Newsletter | April 2023 | Issue #40

Al Majal Updates

Al Majal Technical Services (AMTS) Hosts Labor Day Breakfast

In honor of Labor Day, Al Majal Technical Services organized a delicious Iraqi breakfast at the Al Majal Business Park in North Rumailah. The team building event was held to recognize the dedication and contributions of our team members and to provide a relaxed and informal setting for team members from our group's different departments and various joint venture companies to socialize and connect. The breakfast featured a spread of Iraqi cuisine, where everyone enjoyed trying new and different dishes. The breakfast was a great success, and we look forward to organizing more events like this in the future!

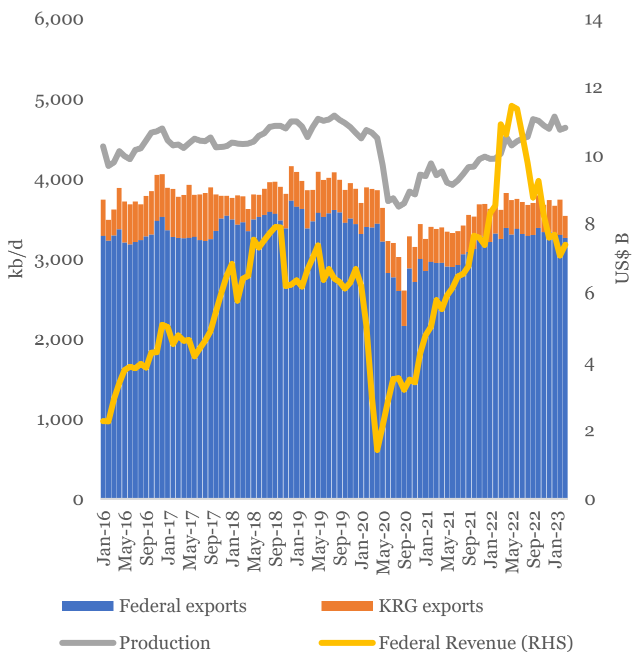

Al Majal Business Park (AMBP) Celebrates Eid Al-Fitr

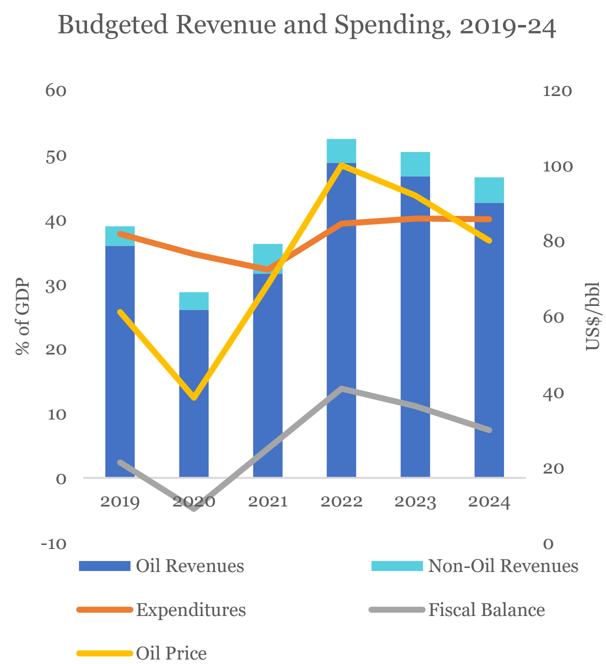
Marking the end of the holy month of Ramadan, Al Majal Business Park hosted a joyous Eid celebration dinner at both Al Majal Business Parks in North Rumaila and Burjessia. The evening was celebrated with a buffet featuring a delectable array of traditional Arabic dishes that added to the festive atmosphere. At AMBP, we are proud to host events that bring our community together to express our gratitude and celebrate our shared values. We are always grateful for the hard work and dedication of our staff who go above and beyond to ensure that our events are a resounding success, and we look forward to hosting more events that contribute to a positive and enjoyable work environment.

