

ENERGY TRANSITION DIALOGUES

INTELLIGENCE BRIEFING

ISSUE 26, MONDAY, OCTOBER 11th

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SCROLL DOWN!

THE GREEN GAP

H2: QUICK FIXES?

DEMYSTIFYING NET ZERO

THIS WEEK'S EVENTS

BIG OIL: GREEN RHETORIC & REALITY GAP NEEDS FIXING

Gregory Ross, Head of Sustainability, Petrofac

At the crux of the oil and gas industry's decarbonization challenge is the significant gap between reality and rhetoric.

Perhaps we have underestimated some of the social or structural changes required for decarbonization, but we need to move ambitions into action. One of the solutions is setting a realistic price on carbon to drive investments. Several green technologies will not get off the ground until we have a carbon price to create a business case. Once the private sector can see a return on investment in these technologies, we will get that penetration we need.

Don't forget scope 3 emissions

Since setting net zero commitment in August 2020, amongst other efforts to transform

our business strategically, Petrofac is looking to address the scope 3 emissions embodied across our supply chain. The credibility and success in tackling scope 3 emissions in the Engineering, procurement, and construction (EPC) industry lies in parallel efforts. Reducing scope 1,2, and 3 emissions cannot be done sequentially.

The 'P' word

The only way we are going to nail the net zero challenge across all our energy systems is through collaboration. We must look for win-wins and common areas of interest amongst our peers. Whether it is collaborating around Scope 3 on an inter-company level or whether it is supporting those trying to scale up technologies. We must look at how we can form new alliances.



FULL INTERVIEW HERE

TOP TAKEAWAYS

- Reducing Scope 1,2, and 3 emissions can't be done sequentially - parallel efforts are vital.
- Many technologies won't get off the ground without a realistic price on carbon.
- Collaboration is the only way the energy industry can nail the net zero challenge.

1,000+ companies are working to reduce Scope 3 emissions – with 94% already setting science-based targets and roadmaps to accomplish them.¹

11.4X times higher was the estimated supply chain emissions compared to operational emissions in 2020.²

Sources: CDP

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HYDROGEN

MIDDLE EAST NOCS “SUPREMEPLY POSITIONED” TO LEAD THE HYDROGEN RACE

Charley Rattan, Hydrogen Business Advisor & Member of the Faculty, World Hydrogen Leaders

The transition does not have to be a massive overnight commitment: step-by-step adjustments are key. You might ask yourself: How can we repurpose reservoirs that are nearing the end of their life? Could we use them for hydrogen storage? Could we use them for carbon capture and storage (CCS)? Partnerships are imperative to making this a success. The UK has advantage over others to be a partner for the Middle East because it has a developed oil and gas industry. Some of the continental countries like Germany might come from an electrical background that might already be on the ground there, but the UK is very familiar with the nuances of engineering, pipelines, health and safety, logistics, and all the things you need to make a successful transition to a hydrogen economy.

Find your niche

I urge developers to think about the market they wish to enter and identify their niche. For example, if they want to export hydrogen to the EU, they have got a far better chance with green hydrogen than grey. But if they are targeting hydrogen exports to the Far East, this would be less of an issue. There are examples in Australia where a project started with blue hydrogen and then switched to green mid-way because of the export potential.



[FULL INTERVIEW HERE](#)

90MT

Was the demand for hydrogen in 2020, practically all for refining and industrial applications and produced almost exclusively from fossil fuels, resulting in close to 900 Mt of CO2 emissions.³

350

projects are currently under development which could bring global capacity up to 54 GW by 2030.⁴

3/4/ International Energy Agency (IEA)

TOP 5 HYDROGEN NEWS STORIES

IEA: Governments Must Do More to Reduce Hydrogen Costs

Total, Air Liquide Invest in \$1.7bn Hydrogen Fund

Silicon, Hydrogen to Emerge as ‘New Oil’ for RIL

The Barriers to Offshore Green Hydrogen Production?

The Lesser-Known Hydrogen Roadblock?

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PODCAST THIS WEEK

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DEMYSTIFYING NET ZERO TARGETS THROUGH CIRCULARITY?



Ashley Taylor
Managing Director, NetZero Middle East

FULL PODCAST HERE

The waste from end-of-life materials used for clean energy infrastructure could grow by 30 times over the next decade. Recovering those materials and reintroducing them to the value chain is complex from a logistical point of view. For one, the ecological and climate benefits of using recycled materials must be fully accounted for in the cost of the materials.

Cost really matters

All the recycled secondary materials would have to compete on price with primary materials. There is a long way to go. For one, we are not properly factoring in the potential of the huge amounts of waste coming from the solar farms that are springing up around the globe. The worry is whether the Gulf Cooperation Countries (GCC) have the capacity and technologies to recycle the waste. Perhaps given the long service life of solar PVs, batteries, and wind blades, we have some time to get those facilities in place.

GCC's Progress?

Despite progress in the GCC region, the impetus has not been taken to the next level. What is not being encouraged enough is for governments to play a clear role. So far, the role of market incentives has not been fully grasped in the region. We also do not see governments working with producers, such as enhancing their responsibility to add recyclable and biomass material into their products. At the moment, there are few producers and importers sharing the responsibility for waste management. We must also encourage more circular procurements. Companies must consider what will happen to products at the end of life. Can their parts be reused and repurposed to retain that value? Finally, there must be a change in consumer behavior, through education.

FULL PODCAST HERE

Katerina Serada

FounderSDG Hub: Center for Sustainable Economies and Innovation



When it comes to building a circular economy for plastics, the main idea is to ensure our plastic is reusable, recyclable, and compostable. Another plausible input, which has been in the air among politicians and academia, is to introduce extended producer liability and responsibility. We need to have determinable schemes. The role of digital technologies, like blockchain technologies and other applications, is also going to be crucial in helping us understand consumption and behavioral patterns. We must invest to make sure that everyone takes care of their waste.

Paradigm Shift

There are several reports, like the one by the International Resource Panel, saying we have a deficit in our resources. We need to move very quickly with circular economy practices. The conversation has moved on from recycling and is now talking about the importance of design and innovation.



Koen Rademaekers
Managing Director, Trinomics

FULL PODCAST HERE

The EU's Sustainable Products Initiative (SPI) is a huge project to look out for. We are now in the final stage of the index system – and it has a direct link to the circular economy. We are working on setting up new standards for all products for some sectors in Europe and it will have an impact on all the trade partners that the EU deals with. The project will look at eco-design, which is the energy density of products. It will also look at the environmental and social impacts of products. This means that all the products imported over the next five years must be aligned with the standards set by the SPI.

The energy crisis

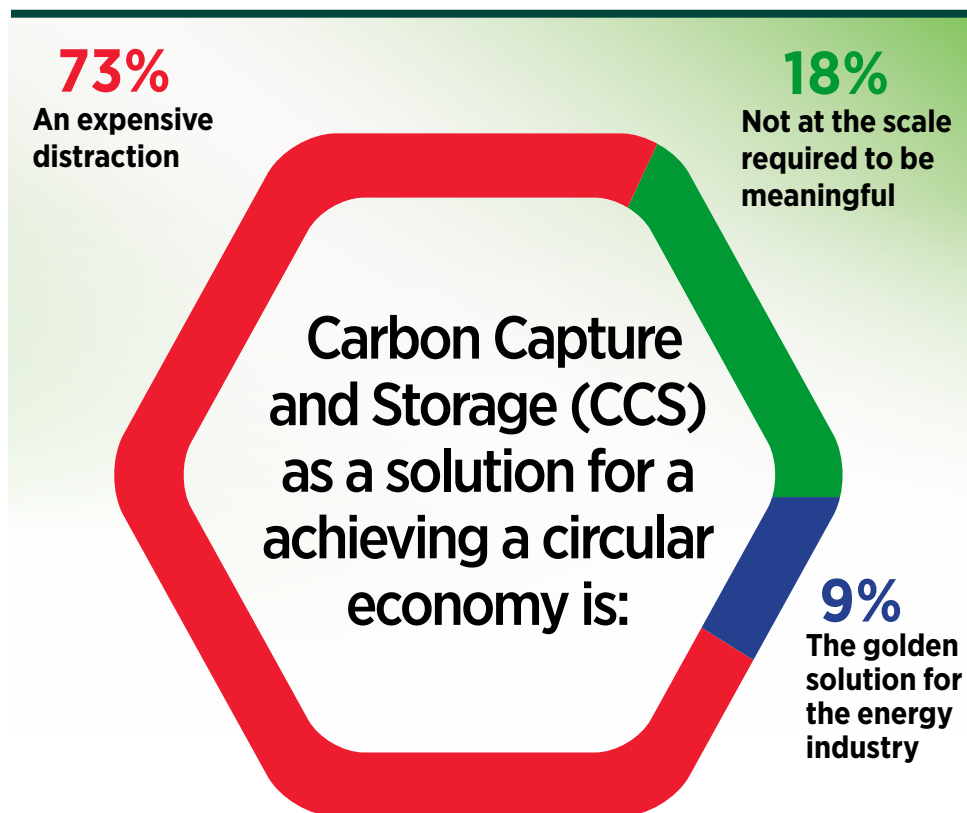
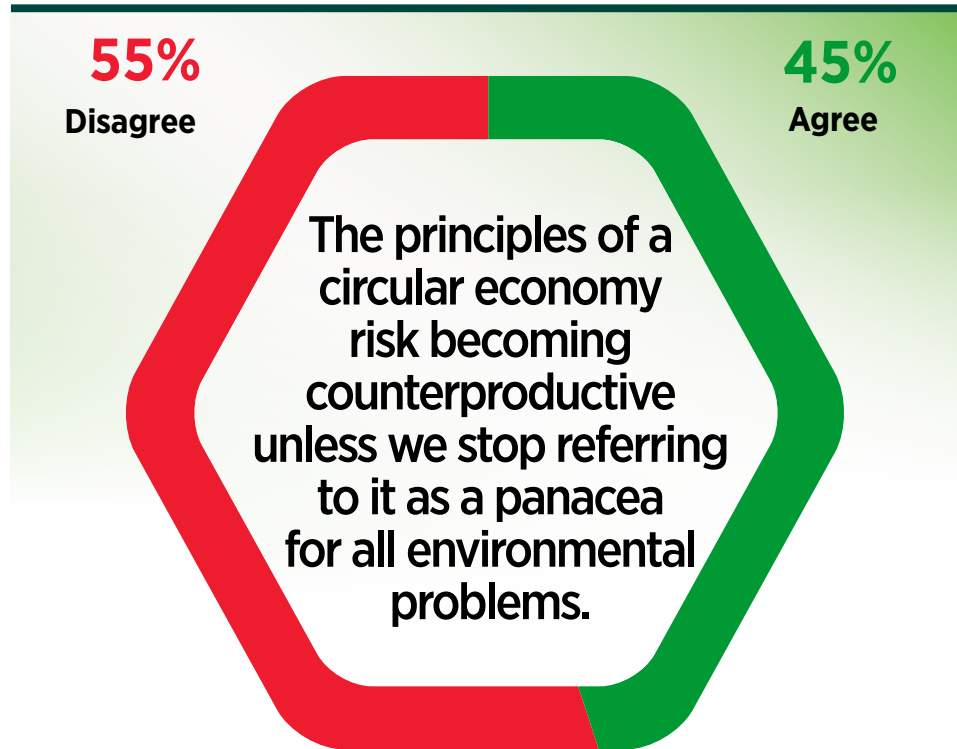
The surge in gas and electricity prices is greatly impacting the European markets. Over the past month, prices have increased by 30-50%. We are not talking about wholesale prices, as the impact for the final consumer is much higher. How can we deal with this crisis? Through the liberalization of energy markets.

