact of COVID-19 on oil and gas supplies together with other factors that reduced supplies, including an investment climate that favors investor remuneration over supply growth; it also discusses the impact of COVID-19 on the development of LNG infrastructure. The fourth section analyses how COVID-19 recovery spending can improve APEC oil and gas security by illustrating the fiscal capacity of APEC members, tracing energy-related fiscal spending by sector, and drawing lessons from the energy sector impacts of government spending following the Great Financial Crisis. The fifth section builds on the conclusions of the preceding three sections to highlight the potential for future oil and gas disruptions in the APEC region and concludes with a call to resist energy subsidies as a solution to potential crises. The final section details 12 recommendations to minimise the vulnerabilities of oil and gas supply in APEC. The key findings and implications of the report are summarised below.

Key Findings:

COVID-19 caused an unprecedented, but temporary drop in oil consumption. APEC oil demand is reverting close to 2019 levels and should surpass them in the short term.

The COVID-19 pandemic was significantly disruptive for oil demand, causing a 20% APEC-wide demand drop during its onset. Despite the persistence of the virus, consumption is already rebounding past pre-virus levels in some economies and should surpass 2019 levels in 2022 enroute to growing 5% by 2020. However, the trajectory of oil demand is subject to the evolution of both the virus and mobility restrictions. While there is potential for the COVID-19 pandemic to alter the way APEC uses oil to fuel its economy, the aggregate impact on the role oil plays in APEC economies appears to be temporary.

The fall in natural gas demand in early 2020 is temporary and partly due to warmer weather. APEC gas demand is already setting records and will continue to grow.

APEC-wide gas consumption fell 4% during the onset of the pandemic, but due to the coincidence of warmer weather, it is difficult to tease out how much of this impact is attributable to COVID-19. Any impact of COVID-19 on gas use appears transitory, and the fundamentals that drove demand growth prior to the pandemic will continue into the medium term. Demand surpassed 2019 levels in June 2020, and is currently surging, sitting 14% above the pre-pandemic benchmark. APERC expects demand growth to require 40% more LNG imports into the region over the next five years.

COVID-19 is exacerbating the supply dampening effects of previously existing oil and gas investment trends.

APEC supply is largely determined by the actions of OPEC+ and investors in the North American market. The low profitability of publicly traded oil and gas producers over the past decade and shifting expectations of equity owners are increasing the cost of capital to fund supply growth. Even in the face of higher oil and gas prices, investors are prioritising the improvement of balance sheets and the diversion of cashflows to remuneration. The low prices emanating from the demand shock of COVID-19 and the Saudi-Russia price war accelerated this trend. APEC-OPEC+ dual members, particularly Russia, are also more committed to following OPEC+ guidelines to constrain supply following the significant economic costs of the recent price war. These constraints are binding oil production below pre-pandemic levels in some economies and could limit both oil and gas supply growth over the medium term.

With demand surging and supply constraints binding, energy security events are becoming increasingly likely, and are already occurring.

The unexpected and dramatic reductions in oil and gas consumption caused by COVID-19 drove oil and gas prices to very low levels. Lower prices and uncertainty about when demand would return dampened investment in the oil and gas sector, limiting the ability of producers to respond to rebounding demand. This temporary imbalance between demand and supply is increasing both price volatility and the likelihood of oil and gas supply disruptions, and both trends are challenging the affordability of supply.

For oil markets, the supply constraints binding North American producers are shifting the nexus of the marginal producer out of APEC and into less stable regions, increasing the risk of availability disruptions. Furthermore, supply and logistical disruptions are being exacerbated by the rising frequency of extreme weather events, which are challenging the delivery of energy to end-users when it is needed the most.

Reducing the impact of a potential supply shock to the pandemic recovery is paramount. One action APEC economies could take is targeting their COVID-19 recovery packages towards emerging low-carbon technologies and energy efficiency to help reduce import dependence in the mid to long term.

While APEC government support is helping oil and gas suppliers endure the pandemic, it is not increasing oil and gas supply nor is it improving energy security.

Government support has been instrumental in enabling oil and gas suppliers across APEC to endure the significant economic consequences of the pandemic. However, this fiscal response will do little to grow APEC oil and gas supply or enhance energy security. A little over 5% is funding oil and gas supply, and

most of that is financing the remuneration of debtors, equity holders and executives of companies, as opposed to funding the capital expenditures necessary to grow oil and gas supply. Furthermore, little pandemic spending is going towards the tried-and-true measures that can mitigate the impacts of oil and gas disruptions. Utilising fiscal firepower to invest in energy security, such as investing the storage and distribution facilities required to establish a functioning Strategic Petroleum Reserves (SPR), would help mitigate the impacts of future supply disruptions in many economies.

The tried-and-true methods are key to improving APEC oil supply security.

The usual measures of increasing oil stockpiles and building SPRs remain the surest way to reduce the impact of oil supply disruptions in the future. However, due to the large upfront capital costs and significant maintenance and operating requirements, SPRs remain an elusive solution for many economies. Leasing space or ticketing from existing SPRs remain viable alternatives to building SPRs. Leasing out space is a good way to reduce the large financing costs of SPRs. Mandating commercial coverage for significant oil-using facilities is another solution. While inventories certainly increased across APEC during the pandemic, much of the commercial inventories are back to pre-pandemic levels. Further investment and purchasing will be necessary to mitigate the impacts of a potential oil security shock in the future.

LNG reloading is an emerging tool to reduce the impacts of LNG disruptions.

While LNG re-exports are not new to the APEC region, APEC Asian LNG importers are increasingly implementing LNG re-loading capabilities to capitalise on arbitrage opportunities and alleviate the impact of LNG shortages during peak periods. The low LNG utilisation rate of regasification terminals by APEC LNG importers suggests room for further LNG re-loading within APEC. APEC LNG importers should examine the LNG re-loading potential at their existing regasification facilities and consider implementing re-loading capacity to its utmost potential and push to ensure that all future LNG regasification terminals are engineered to re-load LNG. The buildout of LNG re-loading can be encouraged by removing restrictive price restrictions in their economies and looking for collaborative financing opportunities across APEC members.

Shortcomings in APEC's gas supply chain are undermining its ability to deliver supply to consumers during peak periods, which is paramount for gas security.

While APEC gas supply is growing in aggregate to meet rising demand, the gas supply chain is sometimes unable to delivery gas to consumers when it is needed most. Extreme weather events exacerbate the infrastructure challenge. The Texas Deep Freeze in February 2021 demonstrates that the winterisation of the US gas supply chain would increase the reliability of APEC's gas supply going forward. While the summer months are typically reserved for routine maintenance in the Pacific basin LNG market, unplanned outages limited gas supply during this most competitive storage injection season in LNG's history. To minimize markets impacts during future storage builds, APEC LNG exporters should evaluate the feasibility of coordinating their outage and summer maintenance schedules.