

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

# ENERGY TRANSITION DIALOGUES

# INTELLIGENCE BRIEFING

ISSUE 16, MONDAY, JULY 12<sup>th</sup>

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**SCROLL DOWN!**

**HYDROGEN EXPORT GOALS?** **GREEN FINANCE'S MOVE?** **GOING AROUND IN CIRCLES** **NEXT WEEK'S EVENTS**

## CIRCULAR ECONOMY

# MUST RETHINK PRODUCT DEVELOPMENT

**Pascal Chalvon Demersay, Chief Sustainability Officer, Solvay Group**

**A** circular economy is not only about waste management, but also about partnering for a new ecosystem and rethinking product development. Closing the loop is an integral part of our One Planet Initiative.

We believe strongly in the fact that a circular economy is about disconnecting economic growth from the use of non-regenerative materials, either directly or through the use of bio-source materials. Our aim is to more than double the turnover that we are doing through a circular economy by 2030. To achieve this, there are three enabling actions that must be done. One is education and awareness and the second is understanding that a circular economy is a holistic approach that touches on all aspects of the supply chain. And the third is about alliances and partnerships. Responsibilities should not lie with policymakers or corporates alone – it is about cooperative action. So far, we have issued 28 different concrete projects related to greenhouse gas emission (GHG) reduction, from photovoltaic (PV) farms to biomass facilities.



**FULL INTERVIEW HERE**

## TOP TAKEAWAYS

- A circular economy is about creating an ecosystem and rethinking product development, not just better waste management.
- We aim to more than triple our current sales of products based on renewable or recycled resources to 15% of turnover.
- We aim to have 28 projects that support a circular economy online by 2023, in order to remove 2mn t/CO<sub>2</sub> per year.

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# HYDROGEN EXPORTS SHOULDN'T BE ULTIMATE GOAL

## HYDROGEN

Andrew Horvath, Global Group Chairman, Star Scientific

**A** concerning part of today's hydrogen debate is the big focus on supply, while the demand side is overlooked. There appears to be a growing notion that hydrogen exports are the end goal – but they are not.

Almost every country can supply enough renewable power, from floating wind or other renewable sources, for electrolysis. In a recent memorandum of understanding (MoU) with the Philippines, Star Scientific was able to demonstrate to the government that in the southwest quadrant of the country, there is more than enough energy from floating wind to provide them all the hydrogen they are ever going to need. In fact, they could export some. This is the case for many countries, so activating demand cannot be overlooked.

### CCS: friend or foe?

Standard and universal regulations will help the hydrogen market evolve faster. A strong storage model that allows for mass storage and transportation is another useful development. And we need to move beyond carbon capture and storage (CCS); it is like producing hydrogen with a ball and chain around it. We need to either find a way to use the carbon again or alternately, move to the model that we all know we are going to end up at: green hydrogen.

**“THE MIDDLE EAST CAN BE ONE OF THE WORLD’S LARGEST EXPORTERS OF HYDROGEN IN THE FUTURE, AS IT CURRENTLY IS WITH HYDROCARBONS.”**



**FULL INTERVIEW HERE**

## HERO

Hydrogen Energy Release Optimizer is Star Scientific's award-winning innovation with the ability to produce unlimited, affordable, safe, and reliable energy with zero emissions by converting hydrogen and oxygen into heat and water.<sup>1</sup>

## \$50BN

to \$90bn is the potential of Australia's low carbon hydrogen export industry in 2050.<sup>2</sup>

## TOP 5 NEWS STORIES

[Taqa, Abu Dhabi Ports to Develop 2GW Green Ammonia Facility](#)

[Shell, Uniper Sign Hydrogen MoU](#)

[EU's Biggest Hydrogen Electrolysis Plant Unveiled](#)

[Eni, Sonatrach Partner for Hydrogen Production](#)

[US Gas Suppliers Bet Big on Hydrogen](#)

<sup>1</sup>/Star Scientific <sup>2</sup>/Wood Mackenzie

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## PODCAST

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## THIS WEEK GREEN FINANCE'S NEXT MOVE?

**Tim Buckley, Director of Energy Finance Studies –  
Australia & South Asia, IEEFA****FULL PODCAST HERE**

**The shift in the global capital and financial markets in the last six months is nothing short of staggering. There were 60 new or improved formal coal-exit policy statements introduced – a 62% rise in 2020.**

Of this, 40% came from greater Asia. Historically a laggard in this space, Asia has been coming out with new and ambitious targets: almost every insurer in Korea now has a formal coal-exit policy. We see the same movement in Japan, Australia, and other countries in the region. What is next? The cost of capital has shifted dramatically away from brown or grey and towards the green markets. As a result, we will see capital flight from stranded assets. There is nothing like a \$50trn wall of global capital moving to solve climate change. That is what we need – and it is possible.

