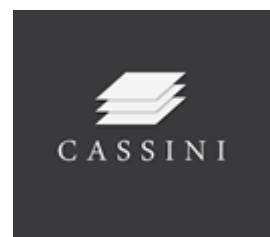




## **MINISTÈRE DES ARMÉES**

### **Observatoire de la sécurité des flux et des matières énergétiques**

**Revue de presse – 22 décembre 2020**



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## Actualités énergétiques régionales

### Afrique du Nord – Moyen Orient

#### Iraq's energy security strategy: A path to diversity and energy independence

**Date:** 14/12/2020

Iraq, Middle-East, Emerging markets, Electricity, Production, Supply, Power plants

Iraq is significantly dependent on Iranian natural gas and electricity imports. US sanctions on Iran's energy exports have created a serious challenge for Iraq, which currently has no alternative sources of supply. In the long term, however, a portfolio of diverse supply sources is required to create energy resiliency and security for Iraq.

**Source(s):** [Atlantic Council](#)

#### China set to bail out Iraq with multibillion-dollar oil deal

**Date:** 08/12/2020

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

The Chinese state-owned oil exploration & production firm Zenhua Oil, an affiliate of defence corporation Norinco, is expected to win bid for prepayment contract in Iraq. Under the term of the 5-year agreement (yet to be approved by the Iraqi Prime Minister), the company would buy 130 kb/d, paying upfront for one year of supply, which at current prices would bring in more than US\$2bn. The semi-autonomous Kurdistan Regional Government in northern Iraq has used similar contracts in the past, as have Chad and the Republic of Congo.

**Source(s):** [Bloomberg](#)

### Méditerranée Orientale

#### The US backs the construction of the EastMed gas pipeline

**Date:** 21/12/2020

Europe, Cyprus, Greece, Middle-East, Israel, Natural Gas, Projects, Gas pipeline

The US authorities are backing the construction of the Eastmed gas pipeline, which would deliver 10 bcm/year of gas from offshore Israel to Cyprus, Greece and Italy. 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. IGI Poseidon, the joint venture of the Greek gas transmission company DEPA and the Italian energy group Edison (part of EDF), which would build the European gas infrastructure, has already invested €70m in the planning. 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):** [Anadolu Agency](#), [Reuters](#)

## The Trans Adriatic Pipeline: Why it matters and what comes next?

**Date:** 02/12/2020

Turkey, Europe, Emerging markets, Natural Gas, Projects, Gas pipeline

TAP is bringing change to regional energy markets and will surely have political repercussions. It brings 10 bcm/year of natural gas from the Shah Deniz offshore field in the Caspian to consumers in the EU and the Western Balkans, helps diversify supplies away from Russia, and enhances Azerbaijan's position on European markets. TAP is also a crucial step for Turkey. Together with the Trans-Anatolian Pipeline (TANAP) and TurkStream, it transforms the country from an importer to a transit route for gas.

**Source(s):** Middle East Institute

## Europe

### The Bradwell B nuclear project gets power generating licence (UK)

**Date:** 22/12/2020

G8, Europe, United Kingdom, Electricity, Nuclear, Companies, Projects, Power plants, China General Nuclear Power Corporation (CGN), EDF

The UK's Gas and Electricity Markets regulator Ofgem has granted an electricity generating licence to the 2.2 GW Bradwell B nuclear project in Essex (United Kingdom). The Bradwell B project is developed by General Nuclear Services (GNS), a joint venture between French energy group EDF (33.5%) and Chinese state-owned corporation China General Nuclear Power Group (CGN) (66.5%). It will consist of up to two Chinese-designed Hualong One (HPR1000) reactors, rated 1.1 GW each. The approval process for the project was launched in 2017 and the technology was approved by the Office for Nuclear Regulation in November 2018. A planning application will be submitted to the British National Infrastructure Planning Inspectorate in 2022.

**Source(s):** Bradwell B

### Russian, Chinese intelligence targeting Norwegian oil secrets: report

**Date:** 18/12/2020

Norway, Europe, Crude oil, Oil, Production, Supply

Russia, China and other countries are using espionage to glean secrets of Norway's petroleum industry and plans by its government to cut or increase production. The Norwegian counter-intelligence service PST has warned of possible attempts to recruit sources or hack computers.

**Source(s):** Reuters

### Black Sea gas campaigning 2020

**Date:** 14/12/2020

Turkey, Europe, Emerging markets, Oil, Projects

New gas exploration campaigns in the Black Sea are underway, yet not without their challenges. Offshore gas explorations in the Black Sea bear the promise of reducing Europe's energy dependence on Russia, but the region's security runs along the East-West political fault line. Russian-occupied Crimea's EEZ overlaps with what remains of Ukraine's, as well as with the EEZs of Turkey and Romania, the latter with an estimated 200 bcm in offshore gas reserves.

**Source(s):** Middle East Institute

## NATO's energy security rests on a fragile cease-fire

**Date:** 11/12/2020

BRICS, G8, Emerging markets, Europe, CIS, Russia, Natural Gas, Supply

NATO's energy security is now intertwined with the recent cease-fire agreement between Azerbaijan and Armenia. Fuelled by Russian arms and military training, the Armenia-Azerbaijan conflict threatens to shake confidence in Europe's drive to reduce its energy reliance on Moscow.

**Source(s):** [RealClear World](#)

## Russia restarts Nord Stream 2 pipeline construction despite U.S. sanctions

**Date:** 11/12/2020

Germany, Russia, Europe, CIS, BRICS, G8, Emerging markets, Natural Gas, Projects, Gas pipeline

Russia has resumed construction of the Nord Stream 2 gas pipeline to Germany, laying pipes after a one-year hiatus prompted by U.S. sanctions. The consortium, led by Gazprom, has still to lay more than 100-km of pipeline, although more than 90% of the project has been completed.