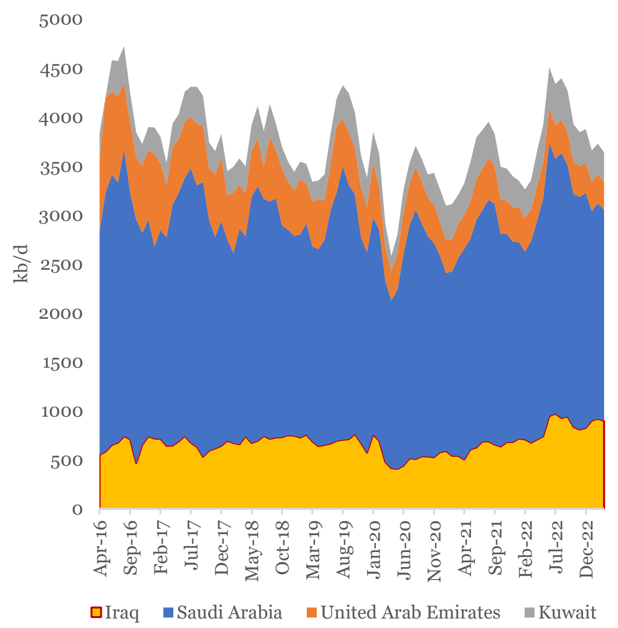
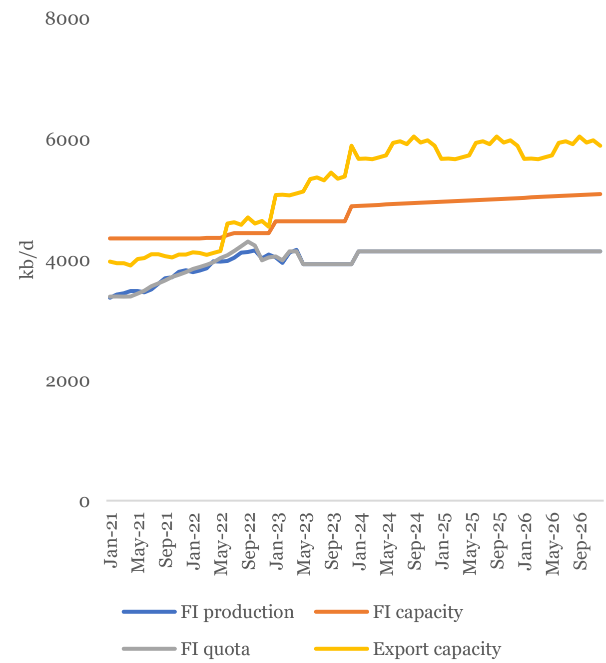
Al Majal’s Oil & Gas Roundup in Collaboration with Qamar Energy

Latest in the Iraqi & Global Energy Markets

Iraq Export Revenue vs. Budgeted Revenues and Spending
(Qamar Energy Research, World Bank, Iraq Oil Report)





Iraq domestic oil products consumption set to rise to meet rising power demand	Iraq's new OPEC+ quota and rising refining capacity will drive production down in 2023
	

The Latest Developments in The Iraqi Energy Markets Are Summarised in The Table Below.

Iraq Key Events Scorecard, April 2023				
Oil & Gas	Oil production	●	↑	• Iraq's nationwide crude oil production has dipped over the past two months to just over 4.6 Mb/d, a decline of about 150 kb/d from January. Production averaged 4.61 Mb/d in February and 4.63 Mb/d in March. For the first quarter of 2023, national production averaged 4.67 million bpd, unchanged from the prior quarter. • Output is likely to fall further in April and beyond. Iraq's northern pipeline has been offline since late March, taking down almost half a million barrels of oil exports (475 kb/d) and squeezing production, which is likely to remain curtailed anyway as Iraq committed to a lower OPEC+ quota. Iraq joined eight other OPEC+ producers in a decision on April 2 to make a voluntary cut totalling 1.16 Mb/d from May to the end of the