**“THERE IS NOTHING LIKE A \$50TRN WALL OF GLOBAL CAPITAL MOVING TO SOLVE CLIMATE CHANGE.”**

**G7 and China's BRI?**

If you look at the investment in the global power sector from China in the last four years, there has been a drop of 90-95% relative to the record highs that we saw back in 2016 with the Belt and Road Initiative (BRI). China has dramatically pulled back from what at the time was massive financing of coal-fired power plants in many countries worldwide. And Bangladesh just announced that they canceled their plans for ten coal-fired power plant developments. This is partly due to Covid-19 and a recognition that Bangladesh is one of the most vulnerable countries [to climate change] and cannot afford subsidized coal-related finance from China.

**FULL PODCAST HERE****Oliver Phillips, Associate Director – Sustainable Finance  
Standard Chartered Bank**

**In the absence of cohesive public sector action, the private sector must step up its climate action. In the finance community, banks worldwide are setting large targets for financing renewables, clean-tech, and sustainable infrastructure.**

For example, we have set a target of \$35bn for clean-tech and \$40bn for sustainable infrastructure with a great focus on emerging markets. We see similar pledges from other banks. The private sector is moving in the right direction, but we cannot do it all alone. Today, 'green' capital is not treated any differently from 'brown' capital. Evaluating the credit risk of a renewable project is sometimes much more complicated than an oil and gas project. This is partly because there are many more years of historical data to go through in order to understand the risks around financing those projects.

**Beyond low-hanging fruit**

As credit risk and climate risk start to merge, there must be even more consideration about the impact that a project is having on our climate – and that the climate is having on the project. Currently, a lot of money is flowing into green technologies and renewable energy sources, and the other low-hanging fruit. In the Middle East, we are seeing many projects coming online and massive amounts of public financing being given to renewable energy initiatives. While this is good, there are two key areas that we must focus on with regards to capital expenditure. One is emerging markets in Africa and Southeast Asia, as these are markets that need to be bridging the gap between the energy transition and energy security. The other is hard-to-abate sectors. There must be more effort made towards incentivizing the decarbonization of these sectors. It will be costly and will involve reinventing the wheel in some cases.

**\$2.8BN**

is the amount committed by the G7 countries to the developing countries to stop using coal.<sup>1</sup>

**50%**

of the world's coal power plants are now running at a loss.<sup>2</sup>

**\$40TRN**

has been pledged by the G7 as part of the Build Back Better World (B3W) initiative.<sup>3</sup>

1/Reuters 2/Carbon Tracker 3/Reuters

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# PODCAST



**FULL PODCAST HERE**

**Dr. Sascha Lafeld, Head of Carbon Offset & Green Energy Services  
ClimatePartner**



**We have been disappointed by global COP events many times. But the Paris Agreement had a real impact.**

Although it did not warrant any sanctions for non-complying nations, at least it set the framework, which was necessary for all the other initiatives that followed. Science-based targets for the corporate sector are crucial because it translates the

targets of the Paris Agreement into tangible actions. We have legislation on regional levels, for example, the EU finally agreed to make the carbon reduction target of 55% by 2030 legally binding. What are the forces required to prompt a science-based approach to climate change? We need national and regional legislations, continued environment activism, and a set of science-based targets to give corporates a framework.

## SURVEY ANALYSIS

# CIRCULAR ECONOMY: GOING AROUND IN CIRCLES?

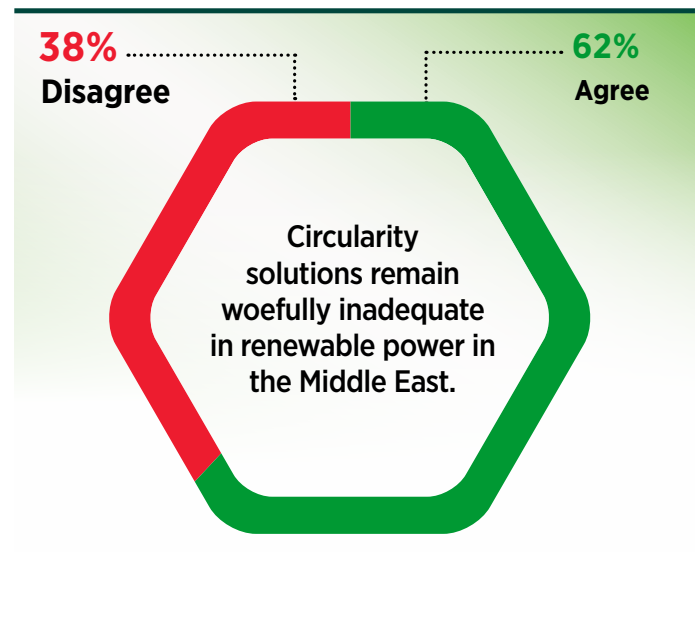


**Michelle Meineke  
Director, Energy Transition Dialogues**

**R**easons to invest in a circular economy abound. Doing so for five key sectors alone – cement, aluminium, steel, plastics, and food – could cut CO<sub>2</sub> emissions by 3.7bn tons in 2050, according to the Ellen MacArthur Foundation.

