

uni per

Quarterly Newsletter Q3 2021



HYPORT® Duqm signs cooperation agreement with Uniper to explore green ammonia offtake

Oman's strategic green hydrogen project HYPORT® Duqm has signed a cooperation agreement with energy giant Uniper. Under the cooperation, Uniper will be joining the project team to provide engineering services and negotiate an exclusive offtake agreement of green ammonia.

With Uniper, HYPORT® Duqm's shareholders DEMA Concessions and OQ Alternative Energy have onboarded a globally recognised and reputable partner, which will support HYPORT® Duqm in demonstrating a strong business case for the offtake, and in turn, enable them to secure optimal financing for the project.

This agreement marks another important milestone for HYPORT® Duqm, after having secured its 150 km² renewable generation site in the Special Economic Zone at Duqm, Oman earlier this year. The site is being prepared for the deployment of a series of meteorological masts to confirm Duqm's excellent solar and wind conditions which are available throughout the year and that form the basis of a successful green hydrogen to green ammonia project. In the first phase the HYPORT® Duqm project will develop a 250 to 500 MW green hydrogen facility in the Special Economic Zone at Duqm. The facility is planned to come into operation in 2026 and will respond to the global demand for green hydrogen and its derivatives. HYPORT® Duqm Phase 1 will establish a complete power-to-product value chain at utility scale, combining first-of-a-kind technology integration with economies of scale, producing competitive green hydrogen and green ammonia.

Complete green hydrogen value chain

Future expansions are foreseen in subsequent phases, whereby a further scaling up of the value chain will transform the Special Economic Zone into a Green Hydrogen hub in Oman and the wider region. HYPORT® Duqm showcases the development of a complete green hydrogen value chain, from the installation of up to 1.3 GWp of renewable power generation capacity from solar and wind (Phase 1), via the electrolysis-based hydrogen production to the synthesis of green ammonia. HYPORT® Duqm will connect to Port of Duqm's brand-new export terminal, storage infrastructure and liquid jetties and will use Port of Duqm as its gateway to deliver competitive decarbonised molecules to users worldwide.

"We need to get hydrogen out of the laboratory and start using it in large-scale applications and marketable industrial solutions — we should turn it into a market and exploit its wide variety of uses. One way of achieving this is to import green ammonia and convert it into hydrogen, which is something we are looking at for Wilhelmshaven on Germany's North Sea coast. Germany will be heavily dependent on imports if we want to use hydrogen to help us achieve our climate goals."

Niek den Hollander, CCO, Uniper

"The partnership with OQ and DEMA in the HYPORT® Duqm project supports Uniper's global hydrogen strategy. Engagements like this one in the Middle East offer Uniper the opportunity to enter into green hydrogen projects that can potentially take advantage of some of the world's lowest LCOEs, thereby delivering cost competitive hydrogen or its derivatives, such as green ammonia, to Germany and Europe. With Uniper as the offtake partner for green ammonia, the partnership will benefit from the additional value added through Uniper's global commodity trading network."

John Roper, CEO Middle East, Uniper

"DEME Group has always been at the forefront of sustainable solutions on a global scale. The United Nations' Sustainable Development Goals are the compass to our present and future activities. With HYPORT® Duqm, DEMA is proud of taking the initiative in the global energy transition whereby green hydrogen has been identified as one of the major energy vectors. This project will not only contribute to the challenging European ambitions to reduce CO₂ and GHG emissions (as expressed in the Green Deal and Fit for 55 objectives) but will also strengthen Oman and the Sultanate's visionary future."

Luc Vandebulcke, CEO, DEMA Group

"The cooperation agreement with Uniper marks a major milestone in the development of the HYPORT® Duqm project. This brings us a step closer to delivering a world scale green Hydrogen facility in the Special Economic Zone at Duqm and showcases the true potential of Oman's renewable capabilities as well as the critical role that the country can play as a net energy exporter. This agreement will pave the way to further cooperation between OQ Alternative Energy, DEMA Concessions and Uniper moving us to the engineering phase of the project. Uniper's expertise coupled with that of DEMA Concessions and OQ Alternative Energy will ensure that HYPORT Duqm is provided with the necessary talent and tools to take us through the engineering phase."

