Expert Commentary

The consequences of low oil prices on investments

Dr. Hussein Moghaddam
Senior Energy Forecast Analyst

15 April 2020

GECF Secretariat
Energy Economics and Forecasting Department

The consequences of low oil prices on investments

Dr. Hussein Moghaddam, Senior Energy Forecast Analyst, EEFD, GECF

Almost every day the number of countries imposing restrictions aimed at containing the outbreak of COVID-19 on their citizens' increases. These severe bans, alongside economic slowdown, have caused a large reduction in energy demand around the world. This has forced the largest energy consumers from such countries as China and India to declare force majeure clauses on their oil and gas contracts, in an attempt to protect their importing companies from fulfilling contractual agreements.

On Sunday, 12 April 2020, the 10th Extraordinary OPEC and non-OPEC Ministerial Meeting was held via videoconference, and the OPEC+ alliance agreed to cut production by 9.7 million barrels a day. Brent crude rises 4% in the volatile trading session after the deal.

The current low oil and gas prices - with Brent and WTI crude trading at $33.86 and $21.61 per barrel respectively, and natural gas Henry Hub trading at $1.66 per mmBtu on April 14 - have dealt a severe shock to the major oil and gas companies across the world.

It is necessary to take steps to sustain stable business operation and to remain resilient during this situation. A large number of oil and gas producers of all sizes have had no option other than to announce several radical cost-cutting policies on their capital and operational expenditures (CAPEX and OPEX) in response to the market downturn and to minimise the impact of the rapid decline in global oil and gas prices, adjusting and delaying investment plans and the sale of assets. The GECF Secretariat consistently monitors and assesses these market dynamics in order to evaluate supply chains and investment processes critical to GECF Member Countries (see Table 1).

Table 1. Some major oil and gas companies' actions to reduce operating and capital expenditures (alphabetical order)

Company	Cut in Operating and Capital Expenditures
Aker BP	The company CAPEX is expected to drop to $1.2bn from an estimated $1.5bn.
Apache	Reduced its 2020 capital investment plan to between of $600-700mn, from $1.6bn to $1.9bn.
Aramco	The company expects its capital spending for 2020 to be between $25bn and $30bn, compared to $32.8bn in 2019. CAPEX plans for 2021 and beyond are also under review.
ARC Resources	Will cut its capital budget by 45% to about C$300mn from initial C$500mn.
Beach Energy	Will cut its capital expenditure by 30% in the financial year 2020-2021 (July-June) relative to its prior planning. The capital expenditure for the year to June 2020 remains unchanged at A$875-950mn.
Birchcliff Energy	Will defer C$65mn of 2020 capital expenditures from a budget of C$340-360mn.
BP	Has slashed its capital expenditure plan for 2020 by 25% or a $1bn reduction to $12bn.
BW Energy	Will cut its 2020 capital expenditure by 50% from approximately $250mn to $125mn.
Cairn Energy	Has slashed its 2020 capital expenditure plan by 23%. CAPEX is now anticipated to be below $45mn. Exploration CAPEX will be reduced to $100mn from a forecast of $150mn.
Centrica	Total capital expenditure including upstream is now expected to be around £600mn, compared with around £800mn at the time of the preliminary results. Delaying £100mn of restructuring expenses. £204mn bonuses to management and non-customer-facing staff for 2019 have also been cancelled.
Chevron	Will cut $8bn of its capital and exploratory budgets in 2020, as below: • $2bn in upstream unconventionals operations, primarily in the Permian Basin. • $700mn in upstream projects and exploration. • $500mn in upstream base business in the US and international assets. • $800mn in downstream sectors.
Cimarex Energy	Expects to cut spending by 50% from its original plans to a new target of $1.25bn to $1.35bn.
ConocoPhillips	Will reduce its 2020 capital expenditure by $700mn, representing about a 10% decrease. It will also reduce its 2020 planned share repurchase programme to a quarterly run rate of $250mn beginning in Q2, from the previous run rate of $750mn. The combined moves are expected to reduce 2020 cash use by $2.2bn.
Continental Resources	Will reduce its 2020 capital expenditures by 55%, dropping it to $1.2bn, from the original budget of $2.65bn.
CNOOC	Will trim its annual investment by 10%-15% in 2020. The company will reduce losses at its money-losing firms by 5bn yuan ($710mn).
Devon Energy	Slashed its 2020 budget by $800mn to $1bn, down 45% from the original plan.
Ecopetrol	Cuts $478mn expenditure and a decrease in investments by $1.2bn to a range of $3.3bn to $4.3bn.
Energean Oil & Gas	Will reduce its investment by $155mn in 2020 CAPEX in Greece and Israel, as well as $140mn cut for its Egypt project.
Eni	Will cut its CAPEX by 25% or 2bn euros ($2.2bn) in 2020, from around 8bn euros ($8.64bn), and also will cut by around 2.5bn to 3bn euros in 2021. It also said it would be cutting its operating expenses in 2020 by around 400mn euros.
EnQuest	Will cut its operating expenditure by 30% to $375mn and investment will be lowered by $80mn to $150mn.
EOG	Is cutting CAPEX spending for 2020 by 31% to a range of $4.3bn to $4.7bn.
Equinor	The company will slash its organic capital expenditure budget for 2020 by around 20% to around $8.5bn, from $10-11bn, as below: • Reducing exploration from $1.4bn to $1bn. (Its exploration spend in 2019 totalled $1.85bn). • Reducing its operating costs by $700mn.
ExxonMobil	It would cut its planned capital expenditure by 30% from $33bn to $23bn, and also target a 15% reduction in cash operating expenses.

