

MINISTERE DES ARMEES

Observatoire de la sécurité des flux et des matières énergétiques

Revue de presse - 26 mars 2021







Table des matières

Actualités énergétiques régionales	3
Afrique du Nord – Moyen Orient	3
Arctique	3
Méditerranée Orientale	4
Europe	5
Asie	6
Afrique	7
Autres	9
Stratégies d'entreprises	10
Stratégies	10
Investissements et acquisitions	11
Juridique et institutionnel	12
Innovations technologiques	14
Energies renouvelables et biocarburants	14
Stockage d'électricité et batteries	14
Véhicules électriques	15
Hydrogène	16
Nucléaire	16
Autres technologies	17

Actualités énergétiques régionales

Afrique du Nord - Moyen Orient

Saudi Aramco to prioritise China for next 50 years

Date: 22/03/2021

China, Saudi Arabia, Asia, Middle-East, BRICS, Emerging markets, Oil, Supply

Saudi Aramco aims to participate in every phase of China's development, including investments in integrated downstream projects. The company, which already has stakes in Chinese refineries, prioritises China's energy security, working with Chinese universities and companies to develop cleaner engine-fuel systems, catalytic crude-to-chemicals technology, and studies to reduce emissions. Saudi Arabia supplied 1.7 mb/d of crude oil to China in 2020, i.e. nearly 16% of its total crude oil imports.

Source(s): Argus Media

Middle East LNG hedging in China's energy diplomacy

Date: 12/03/2021

China, Middle-East, Asia, BRICS, Emerging markets, LNG, Natural Gas, Supply

China's energy mix is currently changing to include more natural gas and LNG. China's geoeconomic policy around natural gas imports has clear potential for politicization, with impacts on both the supply countries and for other buying countries like Japan. Creating new buy-side dependencies in LNG and piped gas creates new forms of institutional power through which to exercise foreign policy via strategic price-setting and import volume control.

Source(s): The Diplomat

China is buying record amounts of Iranian oil

Date: 10/03/2021

China, Iran, Asia, Middle-East, BRICS, Emerging markets, Oil, Supply

China is moving closer to Iran than ever before - over the past 14 months, Iran sent 17.8 Mt (approximated 306,000 bbl/d) of crude oil to China - but the partnership still has limits. Iran only accounts for 3% of Chinese oil imports and China is reluctant to be pulled into economic or geopolitical liabilities, rather seeking to diversify its links to the Gulf.

Source(s): The Diplomat

Arctique

In Russian Arctic energy shift, Novatek might turn from LNG to ammonia

Date: 17/03/2021

Russia, CIS, BRICS, G8, Emerging markets, Hydrogen, Demand

Novatek intended to produce up to 5 Mt of LNG in its Ob project by 2025 but it now plans to turn towards ammonia over technical problems at its Yamal LNG project. The group could use its huge Yamal and Gydan gas reserves to produce hydrogen and ammonia and supply European markets.

Source(s): The Barents Observer

The polar policies in China's new five-year plan

Date: 12/03/2021

China, Asia, BRICS, Emerging markets, Renewables, Electricity, Policy

The 14th Five-Year Plan (FYP), which will guide China's economic policies until 2025, includes Arctic and Antarctic policies and aims to further develop the Polar Silk Road as a component of the wider Belt and Road Initiative. Since its announcement in 2017, the Polar Silk Road has made significant progress, including in the co-development of the Yamal LNG project in Russia (20% CNPC and 9.9M Silk Road Fund) and expanded shipping along the Northern Sea Route, which may eventually see the Arctic Ocean become a secondary transit corridor for Chinese interests.

Source(s): The Diplomat

How China's Belt and Road and an Australian mining company could be the deciding issues in the Greenland election

Date: 06/03/2021

China, Asia, BRICS, Emerging markets, Uranium, Nuclear, Electricity, Projects

Greenland Minerals, an Australian company in which Shenghe Holdings (a Chinese rare earths processing company with close ties to the Chinese government) holds a stake, plans to develop the Kvanefjeld rare earth mine in Greenland, which would be the world's second largest if approved. The company, which already spent some AUD83m (US\$63m) on environmental, safety and feasibility studies, is also hoping to mine uranium from the same vein.

Source(s): ABC News

Méditerranée Orientale

The Israeli authorities will support a new gas pipeline to Egypt

Date: 11/03/2021

Africa, Egypt, Middle-East, Israel, Natural Gas, Policy, Projects, Gas pipeline, Interconnection (gas)

According to the Israeli Ministry of Energy, the government plans to give its support to a subsea pipeline project with a 10 bcm/year capacity that would link up Israel's Leviathan gas field to Egyptian LNG terminals, and that could double the Israel's gas export capacity to Egypt.

In January 2020, Israel started to export gas from the Tamar and Leviathan offshore reservoirs to Egypt through the 90 km subsea East Mediterranean Gas (EMG) gas pipeline between Ashkelon (Israel) and El Arish (Egypt). The proposed offshore pipeline project would raise gas exports to Egypt, as Leviathan gas production is expected to ramp up. Indeed, Delek Drilling, which owns a majority stake in the Leviathan gas field (45.34%, in partnership with Noble Energy (39.66%) and Ratio Oil Exploration (15%)), has announced that the Leviathan gas field is expected to produce 10 bcm in 2021, i.e. 12% more than in 2020.

In January 2021, the partners in the Leviathan and Tamar gas fields offshore Israel agreed to invest ILS 765m (US\$235m) to build a new 5.5 bcm/year gas pipeline between the Leviathan and Tamar reservoirs to EMG's terminal in Ashkelon (southern Israel) that would be operated by Israel Natural Gas Lines (INGL), in order to export natural gas to Egypt.

Source(s): Reuters, Reuters

New agreement signed on the Eastmed gas pipeline (Israel-Cyprus-Greece-Italy)

Date: 10/03/2021

G8, Emerging markets, Europe, Cyprus, Greece, Italy, Middle-East, Israel, Natural Gas, Companies, Projects, Gas pipeline, Interconnection (gas), EDF

IGI Poseidon, the joint venture of the Greek gas transmission company DEPA and the Italian energy group Edison (part of EDF), and Israel Natural Gas Lines (INGL) have signed a new agreement on the Eastmed gas pipeline, which would deliver 10 bcm/year of gas from offshore Israel to Cyprus, Greece, and Italy. The addendum to the 2019 Memorandum of Understanding (MoU) aims to connect the project to the Israeli gas transmission system and to facilitate the flow of gas from sources in the East Mediterranean area to Italy and Europe via Cyprus.

In July 2020, the government of Israel approved a framework agreement on the construction of the project. The framework agreement was signed by Greece, Cyprus and Israel in January 2020 but required a final approval in Israel. The final investment decision on the €6bn (US\$6.9bn) project is expected in 2022 and the 1,900-km-long subsea gas pipeline could be commissioned as soon as 2025. The capacity of the project could later be doubled to 20 bcm/year.

Source(s): IGI Poseidon

Greece, Cyprus and Israel sign an MoU on the Euro-Asia Interconnector

Date: 09/03/2021

Europe, Cyprus, Greece, Africa, Middle-East, Israel, Electricity, Projects, Power grids, Interconnection (power)

Greece, Cyprus and Israel have signed a Memorandum of Understanding (MoU) to build the Euro-Asia Interconnector, a 1,000-2,000 MW subsea HVDC line between the three countries. The US\$900m (€760m) project, with a length of about 1,500 km and a maximum depth of 2,700 metres, should be completed by 2024.

In April 2020, EuroAfrica Interconnector initiated a €650m tender for the EPC of a 1 GW subsea HVDC line between Egypt, Cyprus, and Greece (Crete and Attica). Phase 1 of the project is expected to cost €2.5bn. The interconnection between Egypt and Cyprus should be commissioned in December 2022, while the Cyprus-Crete link would be operational in December 2023.

Source(s): Reuters

Europe

Excelerate, ExxonMobil to run Albania LNG terminal study

Date: 13/03/2021

Albania, Europe, LNG, Natural Gas, Projects, Companies, ExxonMobil

US-based Excelerate Energy and ExxonMobil have signed a MoU with the Albanian government to conduct a feasibility study for the development of an LNG project in the Port of Vlora in Southern Albania. ExxonMobil will seek to support LNG supply to the project, which could be commissioned as soon as 2023.

Source(s): Offshore Energy

PKN Orlen signs agreement with ExxonMobil to import 1 Mt of US crude oil

Date: 11/03/2021

Europe, Poland, Oil, Crude oil, Companies, Trade, Contract, Supply, ExxonMobil, PKN Orlen

PKN Orlen has signed an agreement with ExxonMobil to import 1 Mt of US crude oil within a year. The purchase would supply the group' refineries in Poland, Czechia and Lithuania. PKN Orlen usually imports most of its oil from Russia but a price row with Rosneft has delayed the signing of a new supply agreement. PKN Orlen also imports crude oil from the Russian company Tatneft (200 kt/month).

PKN Orlen is the main wholesale supplier of oil products in Poland (56% market share in 2019). It operates a large refinery in Płock with a capacity of 16 Mt/year). In 2019, PKN Orlen processed and sold 17.6 Mt of oil products in the country. It also controls the 10.5 Mt/year refinery of Gdansk thanks to its 53% stake in Grupa Lotos.