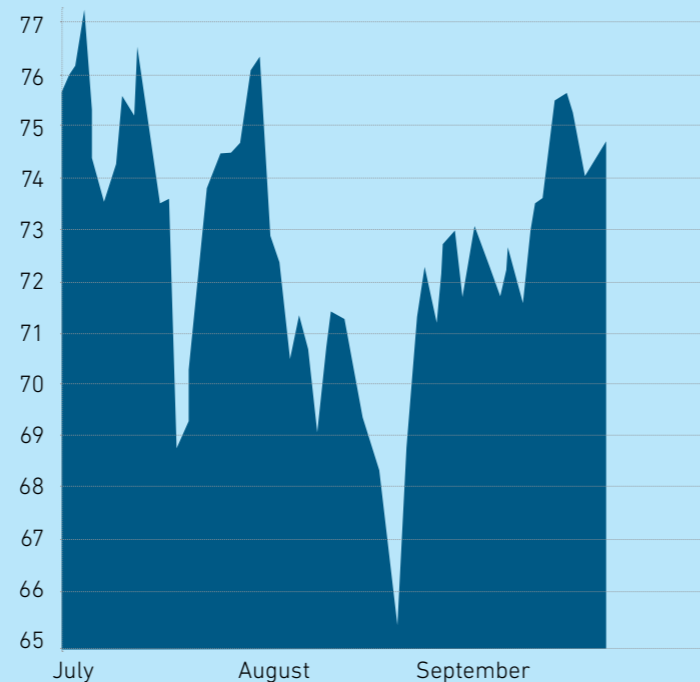
Dr. Salim Al Huthaili, CEO, OQ Alternative Energy

Oil Markets Quarterly Review

Oil Prices Continue to Rise Near 2018 Highs

World Oil Outlook

In September, oil held gains near the highest since 2018 amid a global energy crunch and falling stockpiles from the US to China. Brent crude oil spot prices averaged \$71/bl in August, down \$4/bl from July but up \$26/bl from August 2020. Brent prices have risen over the past year as result of steady draws on global oil inventories, which averaged 1.8mn b/d during the first half of 2021. Forecast from the Energy Information Administration (EIA) expect Brent prices to remain near current levels for the remainder of 2021, averaging \$71/bl during the fourth quarter of 2021. Energy Information Administration (EIA) expects that in 2022, the growth in production from OPEC+, US tight oil, and other non-OPEC countries will outpace slowing growth in global oil consumption and contribute to Brent prices declining to an annual average of \$66/bl.



Global Oil Demand

Oil demand growth in 2021 remains unchanged, showing growth of 6.0mn b/d despite some offsetting revisions. In Q3 2021, oil demand has proved to be resilient, supported by rising mobility and travelling activities. However, the risk of increased Covid-19 cases, driven by the Delta variant, is overshadowing oil demand prospects going into the fourth and final quarter of the year. Global oil demand in 2021 is now estimated to average 96.7mn b/d. In 2022, oil demand is expected to robustly grow by around 4.2mn b/d – exceeding pre-pandemic levels. OPEC forecasts that Oil demand will grow sharply in the next few years as economies recover from the pandemic, adding that the world needs to keep investing in production to avert a crunch despite an energy transition.

Source: OPEC, EIA

Global Oil Supply

OPEC crude oil production in August increased by 0.15mn b/d month-on-month, to average 26.76mn b/d. The outages in North America from a fire on a Mexico's offshore platform and the disruptions caused by Hurricane Ida resulted in revision in non-OPEC supply growth in 2021. More than 90% of crude oil production in the Federal Offshore Gulf of Mexico (GOM) was offline in late August. The estimate for North Sea production has also been revised down, resulting in an annual growth forecast of 0.9mn b/d to average 63.8mn b/d. The main drivers for 2021 supply growth remain to be Canada, Russia, China, the US, Brazil and Norway, with the US expected to see year-on-year growth of only 0.08mn b/d.

