

Energy Transition



GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

ISSUE 64, MONDAY, NOVEMBER 14th

SCROLL DOWN

COP27 SPECIAL REPORT EXCLUSIVE SOUNDINGS EVENT THIS WEEK

We Should Not See Renewables and Hydrocarbons as a Zero-Sum Game!

**H.E. Sunjay Sudhir, Ambassador of India to the UAE,
India's Permanent Representative to IRENA**

Renewables will need a lot of investment, but till the time we reach there, the reliance on hydrocarbons will continue. So, we should not see renewables and hydrocarbons as a zero-sum game. We should look at cleaner hydrocarbons, as well as natural gas as an important fuel which can fuel the transition to a better world. That is very important.

Energy security is a long-term concept, and one that which everybody must work together. What we have been always saying is that energy should be there at affordable prices and the prices should be such which balance out the interests of both the producers and the consumers, so that the consumers get energy at affordable prices - at good prices - whereas the producers get the prices which incentivize further investment in energy, whether it is hydrocarbons, whether it is crude or gas or even the investment going into renewables.



CLIMATEPENPAL.ORG



CONTINUED H.E. Sunjay Sudhir, Ambassador of India to the UAE,
India's Permanent Representative to IRENA

Lessons on energy import dependency?

Yes, India still imports more than 80% of its oil and more than 50% of its gas. Unfortunately, we are not as well-resourced in terms of hydrocarbon reserves. But with about 1.4 billion population, and being the fifth largest economy, this means huge requirements for our economic development and energy security is a very high priority. We have been doing diversification in terms of sourcing for a very long time. We have made it a conscious policy for ourselves to diversify our hydrocarbon sources. Our ten different sources of crude imports go across the globe. They are Iraq, Saudi Arabia, UAE, Nigeria, Venezuela, Kuwait, UAE, Mexico, Angola, Kazakhstan, and Russia. It's a very diversified basket. In terms of LNG, our top fuel sources that I would share is Australia, followed by Qatar and then the US, Russia, Malaysia, Nigeria, Indonesia. Not only that, so we also have acquired assets overseas and we now have about 52 hydrocarbon assets with a very

impressive geographical dispersal in India. We also have a very ambitious program for Strategic Petroleum reserves, with the first phase already completed and we have recently launched phase two.

Today the world is all about partnerships.

I think COVID has taught us a big lesson that on our own, there's nothing much we can achieve unless we work together. Similarly, for global issues like climate change, we need to work together, but we need to have an approach which is realistic, and which takes into consideration the challenges and the priorities of majority of the global population. I think that's very important. India has always been very happy and very keen to work with countries across the globe and we will continue to take that leading role, with our Prime Minister himself as a big champion of green energy and smooth energy transition.

**Paraphrased Comments*

[FULL INTERVIEW HERE](#)

SPECIAL REPORT

ENERGY MARKETS OUTLOOK 2023

Certainty is the Only Cure for Market Volatility

[CLICK HERE](#)

Series Supported By:



INSIGHTS

Carbon offsets get more scrutiny under Kerry's climate plan



Bill Spindle
Climate & Energy Editor
SEMAFOR

Sharm El-Sheikh — U.S. Climate Envoy John Kerry's new carbon offset plan to help developing countries shift away from coal through the purchase of carbon credits was met by skepticism from climate advocates, who are worried it will encourage marketing spin in what's known as greenwashing.

The "Energy Transition Accelerator," launched by Kerry at the COP27 summit on Wednesday, aims to convince big companies to buy carbon credits generated by developing countries as they close down coal-fired power plants.

Flanked by climate philanthropies, corporations and civil society figures from Africa and Latin America, Kerry announced a voluntary plan to allow companies unable to immediately eliminate all their own greenhouse gas emissions to pay instead. The money would go to developing countries in exchange for the emissions cuts they achieve by closing the coal plants. The market for carbon offsets has grown dramatically in recent years to about \$2 billion. It could grow 15-fold by 2030, and perhaps 100-fold by 2050, according to the consultancy McKinsey & Co.

But critics have long argued that the mechanism allows "greenwashing" by companies, including claims by major fossil fuel corporations that they are aiming for net zero emissions while backing new fossil fuel projects. "There's a real question of whether the quality of these offsets can be credibly verified," said Amanda Starbuck, a program director at the Sunrise Movement.

Kerry alternated between soaring ambition and defensiveness in spearheading the initiative, anticipating the criticism of an effort that he acknowledged needed fleshing out and would face daunting challenges. "We're all here in Sharm El-Sheikh to win the battle against the climate crisis, not to give in to business as usual," said Kerry, who is widely rumored to be attending his final global climate summit.

