

EXCLUSIVE INSIGHTS /// ACTIONABLE INTELLIGENCE /// EXCLUSIVE SURVEY ANALYSIS

ENERGY TRANSITION DIALOGUES

INTELLIGENCE BRIEFING

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SCROLL DOWN!

H2 HUBS

TACKLING FOOD SECURITY

SUSTAINABLE FINANCE

THIS WEEK'S EVENTS

HYDROGEN HUBS: PROSPECTS FOR OMAN?

Dr. Abdullah Al Abri, National Hydrogen Economy Project Manager
Petroleum Development Oman (PDO)

The Government of Oman is working with stakeholders to pinpoint incentives that could accelerate the transition towards blue, turquoise, and green hydrogen.

Creating local demand is a natural first step in the hydrogen journey. Over the last eighteen months, there was immense discussion about identifying the sectors that Oman can develop demand for. As the logic says, we have to start with sectors that already utilize hydrogen in some capacity and have the potential to substitute grey hydrogen with blue and ultimately, green hydrogen. In addition, if we do blue hydrogen in the initial setup, we should look for opportunities in producing chemicals and synthetics that have a market size in Oman. This is applicable for oil and gas operations in enhanced oil recovery (EOR) applications, for example. There is also interest in developing demand for the mobility sector, especially for heavy duty trucks. Lastly, although still premature, Oman is looking to utilize hydrogen for power generation. There are also opportunities about how to blend green hydrogen into the gas network.

H2 Hubs: Building competition in GCC

Oman is advancing its hydrogen agenda to establish hydrogen hubs and its broader hydrogen business in the country – to serve as a new vector in our energy portfolio. In the same fashion that we approach the oil and gas business in the Middle East, we do not see any harm in creating competition with other hubs in the region. Energy demand is ever increasing and we need alternatives, allowing more room for different hubs to emerge.



FULL INTERVIEW HERE!

IGW

by 2025, 10 GW by 2030 is the potential for clean hydrogen production – both blue and green- in Oman.

Oman National Hydrogen Strategy

30GW

is the projected clean hydrogen production capacity of Oman by 2040.

Oman National Hydrogen Strategy

13

key public and private organizations encompassing government bodies, oil and gas operators, educational and research institutes as well as ports are collaborating in Oman's national hydrogen alliance (branded as Hy-Fly) to support and facilitate the production, transport and utilization of clean hydrogen for domestic use and export.

The Ministry of Energy and Minerals- Sultanate of Oman

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“Vast Opportunities for Sustainable Indoor Vertical Farming in the GCC”

David Rosenberg, CEO, Aerofarms

Covid-19 has highlighted how centralized our global food production system is. When there is a problem with the system, the impacts are felt worldwide – and the result is empty shelves.

In a country like Oman, where 70% of food is imported, there is a greater risk from a food security standpoint. One of the ways to de-risk that is to produce locally. Enabling local food production at scale will ultimately create geopolitical security and safeguards against shocks to the system.

Challenges & opportunities?

One of the greatest barriers to vertical farming in the Middle East is that people are used to certain varieties. How can we help society embrace and celebrate other varieties of food and change their eating habits? As an entrepreneur, one of the risks you do not want to embrace is human behavioral change, because it takes time and is uncertain. It comes down to educational systems. We need to introduce society to the benefits of the new ways of farming in tackling greater water-food-energy nexus challenges. The GCC is a wealthy region with a desire to take pioneering steps. We have witnessed this both in the UAE and Oman where decision-makers and the public, in general, are willing to be early adopters and use their capital to lead the way to sparking innovation.



[FULL INTERVIEW HERE](#)

TOP 5 NEWS STORIES

[ADNOC, Taqa to Become Shareholders in Masdar with Mubadala](#)

[IEA: Faster RE Deployment Needed to Reach Net Zero](#)

[Reliance to Use Gasification Unit to Produce H2](#)

[China Plans Methane Emission Controls in Key Industries](#)

[Green H2 to Account for 20% of EU Power Demand by 2050](#)

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PODCAST THIS WEEK



TOWARDS NET ZERO: MAINSTREAMING SUSTAINABLE FINANCE



Oliver Phillips
Associate Director, Sustainable Finance – Africa & Middle East, Standard Chartered Bank

FULL PODCAST HERE

During Covid-19, there was a big focus on the E (Environment), instead of the S (Social) of ESG. I separate the G (Governance), because you cannot really finance the G (it should be embedded across every aspect of the organization).