	July 2021	August 2021	Change (August/July)
WTI	\$72.43/bl	\$67.71/bl	-6.5%
Brent	\$74.29/bl	\$70.51/bl	-5.1%
Spread	\$1.86/bl	\$2.80/bl	50.5%

UNIPER ENERGY DMCC

Spotlight on Marine Biofuel

Marine Biofuels are produced from a biogenic feedstock which is derived from organic sources. Although Biofuels emit CO₂ when burned in an internal combustion engine, the emissions are retrieved from the atmosphere during the production of their feedstock. Thus, they are usually labeled as net zero fuel from a lifecycle perspective.

VLSFO Characteristics Uniper's VLSFO is produced by blending its own low sulphur straight-run residue with low sulphur fuel oil from third party refineries. The result is a very stable, high viscosity fuel oil blend, which complies with the ISO8217:2010 specification for RGM380 marine fuel oil.

Biofuel Characteristics Neutral Fuels has been producing international standards-compliant biofuel in the UAE since 2011. Its net zero biofuel is a clean, green renewable fuel, which immediately reduces engine carbon emissions to zero. Made exclusively from waste cooking oil, Neutral Fuels net zero biofuel is a commercially viable drop-in replacement for the harmful fossil fuel traditionally used in diesel engines. Neutral Fuels products are third-party tested to European Standard EN14214, American Standard ASTM D6751, UAE ESMA Standard for biodiesel UAE.S 5023:2018, and Indian standard IS15607-2016.

Marine Biofuel: B10M & B20M

Emission Reductions Carbon

Carbon: Neutral Fuels EN14214 FAME reduces carbon (and other) emissions to net zero. All Neutral Fuels blends, such as B10M and B20M, reduce emissions proportionately. Net zero fuel balances the carbon emissions created in the production of the product with the reduction of carbon emissions achieved to equal zero.

Other Gases: Compared to fossil diesel, biofuel combustion significantly lowers the production of air pollutants. Biofuel is also almost free of sulphur with a content lower than 10 ppm, substantially reducing sulphur dioxide emissions.

ISCC Certified: Uniper's B10M and B20M have a Certificate of Sustainability issued by ISCC for the portion of EN14214 FAME in the blend. Uniper will issue a Proof of Sustainability (PoS) to its customers on every biofuel loading.



Uniper Strategic Sustainability Plan (SSP)

Targets for climate action and security of supply

- Achieve carbon neutrality for our power generation portfolio in Europe by 2035.
- Maintain a Group-wide carbon intensity threshold of 500g of CO₂ per kilowatt hour (on average) through 2020.
- Conduct, by 2022, at least 20 projects whose aims include decarbonisation.

Source: Uniper. Carbon neutrality in reference to Direct Scope emissions and Carbon intensity calculated on average from 2018 to 2020

IMO 2020 Progress Report

The Shipping Industry Sails the Green Waves

Confronted with the alarming impacts of climate change, the maritime industry, like other industries, need to examine the steps to reduce its emissions. With shipping accounting for 80% of global trade and 3% of greenhouse gas emissions, the IMO has currently tabled a strategy to reduce international shipping's total annual emissions by at least 50% of 2008 levels by 2050. The strategy is set to be revised in 2023.

As world leaders prepare to meet in Glasgow for the COP26 summit, the calls for net zero targets become louder. Recommended by both the Intergovernmental Panel on Climate Change (IPCC) and the UN Secretariat, net zero target by 2050 goes beyond the IMO's current goal of reducing the shipping emissions by 50% by mid-century.