BILL'S VIEW

Kerry's announcement is one of several efforts by developed countries to steer the discussion towards the potential for private finance to supply an annual \$2.5 to \$3.6 trillion annually that Kerry said will be needed to help developing countries transition to clean energy. But those needs far exceed what even the wealthiest developed countries can provide, making the involvement of private investors critical. And private funds are flowing only very haltingly.

A group of developed countries, including the U.S., is also in negotiations with Vietnam and Indonesia to arrange direct funding to close down coal plants in both Southeast Asian nations. Those talks are based on an earlier deal to provide South Africa with \$8.5 billion in funding to close a major coal plant. But that plan is proceeding slowly and has come under criticism for imposing new debts on South Africa. Vietnam and Indonesia are reportedly balking at similarly constructed schemes as hopes dim for a deal before the conference closes.

Meanwhile, Kerry has also taken up the cause of reforming giant global multilateral lending institutions such as the World Bank and International Monetary Fund. Developing countries are clamoring for the banks to loosen their lending guidelines to enable more loans at lower interest rates at a time when many developing countries are overwhelmed by existing debts.

That effort, too, is mired in the bureaucratic and political restraints of the banks. They recently announced some incremental reforms that were criticized as wholly inadequate by developing countries at the climate summit.

[CLICK HERE TO READ FULL ARTICLE](#)

Jørg Aarnes

Global Lead – Hydrogen & CCS
DNV



Outlook for Hydrogen Towards 2050

We are seeing that very little hydrogen is traded across regions even in 2050, but a significant part of ammonia is being traded across regions in 2050. If you are creating ammonia, it is not going to be necessarily cracked back to hydrogen because it may be difficult to compete with the local market. In essence, you are producing green ammonia that will need to be used as an energy carrier. This is what needs to be looked at from the mid-term. If you are going to be exporting to Europe, you might want to export green ammonia but then you need to be competitive with local users. If you're going to export hydrogen, then you might need to think in terms of having a pipeline in place. And of course, that's a big investment. And then you need to look at the possibilities of coordinating multiple producers that could be delivering hydrogen along that pipeline.

What still needs to be addressed for hydrogen to drive decarbonization?

There is a market failure in the system today that will need to be addressed and they will need to be addressed through policy and regulatory systems. At present, regulations are lacking, which could stimulate the production side and the demand side. There is also uncertainty in the market today about how hydrogen can be exported and what the requirements will be and how that can be certified. Both regulations and policy have an instrumental and enabling importance in the development of the hydrogen economy. It will not be only just by itself and needs support.

Are there mechanisms being developed for demand security?

The whole value chain needs to be looked at in context. There's uncertainty on all ends and I think there are different mechanism out there. For the demand side, the type of contracts for different measures will be critical to ensure that there will be buyers for hydrogen. The producers need certainty that there will be an offtake and types of contracts for different measures will be equally important for them. One example is the H2 global mechanism that they are introducing in Germany, where they are establishing a state-owned entity that will be managing contracts with producers and with buyers. The intent there is for them to have long term contracts with the producers. So, there will be a competition here. And those that will be able to deliver higher than the lowest price will be getting the contracts and the same thing on the buyer side. Those that will be able to pay the most for the hydrogen will get the contracts, they will be long term contracts for the production and then they tend to have short term contracts for the buyers. That state-owned entity will close the gap and pay the difference there. I think this is a type of mechanism would be needed, and we need to provide that type of investors' certainty both for the producers but also the users.

Will pipelines play a role to accelerate hydrogen in scale?

There's a lot of knowledge that is being built today. We are seeing some developments where you are in the process of building hydrogen pipelines today or converting existing pipelines. We will see the first one of those being developed over the next three to four years. But in the longer term, there needs to be a road map on where existing pipelines can be replaced or undergo retrofitting and where new pipelines need to be built.

Is the sticking point investment or technology?

It is a bit of both. In some cases, it is an investment issue. For example, for blue hydrogen, once you get a carbon price in place, then it becomes more effective to implement CCS for those with existing hydrogen production and scale quite quickly with the caveat that it takes five to ten years to develop a CCS project. There is a time element there – and then you can have a clear business case for green hydrogen. It needs to be built to be able to scale it to the market or the size that is needed. And that is a bit of an investment case. And the sticking point there is on the offtake side. In some large-scale projects, one of the real challenges is to get the buyers on board with a long-term view to be able to unleash those investments. This is where we need some policy mechanisms that is not just about giving subsidies within the next couple of year but giving the predictability over that time that this is a sound investment from a long term as well, and that is where the policy really can make a difference.