Since 2004, crude oil imports increased by 2.8%/year on average to 27 Mt in 2019. The share of Russia in oil imports has been decreasing during the last decade (60% in 2019 compared to more than 90% in 2010).

Source(s): PKN Orlen (Polish), Reuters

Turkey's energy relations with Russia: How should the West respond?

Date: 10/03/2021

Turkey, Russia, Europe, CIS, BRICS, G8, Emerging markets, Natural Gas, Policy

While the security relationship between Russia and Turkey has seen ups and downs throughout the years, energy ties have remained stable. Yet, Turkey has made strides toward reducing its dependence. The opening of the Southern Gas Corridor (SGC) and the surge of LNG purchases have resulted in a dramatic decline of gas imports from Russia (imports fell by nearly 50% between 2017 and 2019).

Source(s): Middle East Institute

Asie

Laos grants 25-year power grid concession to Chinese-majority firm

Date: 17/03/2021

China, Lao PDR, Asia, Asia, BRICS, Emerging markets, Electricity, Policy, Transmission (power), Power grids

The government of Laos has signed a concession agreement allowing Electricité du Laos Transmission (EDLT), a joint venture of the state-owned power company Electricité du Laos (EDL) and China Southern Power Grid, to build and manage the country's high voltage power grid (EDL will continue to operate power lines of less than 230 kV). EDLT will invest US\$2bn in the Lao power grid and will manage the HV network for a period of 25 years, after which they will be ceded to the Lao government.

Source(s): The Diplomat

Crude supply to PetroChina Yunnan via China-Myanmar pipeline steady despite political crisis

Date: 09/03/2021

China, Myanmar, Asia, Asia, BRICS, Emerging markets, Oil, Supply

PetroChina's Yunnan Petrochemical continues to receive a steady supply of feedstock through the cross-border China-Myanmar crude oil pipeline despite logistical constraints arising from the political crisis in Myanmar and the US' targeted sanctions on Myanmar's military leaders.

Source(s): Platts

Harbin moves forward with 1.3 GW USC Jamshoro coal-fired plant in Pakistan

Date: 05/03/2021

Emerging markets, Asia, Pakistan, Electricity, Thermal, Coal-fired power gen., Projects, Power plants

Harbin is moving forward with the construction of the 1,320 MW (2x660 MW) Jamshoro USC coal-fired power plant project in Pakistan. The power plant project is part of the One Belt One Road initiative and is being developed in partnership with Siemens. The project consists in building two 660 MW units on the site of an existing power plant operated by PEPCO (Pakistan Electric Power Company). The Jamshoro coal-power plant already includes 4 operational units (Jamshoro 1-4, entailing one 250 MW unit and three 200 MW units). The joint venture also won a five-year O and M (operations and maintenance) contract for the new 660 MW units; the EPC contract for the second phase is estimated at US\$313m. The first unit of the project is expected to be commissioned in 2022 and the project should be fully operational in 2023.

Source(s): Harbin (in Chinese)

Russia and India to create a task force on gas

Date: 02/03/2021

Russia, India, CIS, Asia, BRICS, G8, Emerging markets, Natural Gas, Policy

Russia and India have agreed to create a Task Force on Gas, which will operate within the framework of the Working Group on Cooperation in the Field of Energy and Energy Efficiency of the Russian-Indian Intergovernmental Commission on Trade, Economic, Scientific, Technical and Cultural Cooperation.

Source(s): Russia's Ministry of Energy (Russian)

Afrique

Nigeria plans to concession the 700 MW Zungeru hydropower project

Date: 25/03/2021

Emerging markets, Africa, Nigeria, Electricity, Renewables, Hydro, Large-hydro, Companies, Projects, Power plants

The Nigerian Bureau of Public Enterprise plans to concession the 700 MW Zungeru hydropower plant by the end of 2021. The US\$1.3bn project, which should produce 2.6 TWh/year of electricity, is expected to be fully operational in December 2021. Construction started in 2013 and the project is currently 87% complete. In 2013, the country signed a contract with two Chinese state-owned companies, China National Electrical Equipment Corporation (CNEEC) and Sinohydro Consortium, to build the Zungeru power plant. The Exim Bank of China awarded a US\$985m loan with preferential conditions for the project to Nigeria, supporting 75% of the cost of the project.

Source(s): This Day

Mozambique : une attaque dans le nord-est du pays, le jour de l'annonce de la reprise des travaux par Total sur son mégaprojet gazier

Date: 24/03/2021

Emerging markets, Africa, Mozambique, Natural Gas, LNG, Companies, Projects, Total

Des djihadistes présumés ont attaqué la ville de Palma dans le nord-est du Mozambique, où un mégaprojet gazier auquel participe le groupe français Total a été paralysé plusieurs mois par les violences. Cette attaque survient le jour même de l'annonce par le géant français de la reprise des travaux de construction sur le site gazier qui devrait être opérationnel en 2024.

