

Energy Transition



GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

ISSUE 63, MONDAY, OCTOBER 17th

SCROLL DOWN

CIMATE CHANGE ARTICLES ENERGY TRANSITION INSIGHTS EVENT THIS WEEK

Climate Change and Energy Transition Disruptions are the Challenges of our Time!

Bill Spindle, Climate and Energy Editor, SEMAFOR

We have seen from some of the climate impacts over the summer - from Pakistan to California to China - that disruption really is not something we can avoid. Delaying and going much slower is not going to decrease it and may well increase over the next 10 to 12 years dramatically if we don't move forward. But the exciting thing is, energy transition is gaining traction again. That does not mean we are on a straight line to the disappearance of fossil fuels by any stretch of the imagination. There's going to be a lot of roles that fossil fuels are going to have to play. They are going to be around for a long time. But the direction and the speed of that transition is really changing dramatically at this point.

What does this mean for fossil fuels in the coming years?

Inevitably, energy transition means that fossil fuels are going to be phased out and that means we are going to be walking a tightrope in the next 20 to 30 years. That is a very difficult thing. It is good news in the sense that this is happening. It's exciting. It's amazing. We have the tools in many ways to get a lot of this done immediately. In longer term, we are going to have other tools, but inevitably it's going to be walking this tightrope. We do not have the luxury of building the whole new system, and then one day flipping a switch and moving over to it. We got to build it while we are moving forward. That's going to mean some difficult, complicated, and controversial and sometimes disruptive and painful tradeoffs.



CONTINUED ON PAGE 2

CLIMATEPENPAL.ORG



CONTINUED Bill Spindle, Climate and Energy Editor, SEMAFOR

How are we going to deal with energy security?

We see in places like California which has this big power crunch in significant parts because renewables have been built into the system. They were critical to avoiding power shutdowns at the peaks. But at the same time, they are backtracking by keeping its Diablo Canyon nuclear plant going. In Europe, we are seeing an increase in coal which surely the Green Party is swallowing hard to deal with. There will be times when we need to either slow down or perhaps even increase fossil fuel use in the short-term. But the bigger question is, do we build new infrastructure or build in new capacity that ultimately ends up being wasted down the road? Can we keep those two things in mind moving forward with a transition and yet at the same time continue to provide the energy that existing energy users need and adding energy for a huge part of the developing world that still do not have sufficient power and energy?

What can we expect from COP27 considering the current challenges?

COP27 is going to be a very difficult conference. The dynamics that have defined climate diplomacy since the Paris Agreement is reaching a crossroads. We will see whether we can get through what is going to be a highly tense and acrimonious meeting between developing countries who are increasingly facing substantial, difficult climate impacts. They don't have the resources to address them and at the same time, they need energy as well. Africa for one has hundreds of millions of people that have no energy whatsoever, they want to, you know, use their fossil fuel resources, their traditional energy resources to meet some of those needs, as well as to feed the global demand for these resources. And yet they are being told that they need to accelerate their energy transitions as well. And they want money to do that. And indeed, the developed world has promised to give them money to do that really hasn't come through.

There's this \$100 billion promise a year that was made more than a decade ago by developed countries to help with both the energy transition and now increasingly to deal with the impacts of climate change in these countries. It still hasn't happened and probably won't even happen this year.

How can a fair and just transition happen?

I think the way to think about that challenge is having this kind of division of responsibility by the big emitting countries - China, the US, the EU, - that need to begin to, right this minute, reducing greenhouse gas emissions. Down the road, ambitious countries like India that has an expanding economy, and Africa where there are hundreds of millions that have no energy at all, they need opportunity, and they need energy to achieve those opportunities.

Are ideas like the Green Marshall Plan feasible?

It certainly is needed and would be fantastic. Whether that is going to happen at a time when most of the major economies are more focused on their own domestic situation - be it President Xi trying to get his third term in China, the US with its own political machinations in the midterm elections, or Europe dealing with this invasion of Ukraine and and the difficult energy crisis that it has caused. I am skeptical that it is going to happen. And that may lead to a train wreck on the international diplomacy front, which is certainly not good news. But we also should not forget that international climate diplomacy has not been what has driven the energy transition. That's been basically market forces. These alternative energy sources are now proving economically competitive. Renewable energies are something plausible to meet short-term energy security needs. But it is not going to meet all those needs, that's for sure.

[FULL INTERVIEW HERE](#)

Series Supported By:



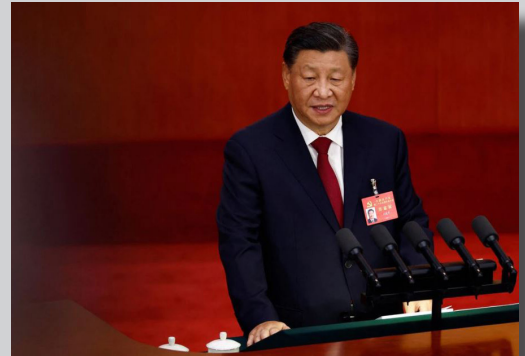


ARTICLES

Xi's Commitment to Energy Transition is Mixed for Commodities

Commodity markets were given little to cheer about in President Xi Jinping's address to the Communist Party Congress, with the main signal being a continuation of current policies in China, the world's biggest importer of natural resources. Xi's opening speech on Sunday to the twice-a-decade congress was largely a steady-as-she-goes report card as far as commodities were concerned, with no big announcements of government stimulus or a major shift in economic priorities.