Are high gas prices impacting the investment into the type of hydrogen?

It has multiple impacts to the hydrogen economy. The fact that the gas price is high creates more uncertainty around the investment case for blue hydrogen because it is more expensive than green hydrogen today. It is expected that the gas prices will come down in the longer term. It takes five to ten years to develop a CCS project. Once you sort of get that off the ground, the gas prices will go lower, and it might be the case where blue hydrogen is still just half of the cost of green hydrogen. So that is a scenario. But there is investment uncertainty on the blue side. It also impacts the green side in the sense that right now we are strained on gas.

Is clarity on national emissions trading important?

It is really a complex picture because one of the things that is happening right now is the development of certification schemes for low-carbon hydrogen. The intent is to be able to trade credits for that or have a green premium on products. The complexity here is, it is not really all about sort of the national emission targets that you have. You can have national emission targets in the UAE, Egypt, in Germany or in other countries. And for instance, you are producing blue hydrogen in the UAE and exporting that to Europe, then you will be contributing to reducing emissions in Europe, but you will have an additional emission from that in the UAE. It needs to be seen from the various emissions perspective.

*Paraphrased Comments

Series Supported By:



REPORT

POWER SYSTEM TRANSITION: The criticality of distribution reform

Our report No. 042 stated that China's distribution network is in urgent need for upgrading and reform if the power sector is to play its enabling role in energy transition. This report explains why.

Importance of distribution network in energy transition

Distribution network is referred to power grid with voltage at mid and low level at 10 kv and below but two levels above the end-user voltage of 220v or 380v, through which electricity is either transmitted from the transmission grid or gathered from local generating sources and distributed to the end-users.

It is where most of the distributed power sources, including renewable power (wind, solar, etc.), energy storage, gas or hydrogen-based heat and power cogeneration, and vehicle-to-grid (V2G) power, are connected to the power grid. It is also where electricity is provided to an increasingly diverse set of new customers – prosumers, data centers, 4G/5G telecom stations, and electric vehicles, all requiring uninterrupted and high-quality power supply. Increasingly, distribution networks, particularly micro-grids, are connected to the gas and heat distribution networks and digitalized to form the backbones of smart buildings, smart industrial parks and smart cities.

Therefore, distribution networks have become the core foundation of a modern power system where energy transition actually takes place, not only through the connection of more low carbon power sources, but also through innovative demand-side response tools such as virtual power plants.

Much effort worldwide has been spent on greening the generation side with increasing share of non-fossil fuels, but little or much less on the distribution side. The irony is that, without a strong and green distribution network, strong and green grid does not exist, nor could power sector succeed its transition.

Differences between new and old distribution networks

As stated in our earlier reports, China vows to build a new power system with high penetration of renewables and high integration with digital devices, where grid acts as the backbone of a modern energy system that combines all other sources of energy in a complementary manner. This new power system should be flexible in matching up production with consumption, resilient in coping with extreme weather events and other major threats, stable in operations, smart in responding demand interactively, reliable in supplying the needed power without interruption 24/7, and affordable for end-customers.

Such a new power system requires a new distribution grid which differs fundamentally from the existing one. It shall embody such features as 1) availability of multiple power sources at distribution grid level; 2) sophisticated customer base; 3) self-balancing nature of distribution grid; 4) two-way direction of power flow; 5) high level of digitalization; and 6) role as an open encompassing platform.

EXCLUSIVE SOUNDINGS



TRADING: “What is yet unclear to all of us is the role of trading and trading hubs in a world of renewable energy. It is possible that energy markets fragment and become highly localised. This scenario will favour well developed and diversified economies and the challenge for governments in oil-dependent economies will be to achieve this state before oil-related revenues finally diminish.”

Chris Bake

Member of the Executive Committee, VITOL
Chairman, VTTI

Source: GI Special Report: Energy Markets Outlook 2023

EVENT THIS WEEK

Daily Energy Markets Interview Series

GI Consultancy
Intelligence
Publishing

ENERGY TRANSITION 'TWO MINUTE WARNING'

Raad Alkadiri

Managing Director, Energy, Climate & Resources
Eurasia Group

TUESDAY /// NOVEMBER 15th /// 11:00AM (UAE)

Series Supported By:



Series Supported By:





Consultancy
Intelligence
Publishing