Source(s): Connaissance des Energies

Russia refuses to give up on Senegal's oil boom

Date: 13/03/2021

Russia, Senegal, CIS, Africa, BRICS, G8, Emerging markets, Oil, Acquisition/sale, Companies, Lukoil

Lukoil has offered US\$170m to acquire FAR's 15% share in the RSSD oil project in Senegal, i.e. nearly 4 times more than Woodside (US\$45m), which is seeking to pre-empt FAR's 15%. In December 2020, Woodside, which owned 35% in RSSD, exerted its pre-emption right to acquire Cairn Energy's 40% stake, in which Lukoil had expressed interest. However, FAR has considered Lukoil's offer incomplete and should sell its stake to Woodside.

Source(s): Oil Price, FAR

African countries are helping China go green. That may have a downside for Africans.

Date: 12/03/2021

China, Africa, Asia, BRICS, Emerging markets, Uranium, Nuclear, Electricity, Supply

China General Nuclear Power (CGN), a Chinese state-owned enterprise, purchased Namibia's Husab uranium mine in 2012. The US\$5.2bn project is expected to become the world's second-largest uranium mine and to generate roughly US\$200m in government revenue annually — roughly 5% of Namibia's total 2018 government revenue.

Source(s): The Washington Post

Bulk of China's tightened belt and road energy finance goes to Africa

Date: 27/02/2021

China, Africa, Asia, BRICS, Emerging markets, Electricity, Policy

Despite dropping to their lowest level since 2008, Chinese loans to the energy sector topped US\$4.6bn in 2020. Projects in African countries accounted for 2/3, with the biggest share going to the Ajaokuta-Kaduna-Kano gas pipeline project in Nigeria, funded by the Exim Bank of China.

Source(s): South China Morning Post

Autres

China XD Group Contributes to Reliable Power Transmission in Armenia

Date: 08/03/2021

Armenia, China, CIS, Asia, BRICS, Emerging markets, Electricity, Projects, Transmission (power), Power grids

China XD Group has completed the renovation project of the Ashnak transformer substation in Armenia. The project mainly included construction of three 220 kV power lines, two main transformer substations and nine 110 kV export lines. All the primary equipment like the two main transformers, circuit breakers and isolating switches were provided by China XD Group.

Source(s): SASAC

OPEC+ keeps oil production target for April 2021 broadly unchanged

Date: 05/03/2021

World, Oil, Crude oil, Policy, Supply, Production

The OPEC+ has agreed to a continuation of the production levels of March 2021 - when the production cut reached 8.05 mb/d - in April 2021 for most member countries. However, Russia and Kazakhstan will be allowed to increase their crude oil production by 130 kb/d and 20 kb/d, respectively. The two countries were already authorised to raise their output by a combined 75 kb/d in February 2021 and a further 75 kb/d in March 2021. On the contrary, Saudi Arabia pledged to extend in April 2021 the voluntary oil output cuts of 1 mb/d that started in February 2021.

In January 2021, the OPEC+ agreed to gradually return 2 mb/d to the market and to adjust the production reduction from 7.7 mb/d to 7.2 mb/d. Under the agreement, most of OPEC+ oil producers maintained their production level, while Russia and Kazakhstan raised their crude oil production by a combined 75,000 bbl/d in February 2021 and a further 75,000 bbl/d in March 2021. On the contrary, Saudi Arabia had pledged extra, voluntary oil output cuts of 1 mb/d in February and March 2021. Consequently, the OPEC+ production cut (including Saudi Arabia's additional commitment) increased from 7.2 mb/d in January 2021 to 8.125 mb/d in February 2021 and declined to 8.05 mb/d in March 2021.

Source(s): OPEC, CNBC

Stratégies d'entreprises

Stratégies

Quelle géopolitique du pétrole au temps du Covid-19?

Date: 08/03/2021 World, Oil, Policy

Le maintien à bas niveau de la demande de pétrole, la fragilité des prix et le manque d'investissement à court et moyen terme pourraient bouleverser les rapports de force de la géopolitique de l'énergie. Cette nouvelle donne risque de fragiliser des pays très dépendants de la rente pétrolière. L'impact du Covid-19 sur la géopolitique du pétrole semble donc déterminé à durer.

Source(s): IRIS

China's five-year plan focuses on energy security

Date: 19/03/2021

China, Asia, BRICS, Emerging markets, CO2 emissions, Policy

China's 14th Five-Year Plan (2021-2025) appears as an extension of current strategy, focusing on energy savings and energy efficiency, improving energy security, reducing the share of fossil fuels in energy consumption and cutting pollution and CO2 emissions. The recent promotion of zero-emission energies (nuclear, hydropower, wind and solar) and the electrification of its energy and transport systems are expected to help China ensure its economic growth with secure, affordable and non-polluting energy, and reduce its dependence on coal without increasing its reliance on imported oil and gas, while offering the country diplomatic benefits in terms of climate policies.