This is equivalent to eliminating current emissions from all forms of transport. Take a moment to imagine zero emissions from any form of transport you may use... trains, planes, cars, motorbikes, trucks, and more. A circular economy also offers a \$4.5trn economic opportunity by avoiding waste, while also creating business growth, plus employment opportunities. In the Gulf Corporation Council (GCC) alone, cities could save \$138bn and 148mn tons of CO<sub>2</sub> emissions between 2020 and 2030, according to Strategy&. Against a backdrop of stable if low oil prices and the economic strain of the pandemic – the International Monetary Fund (IMF) calls it the worst economic period since 1930 – you would expect such savings to be coveted. So, you would expect boardrooms around the globe to be snapping up every DIY book on circular principles so they could inject this economic boost into their balance sheets. Because if the environmental argument does not do it for you – and it should – then the economic incentives are certainly there. Yet implementation has long lagged, and often circular principles are amateurishly linked to reducing waste alone. The conversation has only really half started – and even then, there are splutters and coughs of hesitation and confusion.

Survey source – ETD



**In next week's Intelligence Briefing, the three guests on our weekly podcast – every Wednesday at 1pm UAE – will share their thoughts on what must be done to bring this holy grail to energy and environmental security out of the shadows.**

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# INSIGHTS INTO INDIA

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## Two Titans

### Fossil fuel heavyweights, meet green energy...



**Bill Spindle**

Council on Foreign Relations, International Affairs Fellow, India

**Y**ou know green energy has arrived in India when the country's top fossil fuel magnates take the plunge. That's now happened, with two men who built empires on coal, oil, and gas in India suddenly leading the renewables charge. Is this a good thing? Or, perhaps better put, how good a thing is this?

First came Gautum Adani, who has skyrocketed into the ranks of the world's richest in lockstep with the rise of Prime Minister Narendra Modi, first in their shared home state of Gujarat and, since 2014, on the national and global stage. Adani added a renewables energy arm to his coal-ports-and-power empire in 2015, as the Modi government launched a major green energy push. Since then, Adani Green has ballooned into India's biggest solar energy company.

Now India's heavyweight of heavyweights, Mukesh Ambani – who cracked the Forbes' ten richest in the world list this year – has commandeered the bandwagon. Ambani plans to plop down \$10bn over the next three years to make his oil, gas, and teleco colossus, Reliance Industries, a leader in...well, every aspect of the renewable economy. This includes solar panel manufacturing, solar farms, helping homeowners and small businesses put his solar panels on their rooftops, industrial scale battery production, and making electrolyzers to produce hydrogen fuel from water using renewable energy. The \$10bn is almost certainly just a down payment, to be followed by much more investment.

Overstating these guys' grand ambitions is impossible. They've long cannily aligned their interests with Modi. And Modi is very interested in green energy. He's vowed India will grow renewables ten-fold by 2030, a goal that requires India to more or less add more renewable energy capacity than has



**“MODI HAS VOWED INDIA WILL GROW RENEWABLES TEN-FOLD BY 2030, A GOAL THAT REQUIRES INDIA TO MORE OR LESS ADD MORE RENEWABLE ENERGY CAPACITY THAN HAS BEEN BUILT IN THE ENTIRE COUNTRY TO DATE EACH YEAR ON AVERAGE BETWEEN NOW AND THEN.”**

been built in the entire country to date each year on average between now and then.

Modi's government is under pressure to show a strong climate commitment – if not unveil a “net-zero” emissions target – going into a major global climate conference this fall.

India had been building renewable energy capacity at a world-leading pace a few years ago, but progress has bogged down during the Covid-19 crisis. Lockdowns last year, and recently the terrible pandemic wave this spring, have delayed and hamstrung dozens of big projects.

India almost certainly won't reach Modi's first goal of installing 175GW by the end of this year. Analysts and industry officials are already concerned the 450GW goal could wind up beyond India's grasp if the project pipeline isn't turbo-charged soon. The Adani and Ambani juggernauts have the wherewithal to dramatically re-accelerate renewables in India.



**FULL ARTICLE HERE**

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# THIS WEEK'S EVENTS

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### TWO MINUTE WARNING INTERVIEW SERIES

Tuesday /// July 13<sup>th</sup> /// 12:00 (UAE)

#### Allyson Anderson Book

Vice President of Energy Transition  
Baker Hughes



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## ENERGY TRANSITION DIALOGUES



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### HYDROGEN FULL COURT PRESS

#### Richard Power

Partner  
Clyde & Co

Wednesday /// July 14<sup>th</sup> /// 11:00 (UAE)

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