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Energy Transition Dialogues

Consultancy Intelligence Publishing

INTELLIGENCE BRIEFING

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SCROLL DOWN!

CIRCULAR PUSH PLUGGING THE GAP COP'S NEXT CHANCE THIS WEEK'S EVENTS

LNG: China secures the reins

Dr. Xavier Chen, CEO, CN Innovation & President, Beijing Energy Club

China's demand for LNG and gas will continue to rise as the world's biggest energy consumer sees them as major fuels in its future energy mix, not as transition fuels.

China became the world's top importer of LNG last year – surpassing Japan's leading position – with LNG from Australia, Qatar, the US, and others. China also became the world's largest gas importer around three years ago, with pipelines from Central Asia, Russia, and Myanmar. Earlier this year, the turmoil in Kazakhstan was a genuine concern for the Chinese population and the Russian intervention was a huge help for China's gas supply. China's appetite for gas will grow until we see the peak around 2040. China has also been making some big moves in support of the energy transition for several years, including the development of new energy sources. For example, government officials proposed that the 14th Five-Year Plan focus more on green industrial development and green energy development.

Russian-Ukraine crisis: *Asia's view?*

The situation is very worrisome. From an Asian perspective, we want to avoid war and focus on cooperation, peace, and recovery from Covid-19. This crisis [Russia and Ukraine] is part of a new geopolitical game – all countries are involved, not just those directly concerned. It could also impact all financial markets. Russia's President Putin was recently in China and released several agreements. But we do not know if there was an agreement reached between China and Russia in relation to Russia and the Ukraine, i.e., what would be China's position? China relies on imports to meet more than 70% of its energy needs, so any price hikes will impact the Chinese economy.

#1
China is the world's largest energy consumer.

2040
is when China's growing demand for gas and LNG is expected to peak.

5.1%
growth is expected in China this year, following a robust 8% last year, according to the World Bank.

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Getting a Circular Economy on track

Viridiana Bello
Sustainability Consultant
Apoidea

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More than half (55%) of GHG emissions are emitted from what we consume and produce, according to the World Economic Forum (WEF).

Yet, most of the time, we only focus on the energy transition to tackle climate change. We must shift our mindset on consuming, producing, and/or designing products to develop and support a circular economy. Recycling alone is not the solution. Currently, all products are designed to be made, used, and thrown away. It is essential that we create awareness programs to highlight our impact on the environment.

Funding change?

The transition to a circular economy will cost and therefore, we must create business value. Many consumers are willing to pay a little more to avoid harming the environment. Still, as businesses, we must give them the opportunity to access these products. Some businesses believe it is difficult to implement a circular economy, but the impact of small changes over time add up. This is especially timely as the Covid-19 pandemic has made the public increasingly aware that businesses need a far more sustainable approach.

Bolstering developing economies?

Huge opportunities to help build developing economies' outlook exist and many solutions have already been created, such as hydrogen cells and recyclable materials. But sometimes, these are not scaled up at an industrial level due to a lack of investment. We often have solutions that we do not even know exist. We need to build the bridge between the problem and the solution by creating links between stakeholders and countries. Countries cannot waste time trying to recreate available technologies.

What is a circular economy?

We must transform every element of our take-make-waste system: how we manage resources, how we make and use products, and what we do with the materials afterwards. This is what will create a thriving circular economy, which can benefit everyone in Oman and beyond. A circular economy provides tools to tackle climate change and biodiversity loss together, while addressing important social needs. It also generates prosperity, jobs, and resilience while cutting GHG emissions, waste, and pollution. Other definitions incorporate carbon. For example, Saudi Aramco describes a circular carbon economy as a closed loop system for managing and reducing emissions, involving 4Rs: reduce, reuse, recycle, and remove.

Sources: Oman Energy Outlook, Ellen MacArthur Foundation, Saudi Aramco

300mn
tons of plastic waste are generated worldwide every year – equivalent to the weight of the entire human population of 7.8bn people.[1]

50%
of all plastic produced is designed to be used only once — and then thrown away.[2]

100bn+
tons of resources enter the economy every year – everything from metals, minerals, and fossil fuels to organic materials, like plants and animals. Yet just 8.6% is recycled and used again.[3]

1.5
Earths are needed in terms of resources by 2050 if we do not change how we live.

Sources: [1] Unep; [2] Unep; [3] World Resources Institute (WRI)

"Businesses can reach out to one another, but we need an international body to push knowledge and technology sharing."

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Developed & Developing Nations: The realities of the gap

Patrick Horend
Chief Investment Officer & Partner
Climate Endowment

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From a financial perspective, it is easier to decarbonize systems in emerging markets and developing economies (EMDEs).

But the issue is that emerging markets can carry higher investment risks, which reduces the pool of capital available. For instance, some EMDEs have low credit ratings and a detrimental corruption index. European investors could be ready to invest $1bn in hydropower in Europe, but they would only commit to $100mn-150mn in hydropower in India, for example.

Carbon price: Worth the effort

The carbon market is a complex problem, but it offers a clear solution when it comes to the gap in finance – and it is achievable. For example, the European Union's carbon credits cost around €95/t, while stakeholders working in emerging markets to capture carbon have estimated the production cost to be €3-€6/t. Suppose we can find a way to make carbon credits fungible from one country to another and ensure each country achieves its net zero targets? In that case, we could unleash huge amounts of investments from western corporations for projects in emerging markets.

"European investors could be ready to invest $1bn in hydropower in Europe, but they would only commit to $100mn-150mn in hydropower in India."