Source(s): Reuters

CNNEC and Belenergo (Belarus) agree on energy cooperation

Date: 16/03/2021

Belarus, CIS, Electricity, Companies

CNEEC and Belarus' energy group Belenergo have signed a Memorandum of Understanding (MoU) on Belarus's 2021-2025 energy strategic plan, paving the way for cooperation in energy and other fields in Belarus and Russian-speaking markets in the next five.

Source(s): CNEEC

China turns its investment green under Belt and Road Initiative

Date: 11/03/2021

China, Asia, BRICS, Emerging markets, Renewables, Electricity, Policy

China is increasing green investment under the Belt and Road Initiative (BRI) as the country has been trying to shift away from fossil fuels and further promote clean energy. China has raised the share of renewables in its overseas energy investments from 38% in 2019 to 57% in 2020, with additional renewable investments focusing on Egypt, Pakistan and Bangladesh (China's energy investments in Qatar, Oman and Egypt were 100% for renewables).

Source(s): CGTN

MENA at the center of the West: China's "opening up to the West" strategy

Date: 09/03/2021

China, Middle-East, Asia, BRICS, Emerging markets, Oil, Policy

The MENA region is important to China for three main reasons. First, the region holds 52% of the world's proven oil reserves and 42% of its proven gas reserves, accounting for more than 45% of China's crude oil imports and for 19% of its LNG imports in 2019. Over the 2015-2018 period, 47% of China's investments in the MENA region were directed to the energy sector. Another 20% of these investments were directed to the transport sector, which is crucial for China, since most of its oil and gas imports and 60% of its goods exports transit through the Suez Canal and other transport routes in MENA. Finally, the MENA region is a large market for Chinese goods and services.

Source(s): Middle East Institute

Investissements et acquisitions

Tatneft plans to start oil production in Libya in 2021

Date: 19/03/2021

Russia, Libya, CIS, Africa, BRICS, G8, Emerging markets, Oil, Production, Supply

The Russian oil company Tatneft, which had suspended its Libyan operations in 2014, plans to resume well drillings in 2021. The company has already carried out seismic explorations and plans to start oil production in 2021, targeting a cumulated production volume of 50 Mt in Libya and Syria.

Source(s): NefteGaz.ru (Russian)

GE delivers gas turbines to 1.8 GW Hamriyah CCGT project (UAE)

Date: 18/03/2021

Emerging markets, Middle-East, United Arab Emirates, Electricity, Thermal, Gas-fired power gen., Supply, Capacities, Projects, Power plants

GE has delivered two GE HA gas turbines to be installed at the 1.8 GW Hamriyah Independent CCGT power plant project in Sharjah (United Arab Emirates). The project is developed by Sharjah Hamriyah Independent Power Company (SHIPCO), a joint venture company of GE Energy Financial Services (GE EFS), Sumitomo Corporation (Japan), Shikoku Electric Power Company and Sharjah Asset Management (SAM), the investment arm of the Government of Sharjah. As agreed in 2018, SHIPCO will build, own and operate the project and sell its power generation to Sharjah Electricity, Water and Gas Authority (SEWA) under a 25-year Power Purchase Agreement (PPA).

Source(s): GE

Westinghouse plans investment in Polish nuclear

Date: 16/03/2021

Poland, Europe, Nuclear, Electricity, Projects, Power plants

Westinghouse Electric Company plans to invest in nuclear technologies in Poland. The US company will prepare a technology and a financing offer to build nuclear power plants in Poland, where the government aims to build 6 to 9 GW of nuclear capacity by 2043 to replace coal-fired power plants.

Source(s): World Nuclear News

Rosatom should build 24 new nuclear reactor units in Russia by 2045

Date: 11/03/2021

BRICS, G8, Emerging markets, CIS, Russia, Electricity, Nuclear, Companies, Projects, Power plants, Rosatom

The Russian president has decided to increase the share of nuclear power in the country's energy mix to 25% by 2045, which will require the construction by the state nuclear corporation Rosatom of 24 new nuclear reactor units, including at new sites and in new regions. Nuclear power accounted for more than 20% of Russia's power mix in 2020 (preliminary estimates). The country has 11 nuclear power plants in operation, comprising 37 units with a total installed capacity of more than 29 GW.