			year. Iraq’s share of the OPEC cuts is 211 kb/d, bringing the country’s overall quota down from 4.431 Mb/d to 4.22 Mb/d. • The federal government’s North Oil Company (NOC), which had been pumping about 75 kb/d into the northern pipeline system, has been able to divert most of its production to local refineries and storage; only about 10 kb/d has been shut in. • Production from southern fields increased slightly in March to 4.21 Mb/d from 4.18 Mb/d in February. The increase came despite a shutdown for maintenance work on an oil-gas separation unit at the Rumaila oil field, Iraq’s biggest producer. • Basra’s West Qurna-1 produced 479 kb/d in March, down from 531 kb/d in February. This was due to a five-day shutdown of gas-oil separation plants and all connected wells from March 16. The work was to allow connection of new storage tanks and a new gas flaring column to be added to the facility. Rising production from West Qurna-2 (WQ2), where maintenance was completed on Feb. 26, more than compensated for a combined 85 kb/d decline from Rumaila and West Qurna-1. Output from WQ2, operated by Russia’s Lukoil, was up almost 100 kb/d in March at 484 kb/d compared with 386 kb/d in February. • Production at Majnoon has been erratic and needs water injection to stabilize output. Majnoon produced 67,000 bpd in March, up from 54,000 bpd in February. A pilot water injection facility is due to be operational in May, BOC said in a statement. The 80 kb/d water injection project involves four experimental injection sites spread out over the Mishrif, Hartha, and Zubair formations. An 11-kilometre long, 14-inch diameter pipeline will bring water from a treatment plant to the injection sites. • Iraq has significant spare capacity from other fields, including Rumaila which has been producing at more than 100 kb/d below capacity in January; Majnoon, Luhais, Nahr Bin Omar, Tuba and Ratawi have produced a combined 96 kb/d, more than 400 kb/d below their capacity. With Turkey’s response to the new Court of Arbitration ruling shutting down northern exports, including 75 kb/d of federal exports, Iraq is likely to ramp up production from these fields to offset potential KRG export loss in March and April, until a tripartite agreement is reached to restart exports to Ceyhan.
Oil exports	●	↑	• Iraq’s nationwide oil sales fell sharply in March to 3.534 Mb/d from 3.738 Mb/d in February, as the shutdown of the pipeline through

			Turkey knocked out nearly half a million barrels per day of exports in the final week of the month. All of the KRG's exports flow through the northern pipeline system, so the outage has hit its independent oil sales the hardest: they averaged 279 kb/d in March, according to Oil Ministry data, compared with 443 kb/d in February. IOCs in the Kurdistan region have been forced to shut down production due to lack of sufficient storage. • In March, Federal exports to Ceyhan fell to 56 kb/d. Since the pipeline outage, NOC has been forced to shut down about 40 kb/d of production from Kirkuk-area fields. Federal exports through the southern Basra Gulf were a slightly higher in March at 3.190 Mb/d over 3.184 Mb/d in the shorter month of February — but not high enough to offset losses in the north. Overall federal exports declined by 40,000 bpd. • The exports decline in March pulled down Iraq's nationwide average sales in Q1 2023 to 3.64 Mb/d, compared with 3.72 Mb/d in Q4 2022. Federal oil revenues increased slightly despite decreased volumes and prices, reaching US$ 7.404 B, as there are more days in the month of March than February. The KRG's sales revenues fell to US$ 540 M in March, down from US$ 826 M in February. • It remains unclear when Iraq's northern pipeline will reopen. Iraqi PM al-Sudani and KRG PM Barzani struck a framework agreement in Baghdad on April 4 outlining a deal for export cooperation, but implementation depends on working out technical details around how SOMO will take responsibility for the sale of KRG-produced oil and how revenue will flow to the KRG. • Turkey is also holding off on re-opening the pipeline until it resolves the second part of the arbitration case, covering damages for the 2019-23 period, where its potential liability is greater.

Factors affecting exports		↓	• Federal Iraq:
			  ○ The new ruling affects federal Iraq's exports through the pipeline to Ceyhan, which average around 75 kb/d;
			  ○ Western sanctions on Russian and Iranian oil have channelled cheap fuel to Asia, eroding a decades-long trend in which the continent paid more for energy than Europe. India's imports of Russian crude touched a new high of 1.64 Mb/d in March and is now double the purchases from Iraq – the country's traditional top oil supplier. Saudi Arabia was India's second largest supplier in

March, selling almost 1 Mb/d, followed by Iraq, the UAE and the US;

  - Iraq's overall exports are still below the volumes achieved between 2016 and 2019, averaging over 4 Mb/d. The country's export capacity expansion is still work in progress. Iraq plans to expand capacity from its southern ports from 2023 to add a total of 1-1.5 Mb/d by 2025. This includes rehabilitating the southern Khor Al Amaya port and marine pipelines. Southern ports' export capacity will increase by 150-250 kb/d starting 2023. Beginning 2022, Iraq installed new pumps at Basrah Oil Terminal, which would facilitate up to 250 kb/d, taking export capacity to 3.5 Mb/d. Sealine 3, with a capacity of 700 kb/d, is under construction and expected to come online by 2023. It will be the link between the new, fifth single mooring point and the Basra Oil Terminal. Two other pipelines are slated to replace existing and outdated pipelines by 2024;

- In the Kurdistan region of Iraq:
  - The new ruling affects the KRG the most; oil sales provided the government with its single largest source of revenue which averaged over US$ 1 B per month in 2022, thanks to high oil prices. The KRG's independent exports were not only benefiting the Kurdistan region but also Baghdad, since they provided a rationale to withhold monthly federal budget transfers to the KRG. In fact, a no-deal would require Baghdad to assume greater responsibility for funding the KRG and it might eventually become a target for creditors, which loaned billions of dollars to the KRG over the past decade.
  - Natural decline is threatening the KRG's oil production and exports. Production at KRG-controlled oilfields has been declining steadily y-o-y since hitting 484 kb/d in 2019. Output fell for a third year in a row in 2022, averaging 438 kb/d. There has been little progress on new projects, with the new Sarta field disappointing, and Baeshiqa only producing small amounts so far.
  - International Oil Companies (IOCs) operating in Kurdistan warn that the downtrend could continue if the government doesn't improve its payment policies. Delayed payments

			are likely to lead IOCs to resort to potential reductions in their work programme along with investment cutbacks. ◦ In addition, the Ministry of Natural Resources made unilateral policy changes that effectively reduce profits for IOCs, as it began imposing higher pipeline fees on IOCs in February and updated the oil price in September 2022, which IOCs use to calculate their invoices. They had been calculating their invoices using a formula pegged to Brent benchmark prices, protecting them from fluctuations in the KBT discount. The new pricing policy would cause the KRG to calculate repayments based on the realised price of KBT, shifting the burden of price weakness onto the companies.
TotalEnergies GGIP mega deal has been sealed; Qatar to farm in	●	↑	• The French giant struck a deal with Iraq's government that put to rest a dispute over state participation in the gas portion of the deal. Iraqi oil ministry subsidiary Basrah Oil Company (BOC) will take a 30% stake, instead of the previously demanded 40%, leaving Total with the lion's share of 45% at the Gas Growth Integrated Project (GGIP). The new terms were approved by Iraq's cabinet on 4 April and now await only final sign-off by all parties. • On April 5, TotalEnergies said that "in agreement with the Iraqi government" Qatari state firm QatarEnergy will farm in for the final 25%. The French and Qatari firms are long-term partners. QE has awarded sizeable shares to Total in its LNG expansion projects, and are partners in multiple projects across the world including Namibia and now Mauritania, in line with QE's ambitions to transform itself into a major international player.
Akkas and Mansuriya back on the table	●	↑	• Iraq continues to flare some 50% of its 3 Bcf/d wellhead gas output and as a result is reliant on costly and unreliable imports from Iran. Following years of delay and recurring disagreements with operators, Iraq's Oil Ministry plans once again to offer the 5.6 Tcf Akkas and 4.5 Tcf Mansuriya non-associated gas fields to investors. The fields were first awarded in 2010 after Iraq's third licensing round (LR3) but development was derailed by the rise of the Islamic State (IS) terrorist group. • Despite saying that there are "ongoing talks" with an unnamed firm, the minister says "if talks do not succeed" then Mansuriya will be "re-offered not alone, but as part of a supplementary annex" to the recently ratified fifth licensing round (LR5). This would include the four remaining