Covid-19 led to greater recognition that there must be more adequate social infrastructure in place. This is especially crucial for developing and underdeveloped countries – many still reliant on their oil and gas resources. For example, Nigeria’s reliance means it is practically impossible for them to suddenly divest from all fossil fuels. We must look at the social impact of this sudden “switch off” – it could be catastrophic. This is where gas

comes in as a transition fuel, especially until we have battery technology up to speed or clean hydrogen at a scale. Gas can help energy security and economic prosperity in the meantime.

Putting a private foot forward

There was definitely progress at COP26 – but the devil is always in the details. We need to see the good sentiment translate into concrete actions. Therein lies the importance of the private sector mobilizing itself to push towards climate goals. It must step forward, instead of waiting for the public sector – blended finance is a key part of the climate solution.

FULL PODCAST HERE

Anish De
Global Sector Head - Power & Utilities, India’s Energy & Natural Resources Leader, KPMG



High carbon intensity equates to high risk for anybody putting in money. There are two notable risks. One is a direct risk to the portfolio, as you can be put under “no carbon” taxes or even stakeholder pressure.

The second is reputational risk, which organizations are becoming very alert to. Even if you are hitting the bottom line, your valuation and your standing in the market can go down. Worldwide, from the supply side of finance, we are seeing a great aversion to high carbon intensity projects. Finance for the transition is very important, but it cannot change overnight.

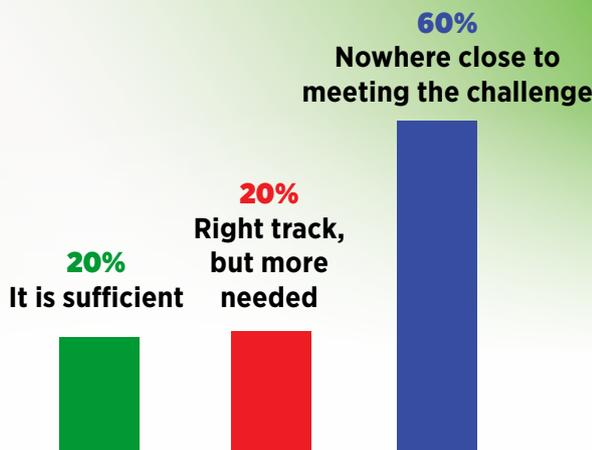
PPPs: what’s next?

We are still not seeing enough public-private collaboration and cooperation. Money flowing in from public funds is inadequate. There

must be a major scale-up that sees public and private finance come together to put money where it is needed most. And a lot of money is needed – especially in the developing world, especially those reporting significant growth. Their risk profiles differ from the developed world, so public and private sectors must unite to create the right supportive financial instruments. We are still not seeing enough public-private collaboration and cooperation. Money flowing in from public funds is inadequate. There must be a major scale-up that sees public and private finance come together to put money where it is needed most. And a lot of money is needed – especially in the developing world, especially those reporting significant growth. Their risk profiles differ from the developed world, so public and private sectors must unite to create the right supportive financial instruments.

SURVEY RESULT

COP26: Glasgow Climate Pact’s commitment to double ‘adaptation finance’ – to help lowest-income countries improve climate resilience – to \$40bn by 2025 is enough.



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INSIGHTS INTO INDIA

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Profits and Peril After Glasgow

The transformation of Denmark's Ørsted from a traditional fossil-fuel utility to renewable energy powerhouse highlights the opportunities ahead.

Bill Spindle

Council on Foreign Relations, International Affairs Fellow, India

The recent global climate summit in Glasgow ended with both hope and peril in the long-running confrontation between developed and developing countries.

The basic argument is over who should and who will pay for humanity's adaptation to a warmer climate and the energy transition needed to accomplish this. On the hopeful side at Glasgow, developed countries agreed to help finance South Africa's transition away from the dirtiest of fossil fuels, coal. This is a landmark deal for the world, one that could become a model for cooperation between rich countries that are responsible for most global warming and now want to accelerate decarbonization and poor countries that simply cannot afford to do it on their own, at least not quickly. The conference ended on a more concerning note, however. The world's biggest coal users, China and India, insisted on diluting the stated goal for coal to a "phase down" from a "phase out," which is obviously what's needed. The

clash arguably isn't quite as dispiriting as it sounds. Both China and India are world leaders in advancing renewable energy at this point. They have huge incentives, and aspirations, to push ahead even faster. But the clash over coal is a sign that tensions over who's to blame for global warming, and therefore who should pay to set things right, will dominate the climate and energy transition discussion over the next year.

The tension will then take center stage a year from now at the next global summit — hello, COP27 — in Egypt. I plan to dwell extensively on these and issues related to them here over the next year, especially as far as India is concerned.

But before that, it's critical to emphasize, once again, that the energy transition — the solution for climate change — is no zero sum game any more. Yes, governments need to help accelerate the process and accomplish some things markets alone cannot manage. That means paying more money to the poorest countries in exchange for decarbonizing. But the opportunity for

good-old capitalist and entrepreneurial juices to spur this transition is huge and growing. The first, biggest step to slowing climate change is switching electricity generation from coal and gas to wind and sun. This needs to happen fast, with coal phased out no later than 2030 and gas not far behind. Once this largest source of carbon emissions is greened up, the second-largest, transportation, can tap renewable energy via electric vehicles.

The move to renewables can seem Sisyphean, as coal consumption continues to rise in major carbon-emitting countries — including China and India. A core reason for this trend is that electric utilities aren't mandating the switch over. In fact, many are still adding coal alongside renewables.

But this transition can be successfully completed, even within a decade — as demonstrated by the Danish utility Ørsted A/S. Within ten years, Ørsted has transformed from a conventional energy company reliant on fossil fuels for 85% of its revenues to a renewable energy powerhouse, with 85% of revenues coming from non-fossil sources. The Danish energy utility now leads the world in developing and operating wind farms at sea, contracting one-third of the world's offshore wind. The company recorded profits of DKK18.1 billion (\$2.74 billion) in 2020, with many new projects in the pipeline in the coming decade — including large developments in solar power, onshore wind and green hydrogen.

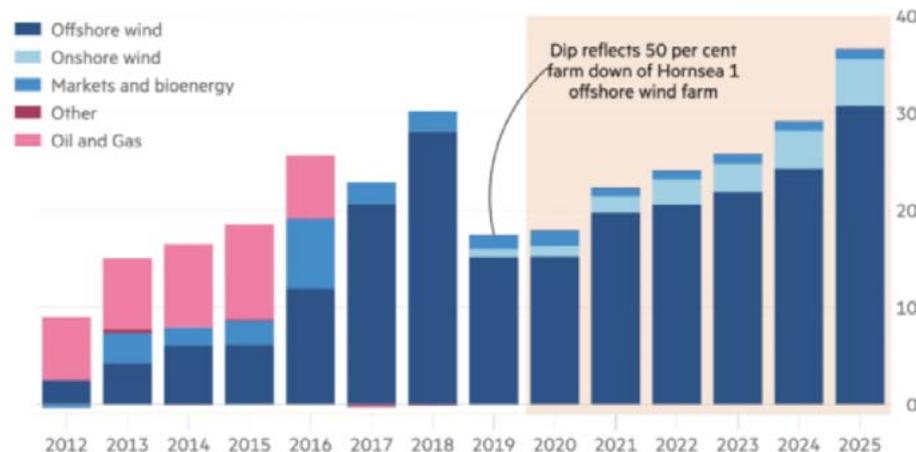
"I don't think anyone thought we would turn our generation mix upside down within only ten years," Martin Neubert, Ørsted's CEO told McKinsey Sustainability in a recent interview.

And the company continues to push further. According to a recent analysis by Fitch, Ørsted spends 75-85% of its CapEx on renewable energy projects and the rest in "markets and bioenergy."

As the U.S. begins permitting its first offshore wind farms, the majority of contracts are being awarded to the Danish renewables pioneer.

Ørsted's journey from black to green energy

Cash profits (Ebitda) by division (DKK bn)



Sources: Company accounts, Jefferies estimates

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UPCOMING EVENTS

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TWO MINUTE WARNING INTERVIEW SERIES

Tuesday /// Dec. 7th /// 12:00 (UAE)

Dr. Khalil Al Hanashi

Energy Technology Lead
Petroleum Development Oman (PDO)



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H₂ HYDROGEN FULL COURT PRESS

Thierry Lepercq

President and Co-Founder, DH2 Energy
Author of *Hydrogen is the New Oil*

Wednesday /// Dec. 8th /// 11:00 (UAE)

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