Source(s): World Nuclear News, Rosatom (Russian)

Rosatom launches new manufacturing site for CFR-600 (China) fuel fabrication

Date: 04/03/2021

Russia, China, CIS, Asia, BRICS, G8, Emerging markets, Nuclear, Electricity, Projects

Elemash Machine-building plant (part of ROSATOM's TVEL) has launched a production site for to produce fuel bundles for the CFR-600 reactor, China's flagship project in the field of fast neutron reactors. In 2018, TVEL and CNLY (a subsidiary of CNNC Corporation) signed an agreement for the supply of uranium fuel for the CFR-600 reactor, including start-up loading, and refuelling for the 1st seven years of the power unit operation. First CFR-600 fuel supplies to China are expected in 2023.

Source(s): Rosatom, NeftegazRU.com

Harbin Electric moves ahead with installation of 2.4 GW coal plant (UAE)

Date: 01/03/2021

Emerging markets, Middle-East, United Arab Emirates, Electricity, Thermal, Coal-fired power gen., Projects, Power plants

Harbin Electric is moving forward with the construction of the 2.4 GW Dubai Hasyan coal-fired power plant in Dubai (United Arab Emirates), in which the company owns a 14.7% stake (51% DEWA, 26.95% ACWA Power and 7.35% Silk Road Fund). Harbin and GE are in charge of the EPC contract. The unit's generator stator and main transformer are now in place, marking the entering of the peak stage of equipment installation. Commissioning is expected in early 2023.

Source(s): Harbin (Chinese), ACWA Power

Juridique et institutionnel

U.S. warns entities involved in Nord Stream 2 they face more sanctions

Date: 18/03/2021

United States, America, G8, Natural Gas, Policy

The United States has called for "any entity involved" in the Nord Stream 2 gas pipeline project between Russia and Germany to disengage "immediately" or face U.S. sanctions. So far, Washington has only imposed sanctions on the Russian company KVT-RUS, which operates the pipe-laying vessel Fortuna.

Source(s): Radio Free Europe

New York exchange moves to delist CNOOC's American depositary shares as Trump-era executive order kicks in

Date: 27/02/2021

United States, China, America, Asia, BRICS, G8, Emerging markets, Oil, Companies, CNOOC

To comply with a November 2020 executive order signed by the former US President to ban US investments in companies with purported ties to the Chinese military, CNOOC Ltd, the unit of China's biggest producer of offshore oil and natural gas, should be delisted from the NYSE.

Source(s): South China Morning Post

Innovations technologiques

Energies renouvelables et biocarburants

Energy transition investment should rise to US\$4,400bn/year under 1.5°C scenario

Date: 25/03/2021

World, Renewables, Hydrogen, Electricity, Investments

According to an expert report, energy transition investment will have to increase to US\$4,400bn/year until 2050 to restrict global warming to 1.5°C. Driven by electrification of all sectors, the global renewable installed capacity would need to expand from 2,500 GW to over 27,700 GW in 2050, leading to electricity (as an energy carrier) to exceed 50% of final energy use. Hydrogen is expected to play a key role in the transition set to represent 12% of final energy consumption by 2050. This will only be possible with a strong reduction in development costs for green hydrogen, which will range between US\$2.2-5.1/kgH2 (depending on the cost of electricity) in 2020-2030 and between US\$1.1-3.3/kgH2 in 2040-2050. If electricity costs are around US\$20/MWh, green H2 could become competitive with blue H2 by 2030.

Furthermore, emission abatement options will be required for the last share of emissions. This means the deployment of CCS, carbon dioxide removal (CDR) technologies, and the use of Biomass with CCS (BECCS). BECCS could lead to nearly 4 GtCO2/year in emission reduction by 2050 (from 2 MtCO2/year in 2020). Meanwhile, CCS in industry and blue H2 production would increase to around 3 GtCO2/year (from 0.04 GtCO2/year today).

Source(s): Expert report

Unprecedented plans and investments in Chinese PV production capacity

Date: 13/03/2021

China, Asia, BRICS, Emerging markets, PV, Solar, Renewables, Electricity, Capacities, Supply

In 2020, despite the impact of Covid-19 on both China and the global economy, an unprecedented wave of PV production capacity expansions consumed China's PV industry, with over CNY300bn (US\$47bn) of total investments in PV manufacturing in 2020. Annual installations of some 70-90 GW of PV can be expected in China going forward.

Source(s): PV Magazine

Stockage d'électricité et batteries

Rosatom will build a 2 GWh ESS manufacturing facility in Russia by 2030

Date: 11/03/2021

BRICS, G8, Emerging markets, CIS, Russia, Electricity, Companies, Acquisition/sale, Electricity storage, Rosatom

Rosatom's integrator company for the energy storage business Renera, has finalized an agreement to acquire a 49% stake in Enertech International, a South Korean manufacturer of electrodes, lithium-ion storage cells and energy storage systems. Under this agreement, Rosatom will develop a manufacturing facility for lithium-ion cells and energy storage systems in Russia, with at least 2 GWh production capacity by 2030. The start of the first stage of production is scheduled for 2025. Lithium-ion batteries made in Russia will be applied in electric vehicles (buses and cars), special equipment, and in power grids. The alliance between Rosatom and Enertech International will strengthen Rosatom's development of non-nuclear businesses, especially in a growing industry such as lithium-ion storage systems.

Source(s): Rosatom

China moves ahead with 800 MWh Dalian vanadium BESS demonstration project

Date: 10/03/2021

BRICS, Emerging markets, Asia, China, Supply, Capacities, Projects, Electricity storage

Oilon has been selected to supply equipment for the 200 MW / 800 MWh Dalian BESS project, which is currently under construction and will go online in 2021 in Dalian (North-Eastern China). The project, equipped with vanadium redox flow batteries, is being developed by Dalian Henliu Energy Storage Power Station Company. The Dalian battery park is a demonstration project approved by the Chinese government to test the functionality of vanadium batteries connected to the power grid.

Source(s): Oilon

China reached 33.4 GW of ESS in 2020 with over 1 GW of BESS

Date: 09/03/2021

BRICS, Emerging markets, Asia, China, Electricity, Supply, Capacities, Market, Electricity storage

According to the CNESA (China Energy Storage Alliance), ESS storage capacity in China continued to grow in 2020 despite the effect of COVID-19. Internal industry drivers, external policies, carbon neutralization goals, and other positive factors allowed for ESS capacity in China (including physical energy storage, electrochemical energy storage, and molten salt heat storage projects) to increase by 2.7 GW (including 1083.3 MW / 2706.1 MWh of electrochemical ESS) and to reach 33.4 GW in 2020. In 2020, electrochemical energy storage system costs reached CNY 1,500/kWh (US\$231/kWh) and the year-on-year growth rate of energy storage projects was 136%. Indeed, the integration of renewable energy with energy storage became a general trend in 2020 and "unified" energy projects saw large-scale demonstration and promotion. In addition, new rules gradually removed obstacles for ESS to participate in the market and new models have appeared, led by "Sharing" and "Leasing". Moreover, breakthroughs have been made in a variety of energy storage technologies, resulting in a continued decline in costs.

Source(s): CNESA

Who will be the battery powerhouse? China, Japan and the West compete

Date: 02/03/2021

World, Electricity, Electricity storage

China, which has a 70% share of the global market for lithium-ion batteries, may soon wield the same type of power enjoyed by oil-producing nations in the 20th century. The US President has recently signed an executive order to review supply chain risks for four key products, including high-capacity batteries, while the European Union has approved subsidies for the battery industry in 12 member countries and is introducing recycled material requirements to push out Chinese products.

Source(s): Nikkei

Véhicules électriques

China Dynamics forms JV in Dubai to develop electric vehicle business

Date: 22/03/2021

China, United Arab Emirates, Asia, Middle-East, BRICS, Emerging markets, Electricity, Projects

China Dynamics, a provider of new energy vehicles, and W Motors have signed a Memorandum of Understanding (MOU) for strategic business cooperation, to create a 30:70 joint venture in Dubai (United Arab Emirates) for the production and sales of electric vehicles across the world.

Source(s): China Dynamics

The long read: Nickel and dime batteries to LFP

Date: 13/03/2021

World, Electricity, Technology, Electricity storage

Lithium-ion phosphate (LFP) batteries are making a comeback, thanks to high nickel prices and limited feedstock supply for the EV industry. In 2020, LFP batteries accounted for 40% of the stationary storage market (from 30% historically); they could reach 45% in 2021 and over 60% by 2025. They could also reach 30% of Chinese and European EV markets.

Source(s): PV Magazine

Hydrogène

Le couple nucléaire-hydrogène aux États-Unis, une romance en devenir ?

Date: 04/03/2021

United States, America, G8, Nuclear, Hydrogen, Electricity, Policy

Le Department of Energy (DOE) américain a publié en novembre 2020 son Hydrogen Program Plan (HPP) présentant la nouvelle stratégie américaine fédérale sur l'hydrogène. Parmi les pistes pour produire de l'hydrogène de façon rentable, le couplage de centrales nucléaires avec des capacités de production d'hydrogène suscite un intérêt économique, industriel et politique grandissant. Bien que les projets de couplage nucléaire-hydrogène du programme H2@Scale restent pour le moment des démonstrations techniques à l'échelle pré-commerciale, les exploitants américains envisagent de plus en plus une montée en puissance rapide des capacités installées.