			unawarded LR5 blocks, presumably: Zarbatia, Shihabi, Jebel Sanam and Fao. • Meanwhile, a 23 March Iraqi government press release says the Council of Ministers on 20 March approved a “settlement” between Midland Oil C. (MOC) and operator Kogas under which the Korean firm will receive “$49mn in kind [crude oil].” SOMO is mandated to deliver the ‘payment’ – an implied 650,000 barrels at current prices. • The Council also mandated the Oil Ministry to enter a one-year “settlement agreement” with Kogas under which the latter “undertakes to transfer all of its contractual rights and obligations to a company or consortium of international companies qualified in accordance with the standards of the Ministry of Oil.
Karbala Refinery ramps up to full capacity by July		↑	• The 140 kb/d greenfield Karbala refinery is providing the first significant modern addition to Iraq’s dilapidated refining fleet since at least the 1980s. Nine-years after its 2014 award to a consortium led by Korea’s Hyundai Engineering, the plant began commercial operations earlier this month (April). • Full capacity is targeted by July, and oil minister Hayan Abdulghani says that the US$ 6 B refinery’s gasoline and middle distillate output will help Iraq slash its fuel import bill. Soaring prices pushed the tab up to a record US$ 5.3 B last year. Abdulghani hopes that Karbala will bring this down to just US$ 500 M-US$ 1 B backed up in part by lower oil prices, though the net gains to Iraq will be substantially lower given that exports of crude as well as low-value naphtha are set to fall as the refinery ramps up. • While the new Iraq OPEC+ quota is likely to impact exports the most, it might also result in a modest reduction in refining runs , although as Iraq’s most advanced and valuable refinery, Karbala will likely be spared from any cuts.
Halfaya Gas project to come online by 2024		↑	• The first stage of a 300 Mcf/d gas processing facility at the Halfaya oil field is now expected to come online ahead of schedule by early 2024, in a development that will enable Iraq to use more of its gas assets for much-needed electricity generation. • The project is being built by Chinese state firm China Petroleum Engineering & Construction Corporation (CPECC) on behalf of Halfaya field operator PetroChina, the listed arm of the state-owned China National Petroleum Corporation (CNPC).

				• Current progress at the project, also known as the Gas Processing Project (GPP), is estimated at 75%. Some GPP gas will fuel the 840 MW Missan greenfield CCGT power plant inaugurated last year, whilst parallel works to connect through a pipeline to Basra are also underway. Missan Oil Company (MOC) is also working on expanding its loading facilities for LPG trucks to 2-2.5 kt/d.
Political outlook	Iraq wins arbitration case against Turkey		↓	• The long-anticipated ruling represents the most significant blow to the KRG's aspirations for autonomous control of its oil sector. This is raising urgent questions on how IOCs in Kurdistan will be able to continue producing and selling the 400 kb/d of crude they had been pumping to Turkey now that northern oil exports were shut down following the International Court of Arbitration's ruling. Federal Iraq's exports through the pipeline, averaging around 75 kb/d, have also been closed off. • Companies in Kurdistan have had to shut in production, starting with Canadian-based Forza with 13.7 kb/d from its Hawler licence. HKN of the US said it would shut down its 43,000 bpd within a week; DNO of Norway began closing in the 107 kb/d Tawke and Peshkabir fields on 30 March. UK-listed Genel had about a week's available storage at Sarta (4710 b/d) and three weeks at Taq Taq (4490 b/d), and Gulf Keystone reported it would have to suspend its 55 kb/d output by about 10 April. The story is probably similar at other operators who have not yet made announcements. Privately-owned KAR Group, which runs the region's biggest producing fields, Khurmala, has cut back its usual 135 kb/d output to 100 kb/d, which is provided to local refineries and power plants. • Kurdistan's refineries have nameplate capacity of about 230 kb/d and receive their crude from federal Iraq and from fields operated by the de facto Kurdish administration of north-east Syria. So, Kurdistan could potentially switch about half its production to its domestic refineries. Most of the northern federal oil output has been diverted to local refineries too. Baghdad could, within the overall national OPEC+ quota, increase its own production and probably make up most of the lost output. Its task is made easier by the additional OPEC+ cuts announced on 3 April, of which Iraq shoulders 211 kb/d. • A successful deal would require all three parties – Baghdad, Erbil and Ankara – to restart the export pipeline, with Turkey likely to want assurances it will not incur further liabilities. Early April, Iraqi Prime Minister Mohammed Shia al-Sudani and KRG Prime Minister Masrour Barzani struck a framework agreement for restarting exports, but the

two sides have not implemented the technical agreements required for exports to restart. Turkey sees things differently and is holding off on re-opening the pipeline which connects to its Ceyhan export terminal as it seeks reassurances from Baghdad over further legal action. As a result, the shut-down has dragged on for a fourth week. It may be further delayed given that Turkey faces key presidential elections on 14 May and a likely run-off on 28 May, during which time President Erdoğan's team will be preoccupied.

Very positive · Positive · Neutral · Negative · Very negative · Improvement in last month · No change · Deterioration in last month

OPEC expects 2023 demand to remain unchanged from last month's assessment at 2.3 Mb/d. OPEC's forecast reflects a revision lower in the OECD America and Europe, but an upward revision in China with kerosene and gasoline leading demand growth. This forecast remains surrounded by uncertainties including global economic developments, shifts in CoVid-19 containment policies and geopolitical tensions. Middle East oil demand for 2023 is estimated at 8.65 Mb/d, up over 350 kb/d from 2022, with diesel and jet fuel to lead most of the increase.

TOP ENERGY DEALS IN THE REGION

Project	Summary	Client / buyer	Contractor / seller	Implications
Conjuncta, Masdar and Infinity Power to develop a US$ 34 B green hydrogen project in Mauritania	Mauritania is welcoming its fourth large-scale green hydrogen project.	Conjuncta, Masdar, and Infinity Power	The government of Mauritania	• A consortium of Germany's Conjuncta Gmbh, UAE's Masdar, and Egypt's Infinity Power signed a MoU to develop a US$ 34 B green hydrogen project in Mauritania. Set in the capital of Nouakchott, the project will be developed in 4 phases with the first to be completed in 2028 involving 400 MW of the total planned 10 GW electrolyser capacity. • Germany is set to not only be the technological provider in the project but also the offtaker for the 8 Mtpa of the hydrogen produced. • Germany especially has dipped its hands recently in the closer North African countries with the German firm

				VNG AG’s MoU with Algerian Sonatrach for a 50 MW green hydrogen pilot project and the PAREMA deal with Morocco to support solar, wind, and marine projects for green hydrogen. Even Tunisia is being explored with talks of bilateral cooperation following meetings between the EU ambassador to Tunisia Marcus Cornaro and the Minister of Industry, Mines and Energy Neila Gonji. The Republic recently launched tenders for 1700 MW solar PV projects under concessions.
Sinopec to buy into QatarEnergy’s LNG project	China Petroleum & Chemical Corp. (Sinopec) signed a shareholding agreement with QatarEnergy to acquire a 5% stake in the North Field East expansion (NFE) project	Sinopec	QatarEnergy	• The equity stake follows the signing of a 27-year sales and purchase contract between Sinopec and QatarEnergy in November 2022, for 4 Mtpa of LNG to be supplied from the NFE expansion project. The 27-year LNG deal, which is one of the longest contract durations in the LNG industry, was signed at an oil-linked Brent slope of 12.7-12.8%. • Sinopec agreed to take a 5% stake in a train with a processing capacity of 8 million tons a year. The NFE expansion project is expected to begin shipping LNG in 2026. The investment marks the first time China has directly backed an LNG plant in Qatar, one of the world’s top exporters. It’s also the latest in a flurry of deals to lock-in gas supply for decades amid intensifying global competition, particularly between Europe and Asia. • Qatar is also planning the North Field South (NFS) expansion, consisting of two trains with a combined capacity of 16 Mtpa. North Field East will add 32 Mtpa of capacity.

Iraq Oil Market Highlights

Crude Oil Prices
Closing prices, May 4th 2023

Brent: USD 72.87
WTI: USD 68.95

Iraq Rig Count
As at month end

April 2023: 59
Mar 2023: 59

Iraq Oil Exports
For the month of

Mar 2023: 3.534 Mbpd
Feb 2023: 3.738 Mbpd

Oil Exports Revenue
For the month of

Mar 2023: 540 USD M
Feb 2023: 826 USD M

Get in Touch

For any inquiries, contact us at info@almajalenergy.com