A solution has not yet been adopted; we have struggled for many years to calculate the value of carbon credits. However, we are there – standards are being set. A few countries have implemented successful regulations, which provides good examples to others of how it can work in a regulated market. Looking ahead, cross border trade will be the biggest challenge – recognizing each other's carbon credits and making sure no country or company double counts.

Finance hole for net zero

We do not see enough capital going into net zero solutions. For example, investors' hesitancy to invest in hydropower when we offer such opportunities is always astonishing. The pro-climate tone from the top decision-makers has not filtered down to concrete KPIs, decision matrixes, or to those on the frontline. The message to invest in a beneficial carbon power plant has not gotten through, for example.

65
carbon pricing initiatives now exist worldwide, up from just two in 1990.[1]

21.5%
of global GHG emissions were covered by these 65 carbon pricing initiatives, which include carbon taxes and cap-and-trade schemes.[2]

$4trn
in annual clean energy investment worldwide is needed to reach net zero by 2050. This means current investments must more than triple by 2030.[3]

Sources: [1] World Bank; [2] World Bank; [3] International Energy Agency (IEA), Net Zero

"In the EU, carbon credits cost around €95/t, while stakeholders working in emerging markets to capture carbon have estimated the production cost to be €3-€6/t."

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GOOD COP, BAD COP

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

The last global climate conference turned out to be both. That makes the next one even more important.

Just months after the last big global climate conference, it is not too early to brace for the next one. It will be a doozy. Why?

Tensions between rich and poor nations are rising again. Without long overdue action by the developed world and a dose of political realism in the developing world, the growing rancor could torpedo global climate diplomacy, as has happened before.

This November's gathering will pick up right where last November's left off — with India, backed by China, putting its foot down over just how much the developing world will sacrifice to cut emissions without more help. The twelfth-hour rift at the 26th Conference of the Parties (COP26) last year came over whether the final agreement would announce a "phase out" of coal, as the Western drivers of last year's conference wanted, or, as things ended up, merely a "phase down".

This literally brought tears of frustration to the eyes of Alok Sharma, the British politician who presided over the conference. But India's insistence on the "phase down" wording — with the world's largest coal user, China, cheering it on — was a shot over the developed world's bow.

It underscored the overall ambiguous outcome of the gathering, which had been billed as the last chance for the world to get real about addressing climate change. That billing now better applies to this year's gathering. The upcoming COP27, to be held in the Red Sea resort of Sharm el-Sheikh, really will be the last chance for global climate diplomacy to play a leading role in solving the problem of global warming.

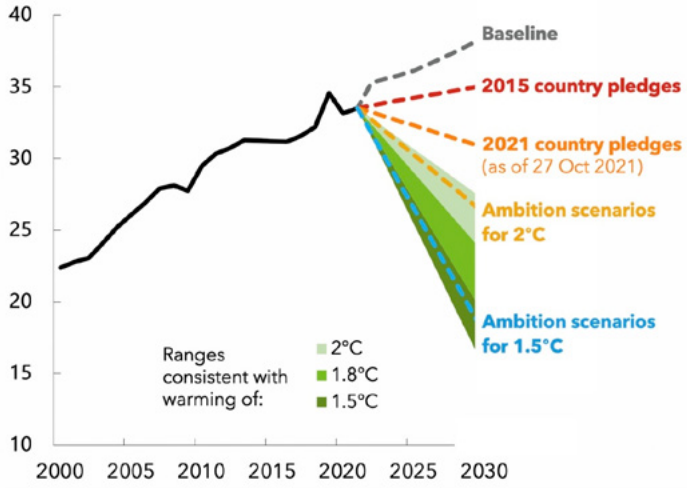
The last COP was hardly a failure. Without rattling off a laundry list of achievements, the most important was the simplest: For the first time, the entire world stated, officially and out loud, that fossil fuels are the root of the problem.

"Without long overdue action by the developed world and a dose of political realism in the developing world, growing rancor could torpedo global climate diplomacy, as has happened before."

Not yet on track

More ambitious pledges to curb carbon emissions are needed to meet Paris Agreement temperature goals by 2030.

(annual global emissions, in billion tonnes of CO_2)



Sources: Intergovernmental Panel on Climate Change (2018, 2021) and IMF staff calculations.
Note: Shows energy-related CO2 emissions, excluding international aviation and maritime.

The conference also worked out many nitty gritty details for precisely how to uniformly and transparently measure the ratcheting down of our collective carbon emissions that must begin now and accelerate rapidly after 2030. Finally, the conference began to truly address how this decarbonization effort gets funded — or, not to put too fine a point on it, when and how much the developed nations will pony up, making good on a promise they long ago made and so far have failed to come through on.

Glasgow also included the ramping up of "ambition," particularly on the part of developed nations. This means they promised to do more than they had previously promised. Many countries laid out "net zero" pledges. These are vows, albeit non-binding, to cut carbon emissions to the point where they are taking as much carbon out of the atmosphere each year as they spew into it by a certain date — usually 2050, but 2060 in the case of China and 2070 for India. While not to be dismissed, all this amounts to zilch if collectively the world does not begin actually reducing GHG emissions, starting very soon.

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THIS WEEK EVENTS

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TWO MINUTE WARNING
INTERVIEW SERIES

Daniel Carter

Vice President of Decarbonisation and New Energies
Wood

TUESDAY /// FEB 22nd /// 12:00 (UAE)

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WEDNESDAY /// FEB 23rd /// 13.00 (UAE)

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Clean Hydrogen: Key Steps to COP27?

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