Source(s): IFRI

Nucléaire

Success of nuclear reactor Hualong One suggests it can compete with wind and solar to drive China's decarbonisation

Date: 22/03/2021

China, Asia, BRICS, Emerging markets, Nuclear, Electricity, Projects, Power plants

China estimates that nuclear has the potential to compete with wind and solar power in the long term and bets on its Hualong One nuclear reactor as a clean source of energy with high supply consistency. China would have a strategic advantage over European companies, thanks to the uninterrupted construction of nuclear plants over the past three decades and its well-established supply chain.

Source(s): South China Morning Post

China launches Iter tritium breeding project

Date: 17/03/2021

China, Asia, BRICS, Emerging markets, Nuclear, Electricity, Projects

China National Nuclear Corporation has launched the first project of the Chinese Helium-Cooled Ceramic Breeder Test Blanket System (HCCB TBS) for the Iter fusion reactor. It marks the start of China's implementation phase of tritium breeding technology in Iter. Since it joined the Iter project in 2003, China has actively participated in the Iter test blanket programme, proposing and developing the concept of HCCB TBS.

Source(s): World Nuclear News

GEH and Fermi Energia OÜ will cooperate on small modular reactors in Estonia

Date: 10/03/2021

Europe, Estonia, Electricity, Nuclear, Companies, Technology, Power plants

GE Hitachi Nuclear Energy (GEH) and Fermi Energia have advanced their technology collaboration to support the potential deployment of a BWRX-300 small modular reactor (SMR) in Estonia. Through the teaming agreement GEH expects to support Fermi Energia in key areas such as licensing, supply chain development and continued development of the information and analysis needed for potential deployment of the BWRX-300 in Estonia.

The parties signed a MoU in 2019 in which the companies agreed to examine the economic feasibility of deploying a BWRX-300 SMR, i.e. a 300 MWe water-cooled, natural circulation SMR. Recently Fermi Energia also signed an MoU to study the potential for the deployment of small modular reactors (SMR) with Rolls-Royce.

Source(s): GE

Advancing US-Republic of Korea cooperation on nuclear energy

Date: 02/03/2021

United States, South Korea, America, Asia, G8, Nuclear, Electricity, Policy

The United States and South Korea are longstanding civil nuclear partners. Government and commercial entities in both countries should identify opportunities for joint participation in third-country projects, especially with an eye toward advanced reactor projects. Both countries should invest in export financing so that they can secure the long-term geopolitical relationships that accompany the sale of nuclear energy technologies. South Korean nuclear firms should also restore opportunities for US firms to participate in South Korea's domestic nuclear energy infrastructure.

Source(s): The Atlantic Council

Autres technologies

Russia approves a roadmap for the development of the LNG market by 2025

Date: 22/03/2021

BRICS, G8, Emerging markets, CIS, Russia, Natural Gas, LNG, Projects, LNG facilities, LNG liquefaction

The government of Russia has approved a roadmap for the development of the LNG market for the next 5 years. The plan pushes for an increase in LNG production and the creation of infrastructure for autonomous gasification in remote areas where it is not always possible to lay pipes, including in Siberia and the Far East. According to the roadmap, the number of operating LNG facilities will grow from 10 in 2020 to 81 in 2025 and the capacity of small-tonnage LNG facilities will increase fourfold from 21.7 t/hour in 2020 to 83.3 t/hour in 2025.

Source(s): Interfax (Russian), TASS (Russian)

The geopolitics of critical minerals supply chains

Date: 11/03/2021

World, Renewables, Electricity, Policy

As clean energy technology becomes the latest frontier for geoeconomic rivalry, the security of supply chains for rare earths and critical minerals—essential materials for clean energy—has become a global strategic issue. The fragility of global supply chains revealed by Covid-19 and rising competition from China have only heightened the importance of supply chain security for critical minerals. This report compares strategies and actions taken by the United States, European Union, and Japan, illuminating key economic, security, and geopolitical factors behind these evolving approaches to enhance the security of critical minerals supply chains.

Source(s): Center for Strategic and International Studies

Quad tightens rare-earth cooperation to counter China

Date: 11/03/2021

United States, Australia, India, Japan, America, Asia, Asia, Asia, BRICS, G8, Emerging markets, Electricity, Policy, Electricity storage

The United States, Australia, Japan, and India are considering collaborating to build a rare-earth procurement chain to counter the dominance China plays in supplying these crucial elements. The "Quadrilateral Security Dialogue" nations will first develop refining technologies and will arrange for government-affiliated financial institutions to provide syndicated loans to the mining and refining businesses. According to data from the U.S. Geological Survey, the U.S. accounted for 16% of global rare earth production in 2020. Australia accounted for 7%, and India 1%. While India accounts for 6% of the world's rare-earth reserves, Japan is one of the biggest rare-earth consumers. If the Quad nations can collaborate all along the chain, from production to consumption, their influence in the critical sector will rise.

Source(s): Nikkei