Read Full Article Here: <https://reut.rs/3yLdiaY>



Renewables industry now employs 0.7% of the workforce in EU & China

The renewable energy transition will bring many tangible benefits beyond the immediate job of tackling climate change, from cleaner air in cities to new industrial opportunities. For ordinary people, though, one of the most tangible benefits will be the massive new employment opportunities: the UK Energy Research Centre estimates that renewable energy will create three times more jobs per million pounds invested than the fossil fuels industry.

Read Full Article Here: <https://bit.ly/3D0agIF>

How climate change affects the food crisis

As global temperatures and sea levels rise, the result is more heat waves, droughts, floods, cyclones and wildfires. Those conditions make it difficult for farmers to grow food and for the hungry to get it. Scientific studies indicate that extreme weather events will likely become more frequent or more intense due to human-induced climate change.



<https://bit.ly/3s0UNvj>

INSIGHTS

Chris Bake

Member of the Executive Committee
Vitol & Chairman, VTTI



What will be the Role of Trading & Trading Hubs in a World of Renewable Energy?

Funding the Energy transition will be more challenging for all of us as the cost of capital rises. The low interest rate environment we have become used to is ending, and coupled with heightened geopolitical risks, this is likely to result in increased investor reticence. In this context, governments have a key role to play leading and shaping change.

The UAE was one of the first to implement 10 ppm sulphur gasoline and gasoil for example. Governments across the region have committed to investing in the energy transition and the region, with its climate, has the immense potential to further leverage renewables. 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.

The UAE has embraced this challenge. It was the first country in the Middle East to ratify the 2016 Paris climate agreement and, since then, has developed initiatives to capitalise on the evolution of the world's energy needs, through transitional to sustainable solutions. ADNOC's LNG production capacity which will load via Fujairah, will comprise over 9.6 million tonnes a year, providing additional capacity to facilitate the move to transition fuels.

Longer term, the UAE has signalled its intent to be a leader in sustainable energy solutions. The recently announced development of a 200-megawatt green hydrogen facility to support the production of green ammonia which could be traded internationally or used as a shipping fuel in a key regional bunkering hub, is an exciting indication of how the UAE could leverage its geographical position to carve a sustainable future with sustainable energy flows. ■

**Paraphrased Comments*

Series Supported By:



REPORT

POWER SECTOR TRANSITION: Breaking up a monopoly giant? Unlikely!

Our previous report highlighted the urgent need for China to reform the power regulatory “skin” to suit a growing new power “body” which is drastically different from the old one. In this edition, we’ll investigate how a “new skin” may look like and how feasible it is for China’s power sector to change the “skin”.

The current grid “skin”

As briefly described in the previous report, China’s current power sector regulatory regime was set up in 2002, by the famous reform “Document No.5” of the State Council. That reform separated generation from transmission and distribution. It created five large-scale power generation companies, two grid companies, and a dozen specialized service companies. The two grid companies, the State Grid covering major part of the country in the north and the Southern Grid servicing the five southern provinces of Guangdong, Guanxi, Guizhou, Yunnan and Hainan, became the “single” buyer and seller of power in their respective territory. Figure 1 shows the current setting of China’s power grid system since 2015. It’s worth mentioning that within the territories of these two state grid giants, there still exist a dozen small “independent” grid companies, the biggest of which - the Mengxi Grid - covers the western part of the Inner Mongolia.

Two most important features of this setting are: 1) transmission and distribution are integrated; and 2) grid companies enjoy both natural monopoly and administrative monopoly in buying and selling electricity in their respective jurisdictions, which allow them to purchase electricity from generators and sell it to end users, both on an exclusive basis. They further set up fully owned subsidiary companies at regional, provincial, city and county levels, making China’s grid a pyramidal structure of five layers. Such a “super grid” model is unique in size from a global perspective. European power grid, for example, is composed of over 20 national grids, and the much smaller Japanese grid is composed of and managed by 9 independent grids. And the US grid is even more sophisticated, comprising 4 regional transmission organizations, 3 independent system operators, and around 500 companies.

Growing inadequacies

One can argue that China is different and a super grid model may fit suit better China’s national conditions. But with the rigidity in its operational and dispatching rules lagging seriously behind the market development, the super grid proves increasingly difficult to cope with the power sector diversities at regional and local levels. To make things worse, the State Grid, taking benefit of its monopolistic position over such a vast land, has built a number of ultra-high voltage (1,000kv AC and 800 kv DC) transmission lines, in the name of connecting the western resources to the eastern market, to further consolidate and reinforce its monopoly position. China vows to build a new power system with high penetration of renewables and digital devices, where grid acts as the backbone of a modern energy system that integrates all other sources of energy in a complementary way. This new power system should be flexible in matching up production and demand, 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, and affordable for end-customers.

These requirements make the current grid system increasing inadequate. The monopoly in buying and selling electricity rules out the possibility for a solar/wind/storage project owner to sell electricity to his neighbor without going through the grid company, thus inhibiting the development of decentralized renewables, energy storages and demand side response measures.

Daily Energy Markets

Interview Series

GI Consultancy
Intelligence
Publishing

H₂ HYDROGEN *'FULL COURT PRESS'*

Amir Sharifi
Chief Investment Officer
Hy24



Series Supported By:



WEDNESDAY /// OCTOBER 19th /// 11:00AM (UAE)

Exclusive Insights /// Actionable Intelligence /// Interviews /// OpEds

Energy Transition

GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

**REGISTER HERE FOR OUR
WEEKLY INTELLIGENCE BRIEFING**

cynthiacaidoy@gulfintelligence.com

Series Supported By:



