

Energy Transition



GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

ISSUE 62, MONDAY, OCTOBER 11th

SCROLL DOWN

COP28 INSIGHTS REPORT HYDROGEN ENERGY TRANSITION

“The MENA Region is an Emerging Global Hub for Transformation and Sustainable Development.”

H.E. Younis Haji Al Khoori, Undersecretary, Ministry of Finance UAE

Q: What is the outlook for greater investment in the Energy Transition across the region and how will it change energy consumption habits – could it free up more hydrocarbons for export?

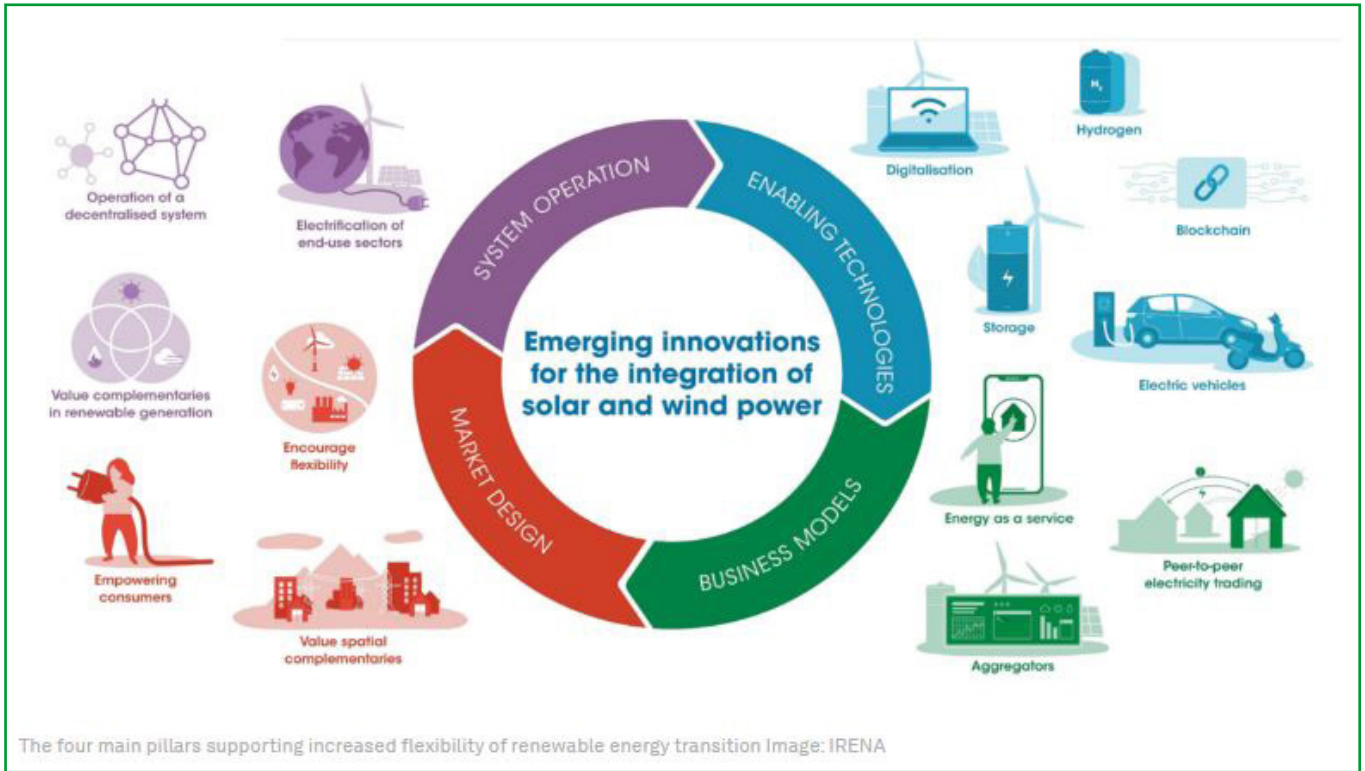
H.E. Al Khoori: As the upcoming host of COP28, the UAE is effectively the forthcoming leader of the global sustainability agenda. Our commitment for sustainability has been emphasized by our status as the first country in the Middle East to ratify the Paris Agreements and by our Net Zero commitment by 2050 - a commitment many countries in our region have also established. Our public sector has embedded sustainability priorities in our development programs. Accordingly, we have embedded sustainability priorities in our strategic development programs that have manifested in several areas that are geared towards promoting investment in energy transition:



CONTINUED ON PAGES 3 & 4

CLIMATEPENPAL.ORG





GI GULF NOC SERIES - STAKEHOLDER MANAGEMENT

**GI Profile Series of Gulf National Energy Institutions
Updated Monthly**

- ADNOC
- ARAMCO
- QATAR ENERGY
- KPC
- PDO
- BAPCO
- OQ
- MUBADALA PETROLEUM
- DANA GAS
- ARAMCO TRADING
- ENOC
- DUQM
- SUPREME COUNCIL FOR ENERGY

SPECIAL REPORTS

- ADNOC Oil & Gas Concessions 2016-2022
- Gulf Hydrogen Project Monitor 2021-22
- NEOM - Saudi Arabia
- Fujairah - Global Energy Hub
- ADNOC Transformation

For More Information - CONTACT: michellemeija@gulfintelligence.com

Series Supported By:



CONTINUED H.E. Younis Haji Al Khoori, Undersecretary, Ministry of Finance UAE

We have invested 10 billion dhs in our manufacturing sector to include a circular economy, and we are halfway through our clean energy program estimated to be completed by 2025 and prevent 22.4 million tons of carbon emissions every year.

On the side of strategic initiatives implemented by the public sector. The UAE has invested 10 billion dhs in its manufacturing sector that takes into account the foundation of a circular economy.

The Ministry of Energy and Infrastructure is halfway through its Clean Energy Programme, where 4 units of peaceful nuclear reactors are set to be activated by 2025, of which energy production is set to prevent 22.4 million tons of carbon emissions every year.

To further engage the private sector, the UAE has announced a Climate-Responsible companies pledge, where companies have committed to transparent reporting and sharing their plans for decarbonization. On private sector involvement, the Ministry of Climate Change has announced a Climate-Responsible Companies pledge to commit companies to transparent reporting of emissions and sharing of science-based plans to reduce their carbon footprint.

We have also partnered with global counterparts, where collaboration between the UAE and China is underway to provide the Etihad Rail project with sustainable solutions. From a global partnerships perspective, MoF has partnered with China's RCC group, world leading provisioners of sustainable railway solutions, in our Etihad Rail project which is due to connect UAE and Saudi Arabia with Fujairah as a critical point of connection to the UAE.

Broadly, we aim to hit 25% of renewable energy in our mix by 2025 and 50% by 2050. We expect the future to offer opportunities to export renewables alongside hydrocarbons, where we expect Fujairah's state-of-the-art logistics infrastructure to play a key role. With the UAE set to raise the share of renewables in its energy mix to 25% by the end of 2025 and achieve 50% by 2050.5 This creates a potential for future exports of renewable energy alongside the rising demand for hydrocarbons, both of which the UAE state-of-the-art logistics infrastructure, including Fujairah port will continue to play a key role.

Q: What does hosting two COPs in the MENA region mean for the region's energy transition? How will this transform the region's global positioning in leading the global transition towards clean energy?

H.E. Al Khoori: The MENA region is an emerging global hub for transformation and sustainable development. The UAE just hosted sustainability-themed Expo 2020 last year and the region is hosting COP27 and COP28 subsequently. The UAE just hosted sustainability-themed Expo 2020 last year, and another Expo is being pursued by Saudi Arabia. Most notably, the region is now home for the next two versions of COP events through Egypt and UAE.

As a key player of the global policy dialogue, our region needs to lead an innovative and practical transition process to shape the global commitment to tackle climate change. This comes to show that the MENA region and the GCC are actively becoming leaders in global policy priorities and has become a destination and host of key policy dialogues.

Series Supported By:



CONTINUED H.E. Younis Haji Al Khoori, Undersecretary, Ministry of Finance UAE

This reiterates the need for our region to lead an innovative and practical transition process, and perhaps even shaping the global commitment to fight climate change.

This has informed our approach to COP28 where we have identified several critical success factors. We have reflected this in the UAE through the critical success factors that we have charted for COP28 next year, through which:

First, there needs to be further synergies between climate action and differentiated development paths to ensure sustainable outcomes. There needs to be further focus on synergies between climate action and differentiated development paths for lasting prosperity and social development.

Second, we need to accelerate the transition by leveraging our natural and technological advantages.

Third, we also need to ensure our climate response supports those who are experiencing the impact of climate change now.

And fourth, we need collaboration from all those involved to identify and invest in impactful climate solutions. And finally, there needs to be collaboration from all countries, civil society, and core industries that are part of the climate talks to identify and invest in climate solutions.

Q: How is the UAE government looking to further engage the private sector in its efforts for Energy Transition and how does that relate to the UAE's role in G20?

H.E. Al Khoori: We have recently announced our forthcoming law on Public-Private Partnerships which encourages greater participation from the private sector in projects of high socio-economic impact.

We aim for the public and the private sector to work hand in hand in order to ensure sustainable national outcomes. With this in mind, the UAE has recently announced a new law on Public-Private Partnerships to further enhance communication and alignment with the private sector. The law organizes and regulates partnerships between sectors, encouraging the private sector to participate in development and strategic developments as well as increase investment in projects of socio-economic impact.⁶

Furthermore, our public sector oversight will ensure all projects are aligned to the energy transition plan as well as the SDGs. Our public sector oversight will ensure that all projects are aligned to the energy transition plan as well as the sustainable development goals of UAE focus

This new approach will allow us to transition from risk mitigation and towards risk sharing models. We will be able to achieve this end through regulatory reforms, as well as adopting funding models that socialize development costs for the private sector to leverage as a foundation for continuous improvement.

This impact will be further enabled with the development of the sustainable finance ecosystem in the UAE, in line with the G20 Sustainable Finance Roadmap. This ecosystem will lead local efforts to promote sustainability in the private sector. This will be further enabled by the progress we are making in developing the sustainable finance ecosystem in the UAE, in line with the G20 Sustainable Finance Roadmap. This will lead local efforts to promote sustainability by the private sector, in which we are targeting the development of a sustainable finance taxonomy, governance framework and disclosure requirement.

FULL INTERVIEW HERE

INSIGHTS

Seed of a (Hydrogen) Revolution



Bill Spindle
Climate & Energy Editor
SEMAFOR

Hydrogen will be a major green fuel source of the future; it starts in places like this.

The collection of pipes, pumps and an electrolyzer outside the ancient city of Bikaner is tiny for an industrial facility. But this is among the seeds that will eventually grow into a branch of the energy industry worth hundreds of billions of dollars globally.

Few emerging energy technologies have been hailed as far and wide as green hydrogen. The process starts with water, adds electricity and results in a fuel, hydrogen, that simply reverts back to water and oxygen when used as an energy source. When made with renewable energy, it's clean as a whistle.

Hydrogen can be stored for months in the form of ammonia, a chemical compound the world already regularly deals with in its liquid form. In this guise, hydrogen can also be shipped relatively easily. It can also be conveniently manufactured when wind and solar electricity production exceed demand during peak sunshine. Hydrogen burns hot, so it can replace dirty coking coal in steel plants. There's already a large market for hydrogen in oil refining and to make agricultural fertilizers. It's just dirty hydrogen — meaning produced through a process that emits lots of carbon dioxide — that could be replaced by the green stuff, if it can be made cheap enough.

"Fertilizers and chemicals are markets that are already there, they just need to move from grey to green," said Devang Singh, an ACME exec who showed me around.



Industry experts are confident hydrogen can be made cheap enough — as long as we make a lot of it. Indeed, with the huge spike in natural gas prices over the past year green hydrogen may already be cheap enough. And it's going to get much cheaper.

All of that has raised hopes that green hydrogen will help with some of the toughest challenges of the energy transition: storing green energy and cleaning up industries like fertilizer production, steel making, shipping and perhaps even aviation.

I toured this pilot project, operated by ACME Group, one of India's leading renewable energy companies, earlier this year when it was the only operating commercial green hydrogen facility in the world. ACME set up the plant in early 2021. By the middle of that year, it was deploying five megawatts of solar energy to power a single 2.5 Megawatt electrolyzer. The plant makes five tons of green ammonia per day.

[CLICK HERE TO READ FULL ARTICLE](#)

REPORT

POWER SECTOR TRANSITION: can a new “body” fit in an old “skin”?