Genel Energy	Will reduce its capital expenditure to $60mn, with an expectation that it will be around $100mn in 2020.
Hess Corporation	Has revised down its capital and exploratory budget to $2.2bn for 2020, a $800mn reduction from the previous budget of $3bn.
Hoegh LNG	Has a cost-saving plan on overhead and vessel operating costs, targeting $9-$11mn in savings for 2020. Also has decided to suspend dividends and bonus scheme.
Husky Energy	Has cut its upstream CAPEX budget by 33% or C$900mn ($650mn) to C$1.75-1.9bn ($1.25-1.36bn), from C$2.625-2.8bn.
Imperial Oil	Would cut its spending this year by C$1bn (US$704mn) as below: • Capital spending will be reduced by 30%, or C$500mn, to between C$1.1bn and C$1.6bn. • Operating expenses by C$500mn from 2019 levels.
Inpex Corporation	The company is looking to optimise operations, review investment plans and cut costs, without giving any details.
Kosmos Energy	Will slash its capital expenditure by around 30% to $200-225mn, from its initial estimates of $325mn to $375mn.
Lundin Petroleum	Will cut its planned costs by $170mn or around 13%.
Maersk Drilling	The company revised down its financial guidance to $325-375mn from $400-450m. The guidance for capital expenditures remains unchanged at $50-200mn.
Marathon	Cuts its capital expenditures of $500mn or about 30%.
Murphy Oil Corporation	The company revised down its 2020 capital budget by 35%, which is about $500mn equates to $950mn, from the previous budget of $1.4bn to $1.5bn.
Noble Energy	Has slashed its planned capital expenditure by nearly 30% or $550mn, to $1.1-1.3bn.
Oil Search	Has cut its investments in 2020 by 38% to $440-530mn, down from $710-845mn.
OMV	The board has approved an action plan of more than €4bn for 2020, which includes: • Cut of around €500mn in organic investments. • Cut of around €200mn against last year's operating and exploration expenditure. • Deferred the payment for the 39% stake in petrochemicals firm Borealis, meaning the final €2bn payment will now only be due at the end of 2021.
ONEOK	Cuts its capital expenditures of $500mn or about 30%.
Origin Energy	Is targeting a 25-30% reduction, which is about A$300-400mn in capital expenditure in the 12 months to June 30, 2021 (FY2021) compared with previous FY2020 guidance of A$530-580mn (US$320-350mn).
Ovintiv	Has cut its capital budget by about $300mn and its full-year cash costs by around $100mn from earlier projected $2.7bn capital program for 2020.
Oz Santos	Has cut a 38% or $550mn in 2020 capital expenditure.
PDC Energy	Is cutting its annual $1.0bn to $1.1bn, plus capital investment budget by 20–25%.
Pembina Pipeline	The company will slash its capital spending plan by almost half, cutting between C$900mn and C$1.1bn ($617-755mn) to a level of C$1.2-1.4bn.
Petrobras	Has decided to cut planned investments for 2020 from US$12bn to US$8.5bn, idling some platforms, delaying exploratory activities and postponing a dividend payment. It is also cutting $2bn from operations.
Plains All American	Will cut its capital spending by 47% down to $1.55bn. That reduction includes the $600mn saved on the deferral until at least 2021. The company also is cutting its distribution payouts to investors by 50%.
Premier Oil	Premier expects a $100mn reduction in planned 2020 capital spending.
QEP	QEP's capital budget for 2020 and 2021 will be reduced by more than $300mn or nearly 30%. Previous 2020 CAPEX had been $225mn.
Respol	Has reduced its cash investments by 26% or about $1bn. The company will further seek to reduce operating costs by more than $385mn.
RockRose Energy	Its capital expenditure in 2020 will be reduced by at least $80mn, down from the original plan of around $200mn.
Schlumberger	Will cut its spending by 30% this year from last year's levels, without giving any details.
Seven Generations Energy	Is reducing its 2020 capital budget by 18%, from C$1.1bn to C$900mn.
Shell	The Anglo-Dutch major Shell has scaled back its capital expenditure plan for 2020 by 20% to $20bn or less, as below:

	• Operating costs reduced by $3-4bn per annum over the next 12 months compared to 2019 levels. • Cash capital expenditure lowered to $20bn or below for 2020 from a planned level of around $25bn. • It expected to book between $400mn and $800mn in post-tax impairment charges in its Q1 of 2020.
Sinopec	Will trim capital expenditures in 2020 by 2.5% and plans to spend 143.4bn yuan ($20.21bn) as below: • Refining units will reduce spending by 9bn yuan from 2019 level to 22.4bn yuan. • Sales division down by 7.6bn yuan. However, capital expenditures for its petrochemical sector will increase by 9.9bn yuan to 32.3bn yuan.
Sonatrach	Will halve its planned investments to $7bn, as well as cuts its public spending by 30%.
Suncor Energy	Will cut C$1.5bn (US$1.03bn) from its 2020 capital expenditures budget, bringing it between C$3.9bn and C$4.5bn.
Talos Energy	Announced $340mn expense cuts.
TechnipFMC	Will cut its 2020 capital expenditure plan by 30% to $300mn. $100mn in annualised cost reductions for surface technologies. $30mn in annualised cost reductions to corporate expenses.
Total	The company will shave more than $3bn off its planned investments in 2020 to under $15bn. Its operating costs will reduce by $800mn from 2019 level.
Tullow Oil	The group is being restructured as below: • 35% of the employees will leave for a cost reduction of about $200mn. • 45% reduction in the exploration budget. • 30% cut in capital expenditure to $350mn.
Vermilion Energy	Will reduce its 2020 capital budget by C$80-100mn, to C$350-370mn.
Viva Energy	The company slashed its 2020 capital expenditure to between A$60- A$80mn, below from its earlier of A$140-$160mn. Viva Energy also deferred A$680mn share buyback.
Whiting Petroleum Corp	• Mid-March announced that will cut its 2020 CAPEX by 30% or $185mn, dropping its total capital budget to between $400-435mn. • 01 April became first major bankruptcy of oil-price crash and filed for Chapter 11.
Wintershall	Will cut its 2020 investment by a fifth to 1.2bn to 1.5bn euros and suspend its dividend until further notice.
Woodside	Has announced an approximate reduction of 50% in total expenditure for 2020 to $2.4bn as below: • An approximately $100mn reduction in operating expenditure. • 60% reduction in investment expenditure to $1.7–1.9bn. • Reducing overall exploration expenditure by about 50% to $75mn.

Source: Natural Gas World, Hellenic Shipping News, Platts, Williston Herald, Reuters, Journal of Petroleum Technology (As of 10.04.2020)

As indicated in Table 1, many oil and gas upstream and midstream companies have decided to slash their capital expenditures for growth projects to preserve cash. As reported by Global Data[1], over $50bn in capital expenditure are being slashed by oil and gas companies until the end of March 2020. According to IHS Herold calculations, North American E&P companies plan to reduce spending in 2020 by 36% or $24.4bn relative to 2019 levels[2].

