

# ENERGY TRANSITION DIALOGUES

# INTELLIGENCE BRIEFING

ISSUE 21, MONDAY, SEPTEMBER 6<sup>th</sup>

**GI** Consultancy  
Intelligence  
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**SCROLL DOWN!**

**EYES ON CIRCULARITY**

**OMAN'S GREEN PUSH**

**MENA'S GREEN STRATEGIES?**

**OIL'S COVID SHOCK**

## A TOTAL CIRCULAR TRANSFORMATION IS A MUST

**Daxita Rajcoomar, Chief Sustainability Officer – AMEA, ENGIE**

**W**hen it comes to fighting against climate change and meeting the Paris Agreement goals, we need a total circular transformation. Firms should start looking into how they can transform their products and services from a circularity perspective. Only then can we start putting measures in place that are driving decarbonization. There have been decades of discussion around policy and advocacy. We cannot afford to discuss our commitments and digest them into strategies and goalposts – we need to act now. This entails engagement with multistakeholder organizations and the formation of public-private partnerships to propel development into climate action focus areas within this decade.

### Localizing ESG Targets

Environment, Social, and Governance (ESG) targets have always been vital. From an investor's perspective, it acts as a reassurance mechanism that the projects they are investing in are sustainable. As a company, localizing sustainability efforts only make them more meaningful. For example, at ENGIE, we use a regional context as the playing field of how we conduct business and localize our ESG requirements. Ultimately, ESG elements must complement the sustainable development goals of the country of operation. Only then can ESG targets support the real needs of a country and resolve global issues.



**FULL INTERVIEW HERE**

## TOP TAKEAWAYS

- A total circular transformation is a must to drive decarbonization.
- Firms' ESG goals must be localized and complement the sustainable development goals of the countries they operate in.
- Actioning net zero targets within this decade is critical to achieve mid-century goals.

## TOP 5 NEWS STORIES

- Abu Dhabi to Issue Clean Energy Certificates
- Global Efforts Not Enough to Reach Net Zero by 2050
- Shell to Boost Oman RE Portfolio
- Funds Holding \$10trn Fall Short on ESG Goals
- Hydrogen Hopes Face Scale, Price Challenges

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# OMAN IS SET TO BE A MAJOR HYDROGEN EXPORTER

Prof. Michael Modigell, Director, Oman Hydrogen Centre

## HYDROGEN

**O**man is very well positioned to become a major hydrogen hub. It has one of the best conditions to produce green hydrogen: It has 2000 kilometers of coastline, abundant solar and wind energy, and vast land areas. The political stability and the young, educated nation all play in the Sultanate's favor. Oman plans to build the world's largest green hydrogen plant. It is powered by 25GW wind and solar energy and to be at full capacity by 2038. When it comes to creating a hydrogen economy, Oman is keen to use this green fuel domestically as part of its decarbonization effort and as an alternative export commodity. The Sultanate still has a large carbon footprint, considering its size and population, making the former increasingly important in intensifying its climate commitment.

### The value of international partnerships

The importance of strategic partnerships with significant importers, such as Germany, in producing, processing, applying, and transporting clean hydrogen cannot be overlooked. International partnerships are key in moving from the hype of hydrogen to an actual hydrogen economy. The goal is for the Middle East to build its own capacity and be a leader in research and innovation. The region should start developing policies and regulatory instruments to drive technologies in hydrogen development to commercial readiness. We already see some countries coming up with these policies that could have a trickle effect on others.



[FULL INTERVIEW HERE](#)

## 25GW

of solar and wind energy to generate millions of tons of green hydrogen is planned by Oman's OQ and its partners.

## 13

major institutions from both public and private sectors have joined the new national hydrogen alliance, which is set by the Oman Ministry of Energy and Minerals to boost the region's hydrogen capabilities.

## 30%

of Oman's electricity needs is planned to be generated from clean energy sources by 2030, as detailed in Oman's National Energy Strategy.

## 100MW

is the capacity of Amin photovoltaic solar power plant developed by Petroleum Development Oman, which began commercial operations in 2020.

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## PODCAST

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## THIS WEEK MENA'S GREEN STRATEGIES?

FULL PODCAST HERE

Robin Mills  
CEO, Qamar Energy (UAE)**The energy transition narrative should not be a case of decarbonization versus jobs and economic growth. The two are not mutually exclusive.**

The Middle East and North Africa (MENA) should tackle growth and sustainable development. The question is how to sustain the oil and gas industry in the new world and how to make sure that it is as environmentally friendly as possible. The goal should be to develop new energy sources to decarbonize the domestic economy, and potentially for export. National Oil Companies (NOCs) should look to cut down on flaring and methane leakage, improve energy efficiency and develop new products like hydrogen and ammonia.

**UAE's potential net zero pledge?**

Although there has not been any formal announcement yet, the UAE has hinted that there may be plans for a net zero target. We have seen

many countries adopting such targets but for a major oil producer to announce this would be a significant move forward. It would be interesting to see how that would push other oil producers to follow suit.

**MENA's progress?**

Renewable energy in MENA is the cheapest form of electricity available. If you want to use the gas for other uses or export, replacing the domestic power sector with solar and wind, makes perfect sense. Some countries have done enough to show the way forward, particularly in power generation, renewable energy, energy efficiency, and reducing the carbon footprint of NOCs. But in terms of the decarbonization of industry and transport, we are at a very early stage throughout the whole of the region.

FULL PODCAST HERE

Ali Zerouali

Director of Cooperation &amp; International Development, Massen (Morocco)



**In the past decade, we have seen a continued decrease in the prices of renewable energy. Now, in the context of the Covid-19 pandemic, there is more stabilization and a slight increase in costs. This is mainly due to pressure on raw materials and the increased cost of transport of spare parts.** We are expecting a shift again towards a decrease in the prices. This is critical to continue to accelerate the energy transition. Even if we have many countries that are committed to accelerating their energy transition, it all depends on the price of renewables, compared to the cost of fossil fuels.

**Green ecosystems**

Morocco as a country is a success story when it comes to developing renewable energy. The country's share of renewables has reached

around 4GW, which is around 40% of the electrical capacity. Looking ahead, the country has revised upwards its renewable energy ambition with a decision to increase the share of total installed capacity to more than 52% by 2030 – exceeding the country's objective announced at COP21 in Paris. There are many different options to consider when it comes to increasing the share of renewable energy – green hydrogen being an important one. Morocco is currently developing a hydrogen plant with an electrolysis capacity of around 100 MW. One of the reasons for this green overhaul, among many others, is the EU's plan to introduce a carbon tax from 2022. This will affect all MENA countries. If they intend to maintain their industries' competitiveness, they need to accelerate their transition to avoid being left behind.

FULL PODCAST HERE

Ahmed Badr  
Director – Project Facilitation & Support, IRENA (UAE)

**Financing the energy transition at the scale required to reach the Paris Agreement is viable, subject to three important caveats. 1. Investments from the private sector should be tripled to at least \$2trn per year 2. Create an enabling regulatory framework 3. Most importantly, form new partnerships between the private sector, banks, and international development organizations and take a blended finance approach.**

The private sector is well-equipped to manage project implementation risks but may not be best suited to take on policy risks or investments in innovative approaches. From the banking perspective, when it comes to investments, the most challenging part is the availability of a bankable pipeline of projects. The second is ensuring that there are no further risks after the transaction is done. These partnerships will create a message of comfort for both parties and signal the assurance that they need to invest in sustainable projects.

**3.5 GW** was the total installed renewable energy capacity in the Kingdom of Morocco at the end of 2020, according to IRENA.

**Oil majors' positive shift**

More than 25% of clean energy investments come from oil majors. This is a positive sign that illustrates the shift in the strategic direction of these companies and their aim to play an active role in a low carbon future.

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## INSIGHTS

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# Global Oil's Covid Shock...

## Oil demand collapsed and then recovered, but the world will not be the same.



**Bill Spindle**  
Council on Foreign Relations, International Affairs Fellow, India

**F**or the global oil industry, the COVID crisis offered a crystal ball-like peek into its future. The view wasn't pretty. Demand for oil, which has marched relentlessly higher for a century, suddenly plummeted to unprecedented lows. It's recovered some since, but even the towering heights of the industry agree the world is changed.