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SURVEYS

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3/Journal of Industrial Ecology

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HERIOT WATT UNIVERSITY TEAM ESTEEM

@TEAMESTEEM2020



ABOUT TEAM ESTEEM

We are Team ESTEEM from Heriot-Watt University Edinburgh, a student team participating in the world's largest design and construction competition, the Solar Decathlon Middle East (<https://www.solardecathlonme.com>). Our aim is to build an innovative house of the future powered solely with solar energy. We are the only UK entry, and we have team members that are from all over the world including: Poland, Spain, Italy, Portugal, Panama, Hungary and many more. Our innovative house is powered solely with solar energy and is structurally made from locally grown Scottish timber panels (a UK first), alongside other groundbreaking technologies including AI integration and intelligent cooling solutions. We are working with internationally renowned eco-innovation companies as well as showcasing our own research spinouts: flat-pack solar water heating and a construction brick made entirely from waste products.

Our home is made from Cross Laminated Timber (CLT) panels, made for the first time EVER in a Scottish factory using Scottish timber! We hope to justify the extended implementation of CLT construction throughout the UK, while promoting local industry and reducing carbon emissions from timber transportation. This system also allows us to design for disassembly: the prefabricated home will be shipped from Edinburgh and assembled in Dubai in November 2021.

ABOUT THE SOLAR DECATHLON COMPETITION

Solar Decathlon is an international competition for university students to design, build and operate sustainable solar-powered houses. SDME 2021 will happen in Dubai, during the Expo 2020. It's an intensive learning experience for consumers and homeowners as they experience the latest technologies and materials in energy-efficient design, clean energy technologies, smart home solutions, water conservation measures, electric vehicles, and high-performance buildings.

During the final phase of the competition, the teams assemble their houses in an expo area, open them to the public, while undergoing 10 different contests, the reason why this initiative is called a decathlon.

The 10 SDME contests will follow the lines of those in previous competitions, with some customization to challenge the teams to adapt their designs to the heat, dust and high humidity experienced in the Middle East. DEWA will reward the winners in each of the contests in addition to the overall competition winners. In the SDME Competition, there are three different ways to earn points: Jury evaluation, Task completion, and Monitored performance.

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THIS WEEK'S EVENTS

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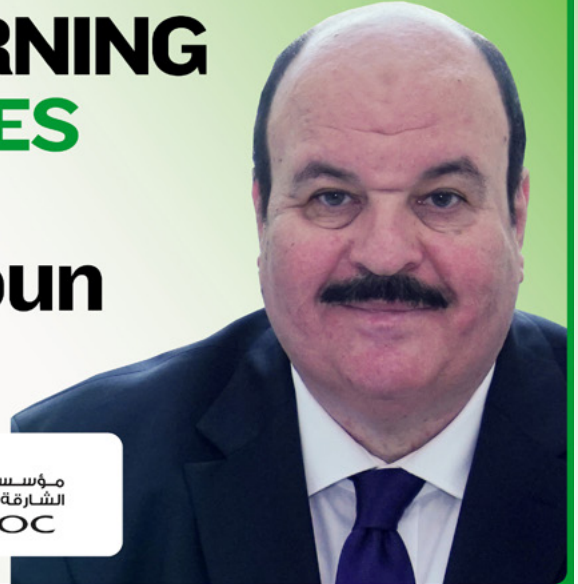
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TWO MINUTE WARNING INTERVIEW SERIES

Tuesday /// Oct. 12th

Mohamed Zaitoun

Founder & CEO
Zaitoun Green Shipping



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HYDROGEN FULL COURT PRESS

Tim Karlsson

Executive Director
IPHE

Wednesday /// Oct. 13th /// 11:00 (UAE)



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