Moreover, some companies had to cut or suspend their share buy-back and dividend pay-out plans, and general overhead costs to bolster cash reserves and subsequently should limit

[1] https://www.hellenicshippingnews.com/over-us50bn-in-capital-expenditure-cuts-announced-as-oil-and-gas-companies-grapple-with-covid-19-and-oil-price-war-says-globaldata/
[2] https://news.ihsmarkit.com/prviewer/release_only/slug/2020-04-08-the-big-cut-36-percent-spending-cut-for-north-american-e-p-companies-in-2020

the negative credit rating actions. Among recent expense reductions, giant companies such as Aramco, BP, Chevron, ConocoPhillips, Eni, Equinor, ExxonMobil, OMV, Petrobras, Schlumberger, Shell, Total, and Woodside have also announced budget cuts by up to 30%.

The low oil and gas prices environment, which is a significant challenge for the industries, will lead companies to postpone their projects if prolonged. Although the Final Investment Decisions (FIDs) for the projects are dependent on demand at least over the next five years, it is not clear how long the current low prices, and continues decline in demand will last.

Investment decisions and economics of LNG projects across the world would be affected by declining oil prices since most of the long-term LNG contracts are linked to oil prices. On this matter, thus far the majority of FIDs planned for 2020 and to some extend for 2021, will not take place and hence oil and gas projects that were supposed to start up in 2023-2025 are being delayed.

The impact on LNG projects

2019 was a record year for LNG FIDs, with six projects totalling nearly 71 mtpa in new capacity being approved and sanctioned in the US, Mozambique, Russia and Nigeria, all aiming to come online between 2023 and 2025, reflecting confidence about mid- to long-term LNG demand growth.

Table 2. LNG projects taking FIDs in 2019

Country	Project	Operator	Volume (mtpa)	Startup
Mozambique	Mozambique LNG-1	Anadarko	12.88	2024
Nigeria	NLNG	NNPC	7.6	2024
Russia	Arctic LNG-2	Novatek	19.8	2023
United States	Golden Pass	EXXON, QP	15.6	2025
United States	Sabine Pass T6	Cheniere	4.85	2023
United States	Calcasieu Pass	Venture Global	10.08	2023
Total			**70.81**	

Source: GECF Secretariat based on data from the GECF GGM and Wood Mackenzie

About 239 mtpa capacity was planned for taken FIDs in 2020 (see Table 3). Mega-LNG projects, including but not limited to Mozambique's Rovuma (15.2 mtpa), Qatar's North Field Expansion (49 mtpa), the US Louisiana Driftwood and Lake Charles (27.6 mtpa and 16.45 mtpa), and Texas Rio Grande (27 mtpa) LNG projects, before crash in oil prices were in advanced stages of securing FIDs.

Australian mega-LNG projects have taken the most drastic reduction measures. It is expected that major projects in the country will be pushed back, since it is risky to finance projects without offtake commitments. LNG projects were targeting FIDs worth over $50bn between 2020 and 2025. These include the Pluto expansion and backfill projects such as Browse, Scarborough, Barossa, Equus, Crux and Clio-Acme. Just two Scarborough and Barossa LNG projects, worth a combined $22bn, were targeting FID in 2020. But due to the global economic downturn, Australia's biggest LNG exporter, Woodside, is postponing FID on its Scarborough Pluto Train 2 and Browse LNG projects[3].

In addition, Shell and its joint venture partners (Osaka Gas and a unit of Seven Group Holdings) have decided to delay a FID on the Crux gas field project[4]. The project has been awaiting development to supply backfill gas to the Prelude FLNG facility off northwest Australia, which is the world's biggest FLNG platform.

In the US, Shell is also withdrawing from the three trains – a 16.45 mtpa – of the Lake Charles LNG project in Louisiana[5]. Oil and gas producer Devon Energy also delays its Eagle Ford shale operation in southwest Texas[6].

ExxonMobil has pushed back for the second time from its plan to take a FID on the Rovuma LNG project[7], and Qatar Petroleum announced that the company is not scaling back a plan to build six new LNG trains. However, the start of production from its new gas facilities will be postponed until 2025[8].