Aligned with the calls for net zero target in shipping, the Getting to Zero Coalition was created. It is a multi-stakeholder, multi-country effort to accelerate the shift to zero emissions shipping by getting commercially viable deep sea zero emission vessels powered by zero emission fuels into operation by 2030. It is made up of 140 industry leaders from 32 different maritime nations representing the entire maritime value chain, including shipping, cargo, energy, finance, ports, and infrastructure. The coalition's overarching goal is to achieve industry-wide carbon neutrality by 2050.

The Getting to Zero Coalition urges world leaders to:

- Deliver a clear and equitable implementation plan when adopting the International Maritime Organization's Greenhouse Gas Strategy in 2023.
- Support industrial scale zero emission shipping projects through national action, for instance by setting clear decarbonization targets for domestic shipping and by providing incentives and support to first movers and broader deployment of zero emissions fuels and vessels.
- Deliver policy measures that will make zero emissions the default choice by 2030, including meaningful market-based measures, taking effect by 2025 that can support the commercial deployment of zero emission vessels and fuels in international shipping.

Source: Getting to Zero Coalition

"The single biggest challenge we face is the battle against global warming and climate change. We need more collaborative action to speed up research into emission-cutting technology in the maritime sector and into zero- and low-carbon marine fuels. Above all, we need to make sure we leave no one behind."

Kitack Lim, Secretary-General, IMO



Average Bunker Prices: Fujairah

July-September 2021	High	Low	Average	Spread
VLSFO (<0.5%)	\$574/mt	\$500/mt	\$538.50/mt	\$74/mt
HSFO (IFO380)	\$500/mt	\$406.50/mt	\$441/mt	\$94/mt

Source: Ship & Bunker

Spotlight: Uniper at Gastech 2021



Niek den Hollander (CCO Uniper) at the Panel Talk:
Towards a net zero integrated energy company



David Bryson (COO Uniper) at the Panel Talk:
Hydrogen & Ammonia: Leading the Transformation of the Energy Industry

“ A great option is the **storage of hydrogen in repurposed natural gas storages**. However, currently demand and regulation that incentivize investments in repurposing natural gas storages into hydrogen storages are lacking.

Dr. Axel Wietfeld | CEO of Uniper Hydrogen

from the Panel Talk: "Establishing Hydrogen Supply Chain Models Within Existing Infrastructure"



David Bryson (COO Uniper) in an interview with Skynews Arabia

“ For physical realization of hydrogen imports, hydrogen derivatives are the only feasible option in the medium-term. Particularly **ammonia is a good and comparably cheap transport carrier for hydrogen.**"

Dr. Axel Wietfeld
CEO of Uniper Hydrogen

from the Panel Talk: "Establishing Hydrogen Supply Chain Models Within Existing Infrastructure"



Last night's Uniper **VIP Dinner**

Energy News Highlights

Top 10 Headlines in Q3, 2021

July

July 14th ADNOC Invests Over \$750mn in Drilling-Related Services to Support Production Capacity Growth

The Abu Dhabi National Oil Company (ADNOC) announced an investment of \$763.7mn in integrated rigless services across six of its artificial islands in the Upper Zakum and Satah Al Razboot (SARB) fields to support its production capacity expansion to 5mn b/d by 2030. The investment is in the form of three contracts awarded by ADNOC Offshore to Schlumberger, ADNOC Drilling, and Halliburton after a competitive tender process.

Source: ADNOC

July 20th IEA: Emissions Set to Hit Record Levels In 2023, 'No Clear Peak in Sight'

Only a small chunk of governments' recovery spending in response to the Covid-19 pandemic has been allocated to clean energy measures, according to the International Energy Agency, with the Paris-based organization forecasting that carbon dioxide emissions will hit record levels in 2023. Published on Tuesday, the IEA's analysis notes that, as of the second quarter of this year, the world's governments had set aside roughly \$380bn for "energy-related sustainable recovery measures." This represents approximately 2% of recovery spending, it said.

Source: CNBC



July 28th Global Gasoline Demand Could Flatten as Delta Variant Spreads

Resurging Covid-19 infections in many major oil-consuming markets, including the United States, Europe, and Southeast Asia, could stagnate the recovery in road fuel consumption globally in the coming weeks. Estimates from the United States point to record gasoline consumption for 2021 this past week, but analysts fear that the rising number of Delta variant infections could put the brakes on the demand rebound well before the summer travel season ends.

Source: OilPrice

August 2021

August 9th IPCC Report Is 'Code Red for Humanity'

The landmark study warns of increasingly extreme heatwaves, droughts and flooding, and a key temperature limit being broken in just over a decade. The report "is a code red for humanity", says the UN chief.

Source: BBC News

August 23rd Maersk Inks Deal to Secure Supply of 'Green' E-Methanol for Vessel

The plant would then produce approximately 10,000 metric tons of e-methanol used by Maersk's ship every year. The e-methanol will be made using renewable energy and biogenic carbon dioxide, with production of the fuel for Maersk slated to begin in 2023. The United States Environmental Protection Agency describes biogenic emission sources as "emissions that come from natural sources."

Sources: CNBC



September 21st OPEC Chief: Oil Prices Influenced By 'Transition Premium'

Crude oil prices are being affected by a "transition premium" amid the switch to renewables, in addition to the fundamentals of global supply and demand, OPEC's Secretary General has said. "I am sure you must have noticed in the market today. The prices that we are seeing are not entirely dictated by supply and demand conditions because a transition premium is [added to] the prices of hydrocarbons."

Source: The National

September 22nd Powell: US Fed Taper Could Start 'Soon' and End Around Mid-2022

The US central bank could begin scaling back asset purchases in November and complete the process by mid-2022, after officials revealed a growing inclination to raise interest rates next year. Powell, explaining the US central bank's first steps toward withdrawing emergency pandemic support for the economy, told reporters that tapering "could come as soon as the next meeting."

Sources: US Federal Reserve, Bloomberg

September 23rd OPEC Warns Natural Gas Crisis May Create Oil Market Turbulence

As the global natural gas crunch hits suppliers and consumers alike, OPEC nations are warning of the knock-on impact for oil markets. Iraq expects higher demand for crude as the shortfall of gas forces consumers to look for alternative fuels. The head of Nigeria's state oil firm predicted that petroleum demand could be boosted by 1mnb/d, with prices potentially gaining \$10/bl over the next six months. While the two exporters are hardly neutral observers of the situation, their views echo thinking that's increasingly widespread in the market.

Source: Bloomberg

September 2021

September 16th Shipping Industry Urges UK to Back \$5bn R&D Fund to Meet Net Zero Challenge

The shipping industry urged the UK to back its "moon-shot" \$5 billion research and development fund on Thursday, which aims to get ocean going zero-emission ships in the water by 2030 and help the sector achieve net zero by 2050. While the British government called for net zero global shipping emissions by 2050 earlier this week, the UK has yet to back a proposal to fund the research and development of alternative zero-carbon fuels and propulsion systems to ensure that target is achievable, according to the International Chamber of Shipping.

Source: The National



Aramco Posts Nearly 300% Leap in Second-Quarter Profit

Saudi state oil giant Aramco reported a stunning 288% increase in net income to \$25.5bn for the second quarter, while maintaining its dividend of \$18.8bn, as big oil benefits from higher prices and a recovery in worldwide demand.

Sources: Arab News





Uniper Energy Dubai (UED)



Uniper Energy DMCC, a Uniper group company

Registered office: Uniper Energy DMCC, Jumeirah Lake Towers (JLT), Almas Tower, Office 7-H, P.O. Box 346067, Dubai, United Arab Emirates

Uniper Energy Fujairah FZE, a Uniper group company

Registered office: Fujairah Free Zone, P.O. Box: 50346, Fujairah, United Arab Emirates