A country's electric power system plays an instrumental role in its energy transition. As part of China 2030/2060 peaking/neutrality commitment, Chinese policymakers vowed to build a “new power system” (NPS) with new and renewable energies at core of its architectural foundation. But delivering such an ambition requires fundamental reform of the existing power regulatory regime. Clarity is needed on what features the NPS in comparison with the old one, and how could the old power regulatory “skin” accommodate a growing new power “body”. This Insight report makes an attempt to answer these questions.

1. The “New Body”

China's NPS, by design, is expected to have the following attributes:

- Low carbon as its defining characteristic, the NPS requires a rapid expansion of renewables and nuclear power.
- Secure and reliable at its foundation.
- Smart and interactive, massive amount of power electronics and digital technologies are connected and also connecting all devices in the power value chain in a coordinated manner.
- Flexible, as the NPS must have enough capability and flexibility to accommodate the connection of intermittent renewables to the grid at large scale.
- Integrative and as the backbone of modern society, the NPS shall offer the foundational infrastructure that allows other infrastructures (such as mobility) to plug and play in all the nodes in the system.
- Robust and resilient, the NPS must be able to effectively respond to threats from climate-induced extreme weather events and other disasters, as well as those of cyber security threats.
- And efficient and cost effective, it shall prove to be efficient from a system perspective and shall be affordable for the end users.

Such a system distinguishes itself from the traditional fossil-fueled system, and Table 1 below compares the two systems in technical terms.

2. The “Old Skin”

Given the above differences, the NPS which Chinese policymakers have in mind represents a disruptive remodeling of the country's existing power system. It begs the question whether such a new system can be built within the “old skin” of the existing system.

Historically, China went through two major rounds of power regulatory reform.

The first round, carried out in 2002, 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 (see Figure 1), the State Grid covering the major part of the country in the north and the Southern Grid covering five southern provinces of Guangdong, Guanxi, Guizhou, Yunnan and Hainan, are unique buyer and seller in their respective territory¹.

The second round, carried out in 2015, broke the monopoly of grid companies in purchasing and selling electricity, by allowing big consumers to purchase electricity directly from generators. From there it introduced a national power trading market, where a growing portion of power is traded in the market, reaching 45% in 2021.

No major reform was carried out since the 2015 round despite repeated calls, particularly since the building of a NPS was called for in March 2021. Successive government plans all called for the reform of the old “skin” to accommodate the growing new “body”.

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

Energy Transition

GI Consultancy
Intelligence
Publishing

INTELLIGENCE BRIEFING

**REGISTER HERE FOR OUR
WEEKLY INTELLIGENCE BRIEFING**

cynthiacaidoy@gulfintelligence.com

BP: What the Energy Transition Looks Like

The race to net zero is gaining attention and urgency globally as increasingly severe weather events, powered up by climate change and rising temperatures, wreak havoc globally, causing humanitarian crises, loss of land and property, and food shortages. Countries and companies are laying out net-zero emissions plans by 2050 in a bid to curtail warming by curbing greenhouse gas emissions, both through a transition to renewables as well as utilizing carbon capture technologies. British Petroleum is at the front of the pack within the oil and gas industry.

Shortly after taking over the company in 2020, BP's newest CEO, Bernard Looney, announced that the oil supermajor would be walking away from the standard business model it had thrived on for decades in favor of a new one aligned with the Paris Agreements that focuses on drastically reducing emissions and pivoting to renewable energy and carbon capture technologies. These plans included cutting dividends to shareholders by half, spending up to \$5 billion annually to convert the company to a renewable energy business model, and slicing oil and gas output by 40% by 2030, with a goal of net zero by 2050.

In 2019 BP had just \$500 million of investments allocated to renewables. That grew to \$2.2 billion in 2021. As low and zero carbon investment continues to grow, BP anticipates it will pull from traditional oil and gas in a natural pivot towards low and net-zero emissions. By 2030 BP's goal is to have between \$4-6 billion invested in low and zero-carbon solutions, including renewables, bioenergy, hydrogen, carbon capture and storage, and EV charging.

One area that BP is expanding rapidly is offshore wind energy to meet its net-zero goals. The company recently announced that it would be tripling its number of workers for offshore wind farms. The wind farms being constructed now are all based on anchored turbines that attach to the seafloor, but innovations within floating platform technology by the oil and gas industry could soon be folded in as BP seeks to hire a head for floating wind.

READ FULL ARTICLE HERE

Series Supported By:





Consultancy
Intelligence
Publishing