Table 3. LNG projects awaiting FIDs in 2020, but most FIDs pushed back

Country	Project	Original FID	New FID	Operator	Volume (mtpa)	Startup
Australia	Pluto expansion T2	2020	2021	Woodside	4.3	2024
Australia	Browse LNG T1-T3	2020	na	Woodside	11.7	2024-2025
Canada	Woodfibre	2020	2021	Pacific Oil & Gas	2.1	2024
Canada	Goldboro LNG	2020	na	Pieridae Energy	10	2023
Mauritania-Senegal	Greater Tortue Phase 2	2020	2022	BP	3.8	2025
Mauritania-Senegal	Greater Tortue Phase 3	2020	2023	BP	3.8	2026
Mexico	Energia Costa Azul	1Q 2020	2Q 2020	Sempra	2.4	2024
Mozambique	Rovuma LNG	2020	2021	ExxonMobil	15.2	2025
Papua New Guinea	PNG LNG expansion	2020-2021	na	ExxonMobil	2.7	2024
Papua New Guinea	Papua LNG	2020-2021	na	Total	5.4	2024
Qatar	Qatar expansion	2020-2021	3-6 Month delay	Qatar Petroleum	49	2025-2024
Russia	Obskiy LNG	1H 2020	2H 2020	Novatek	5	2022-2023

[3] https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/032720-woodside-defers-fids-on-australian-lng-projects-on-economy-covid19
[4] https://energy.economictimes.indiatimes.com/news/oil-and-gas/shell-and-partners-delay-decision-on-australias-crux-gas-project/75024138
[5] https://www.naturalgasworld.com/shell-withdraws-from-us-lng-project-77645
[6] https://energy.economictimes.indiatimes.com/news/oil-and-gas/devon-energy-further-cuts-2020-capital-spending-by-300-mln/74894004
[7] https://www.energyvoice.com/oilandgas/africa/233338/exxon-pushes-back-rovuma-lng-decision-again/
[8] Qatar plans to increase its LNG production to 126 mtpa by 2027. The company is not scaling back a plan to build six new LNG trains. *For more information read:* https://thepeninsulaqatar.com/article/07/04/2020/QP-to-postpone-start-of-production-from-new-gas-facilities-until-2025

United States	Corpus Christi phase 3	2020	na	Cheniere	10	2024
United States	Rio Grande LNG	2020	2021	NextDecade	27	2024
United States	Port Arthur	2020	na	Sempra	13.5	2024
United States	Driftwood LNG	2020	2023	Tellurian	27.6	2024
United States	Freeport T4	2020	na	Freeport LNG	4.5	2024
United States	Plaquemines LNG	2020	na	Venture Global	10	2024
United States	Lake Charles	2020	2021	Energy Transfer	16.45	2025
United States	Annova LNG	2020	na	Excelon	6	2024
United States	Commonwealth LNG	2021	na	Commonwealth	8.4	2024
Total					**238.85**	

Source: GECF Secretariat based on data from the GECF GGM, Hellenic Shipping News, Poten & Partners, and Natural Gas World

Sufficient investment in the development of natural gas is necessary

According to the GECF Global Gas Model (GGM), global LNG demand reached up to about 355 mt last year, and demand will increase to about 470 mt in 2025. The Asian LNG market is expected to remain the largest regional market. China has imported slightly more than 60 mt LNG in 2019, after Japan with 77.3 mt LNG. In 2025, China and Japan will be importing about 87 mt LNG and 72 mt LNG, respectively.

Investment delays in LNG projects could limit liquefaction capacity and create a significant shortfall in production levels over the medium-term. LNG demand growth outpaces liquefaction capacity, and delays in project sanctioning will affect the development of LNG regasification infrastructure and LNG to power plant projects, especially in Asia.

Sufficient investments through the entire gas value chain are necessary to sustain the security of demand and supply of natural gas. Security of supply has mutual benefits for both producers and consumers. Long-term supply contracts provide buyers with increased energy security and minimize risk for producers when making large scale, long-term investment decisions. Thus far, oil and hybrid pricing mechanisms served over imported volumes of natural gas on the global markets. Oil-indexation supports protection for natural gas and LNG exporters.

That being said, barriers impeding natural gas to play its role in the transition to sustainable energy systems, such as several banks and institutions (e.g. the World Bank and the European Investment Bank) decision to stop financing oil and gas projects by 2021, is not only be considered as an additional risk for the gas industry but also will hurt the commitments of support the UN's Sustainable Development Goals, in particular Goal #7, as an environmentally friendly, affordable, reliable, accessible and flexible natural resource for ensuring economic development and social progress.

Policies are needed to attract investments in energy access. As stated in the 5th Declaration Summit of Heads of State and Governments in Malabo, Equatorial Guinea, the GECF Member Countries support the fundamental role of long-term gas contracts, as well as gas pricing based on oil-indexation, to ensure stable investment in the development of natural gas resources.