Had the problem been the global pandemic alone, the industry would almost certainly have put on its usual brave face. Oil titans are, if nothing else, expert managers of travail — whether wars, embargos, environmental mishaps, natural disasters or political upheaval. But it was more than that. The Covid outbreak came amid an epochal transition away from fossil fuels, and it looked less like industry's newest challenge to conquer than a vision of the future, a vision of falling demand for oil and gas.

Oil majors, consultants and multilateral institutions now agree that “peak oil” is just over the horizon. British oil major BP recently laid out two scenarios, one where demand has already peaked and the other with peak coming in 2025. Consultants Rystad Energy recently echoed the same time frame, while McKinsey & Co., and Norway's state energy powerhouse Equinor ASA, are among those predicting a peak by the end of the decade. The Organization of the Petroleum Exporting Countries (OPEC) argues — and most certainly holds out hope — for a considerably longer timeline, but even it is conceding it will come by 2040.



As energy consumption collapsed with pandemic lockdowns, an economic knife fight broke out between the two biggest petro-states, Saudi Arabia and Russia. Since late 2016, they had been working relatively well together, managing supply for a world demanding around 100mn barrels of oil per day. But when demand plummeted, a dispute broke out over who should withhold how much production from the market to prop up prices. Saudi vowed to unleash a flood of new production onto a market already awash in unwanted oil. The result was a stomach-churning drop to sub-zero prices as storage tanks filled with oil and futures traders actually paid to get rid of impending shipments. Leaders of the two countries patched up their differences sufficiently to carry on.

But while state oil powerhouses can absorb the short-term stress of such low prices, their publicly traded competitors spiraled into acute financial distress, particularly those in the US-based fracking industry. These upstarts, who extract oil and gas from solid rock, expanded rapidly in the past decade to make the US the world's largest oil

producer. Now, as they frantically laid off workers and cut spending on new wells, some frackers went bankrupt. Those remaining have refocused on their investors, who had grown impatient with paltry returns even amid record-breaking production gains. The fracking industry won't grow at all this year, said Ryan Lance, Chairman and CEO of ConocoPhillips, speaking to an industry conference CERAWEEK by IHS Markit earlier this year. Producers are “hyper-focused” on assuring investor returns, not just expanding production, he said.

In the short-run, recovery for the oil industry remains dependent on the global rollout of vaccines and government stimulus spending. Indeed, oil consumption has been ticking up in the first quarter of 2021, and the US Energy Information Agency (EIA) sees consumption in larger volumes than 2019 as early as next year. Yet the International Energy Agency (IEA) notes that “there may be no return to ‘normal’ for the oil market in the post-Covid era.”

[FULL ARTICLE HERE](#)

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# SNAPSHOT

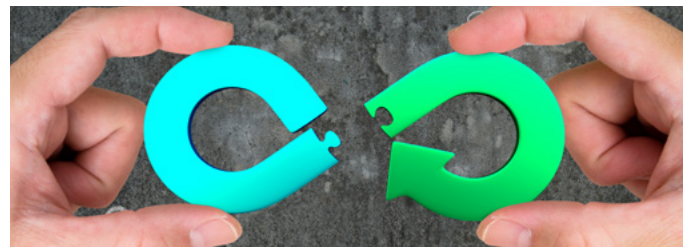
## CIRCULAR ECONOMY PRINCIPLES GAIN TRACTION – FINALLY

A Circular Economy is one of the Top 5 Themes of the Energy Transition that we delve into every day as part of GI's Energy Transition Dialogues. We also host weekly events with the world's leading voices on how this urgently needed holistic approach to global decarbonization can best be accelerated – and quickly.

**O**ur enormous footprint on the planet is ever-growing – and very little of it has supported the environment. To reach climate goals, we must transition from a linear marketplace, which values exploitation of natural resources to achieve economic growth, towards a holistic environment, which prioritises a circular economy (CE). The need for this shift has never been greater, with industry beginning to respond; Saudi Aramco for one, the world's biggest oil exporter, made CE principles a key part of its G20 Presidency last year.

### Middle East's momentum?

Very simply put, a CE encompasses four Rs: Reduce, Reuse, Recycle, and Remove. It aims to restore the human-earth balance and harmonize the carbon cycle – a tall but urgently needed goal. For Saudi Aramco, the four Rs means reducing zero routing flaring, reusing enhanced oil recovery (EOR), recycling CO<sub>2</sub> into products, and removing CO<sub>2</sub> emissions via its mangrove initiative.<sup>1</sup> The UAE is another illustration of regional development, being the first country worldwide to sign the World Economic Forum's (WEF) 'Scale 360' initiative. This model for the development of a circular economy leverages the use of digital tools, as per the 4<sup>th</sup> Industrial Revolution (4IR). The UAE has also approved the Circular Economy Policy 2021-2031.<sup>2</sup> Overall, countries in the Gulf Cooperation Council (GCC) alone could save \$138bn by 2030 with a circular model, corresponding to nearly 1% of the region's cumulative GDP between 2020-2030.<sup>3</sup>



### Tech drivers?

Green and digital technologies play a key supporting role in the rise of CEs, such as carbon, capture and storage (CCS) in the hydrocarbon market. For example, one of the optimal approaches to stabilizing the global climate involves CCS at the multi-gigaton scale by 2050, with approximately 95% of captured CO<sub>2</sub> being geologically stored and the remaining 5% being utilized.<sup>4</sup> Some oil majors are taking note. For example, Saudi Aramco captures and processes 45mn standard cubic feet of CO<sub>2</sub> at the Hawiyah Gas Plant, which is then piped 85km to the Uthmaniyah oil field to be injected into the oil reservoir. This helps improve overall oil recovery and reduce CO<sub>2</sub> emissions.

Effectively instilling a CE is not an easy nor quick task; it means rewriting economic and consumption norms. But there is no doubt that it must be a core part of climate mitigation targets, including the plethora of net zero goals that are emerging worldwide. Without CEs, long-term decarbonization targets will crumble.

## KEY INSIGHTS Views shared on our exclusive weekly events platform.

*“A circular economy is not only about waste management, but also about partnering for a new ecosystem and rethinking product development.”*

**Pascal Chalvon Demersay, Chief Sustainability Officer & Government affairs, Solvay Group**

*“Circular economy initiatives mustn't be confused with those relating to net zero pathways. Resource efficiency should be tackled from a whole value chain perspective, considering broader sustainability issues.”*

**Peter Godfrey, Managing Director- APAC, Energy Institute**

**45%**

of the greenhouse gas (GHG) reductions needed to hit net zero can be achieved via the pursuit of circularity, highlighted the Ellen McArthur Foundation.

**3%**

increase in resource productivity globally could be achieved by a circular economy, stimulated by technological innovation, said McKinsey & Company.

**90%**

of raw materials used in manufacturing in Europe become waste before the product leaves the factory, according to the Cambridge Judge Business School Circular Economy Centre (Cec). Such processes must be overhauled.

## WE ASK

## HOW TO MOVE BEYOND PLEDGES TO MAKE THE PURSUIT OF CIRCULARITY A REALITY IN THE 2020S?

1 Saudi Aramco; 2 UAE Government; 3 International Energy Agency (IEA); 4 IEA.

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# THIS WEEK'S EVENTS

## ENERGY TRANSITION DIALOGUES Consultancy Intelligence Publishing

### TWO MINUTE WARNING INTERVIEW SERIES

Tuesday /// Sept. 7<sup>th</sup> /// 12:00 (UAE)

**Shelly Trench**  
Partner and Managing Director  
The Boston Consulting Group (BCG)



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## ENERGY TRANSITION DIALOGUES Consultancy Intelligence Publishing

### HYDROGEN FULL COURT PRESS

**Andrew Clennett**  
Chief Executive Officer  
Hiringa Energy

Wednesday /// Sept. 8<sup>th</sup> /// 11:00 (UAE)

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## ENERGY TRANSITION DIALOGUES Consultancy Intelligence Publishing

PODCAST WEDNESDAY /// SEPT 8<sup>th</sup> /// 13:00 (UAE)

### Hydrogen: Seizing Investment Opportunities



**Dr. Steve Griffiths**  
Senior Vice President - Research and Development  
Khalifa University



**Dr. Joaquin Narro**  
Managing Director  
Alcazar Investment



**Thomas Engelmann**  
Head of Energy Transition  
KGAL Investment Management



**Brian Cozzolino**  
Director  
Gulf Intelligence

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