**Source(s):** [Reuters](#)

## Asie

### Pakistan's "no new coal-fired power" announcement – implications for coal across the Belt and Road Initiative

**Date:** 21/12/2020

Pakistan has abandoned plans to have any more power based on coal. It is not clear whether the statement means that existing coal projects that have not yet begun construction will be cancelled or that no new coal proposals will be added to the current development pipeline. However, the commitment to end further coal-fired power is meaningful, particularly given the strategic importance of the China-Pakistan Economic Corridor, under which most of the coal plants are being developed.

**Source(s):** [Utilities Middle East](#)

### Pakistan will start construction of Karachi-Lahore gas pipeline in 2021

**Date:** 21/12/2020

BRICS, G8, Emerging markets, CIS, Russia, Asia, Pakistan, Natural Gas, Projects, Gas pipeline

Pakistan plans to start construction works on the Pakistan Stream Gas Pipeline project in July 2021. The 12.4 bcm/year gas pipeline would connect Karachi to the provincial capital Lahore over 1,100 km. In November 2020, Pakistan and Russia signed a revised agreement to build the Pakistan Stream Gas Pipeline, formerly known as the North-South Gas Pipeline. Under the new agreement, the project will be executed through a special purpose company incorporated in Pakistan, and Pakistan will own 74% of the project, while Russia will have a 26% stake. In 2015, Resources, a subsidiary of Rostec (Russia), had been selected to build the gas pipeline project under a build, own, operate and transfer (BOOT) model and planned to transfer its ownership to Pakistan after 25 years. Total investment was estimated at US\$2.5bn. The project is still at the planning stage due to US sanctions against Russian entities and dissensions between the two parties over fees. Pakistan refused to move forward with a new proposed Russian partner, whose owner is on the US sanctions list.

**Source(s):** [Pakistan Today](#), [Offshore Energy](#)

## Chinese dams under U.S. scrutiny in Mekong rivalry

**Date:** 13/12/2020

China, Asia, BRICS, Emerging markets, Hydro, Renewables, Electricity, Projects, Power plants

The Mekong Dam Monitor, part-funded by the US State Department, uses data from cloud-piercing satellites to track and publish water levels at Chinese dams on the Mekong river. China and the United States have rival bodies working with Mekong countries: the Chinese Lancang-Mekong Cooperation and the Mekong-U.S. Partnership.

**Source(s):** [Reuters](#)

## Tracing the Chinese footprints in Kazakhstan's oil and gas industry

**Date:** 12/12/2020

BRICS, Emerging markets, CIS, Kazakhstan, Asia, China, Oil, Supply

Kazakhstan has looked to advance its oil and gas processing capacity with the aim to reduce reliance on imported processed oil and create a diversified export portfolio. China is among the top three countries of origin for processed oil in Kazakhstan. However, Kazakhstan's lack of capital combined with a reluctance to allow foreign investors (especially Chinese) more control over long-term profits in Kazakhstan's national strategic assets made large-scale bilateral project negotiations difficult.

**Source(s):** [The Diplomat](#)

## TVEL to introduce new fuel, longer cycle at Kudankulam (India)

**Date:** 09/12/2020

Russia, India, CIS, Asia, BRICS, G8, Emerging markets, Nuclear, Electricity, Contract, Companies, Rosatom

Nuclear Power Corporation of India Limited and TVEL, the nuclear fuel manufacturer subsidiary of Russia's Rosatom, have signed a supplementary agreement to the fuel supply contract for the VVER-1000 reactors in operation at Kudankulam (India). The agreement includes the introduction of TVS-2M nuclear fuel and an extension of the fuel cycle from 12 to 18 months.

**Source(s):** [World Nuclear News](#)

## East meets East: An assessment of the proposed Chennai-Vladivostok maritime corridor

**Date:** 07/12/2020

Russia, India, CIS, Asia, BRICS, G8, Emerging markets, Oil, Supply

In 2019, India and Russia announced their intent to connect the ports in their respective cities, Chennai and Vladivostok. One year on, the project remains only on paper. Both India and Russia have been active investors in each other's energy sector, but their export and import volumes have remained low. In recent years, efforts to rectify this situation have led to important developments in energy cooperation between the two nations.

**Source(s):** [Observer Research Foundation](#)

## Les relations politiques entre la Chine et l'Australie, un élément-clé de la géopolitique mondiale des ressources

**Date:** 02/12/2020

Australia, China, Asia, Asia, BRICS, Emerging markets, LNG, Natural Gas, Policy

Les relations politiques entre la Chine et l'Australie se sont fortement dégradées avec, à la clé, la mise en œuvre de la part du géant asiatique de barrières tarifaires et non tarifaires. Si les produits agricoles ont été les premières matières premières à être touchées, les exportations australiennes de gaz naturel liquéfié pourraient également être dans le viseur de Pékin. Canberra dispose, néanmoins, d'une carte maîtresse : son minerai de fer dont le secteur sidérurgique chinois reste très dépendant.

**Source(s):** [Policy Center for the New South](#)

## China plans to develop up to 60 GW of hydropower capacity in Tibet

**Date:** 01/12/2020

BRICS, Emerging markets, Asia, China, Electricity, Renewables, Hydro, Large-hydro, Policy, Projects, Power plants

China plans to develop up to 60 GW of hydropower capacity on a section of the Brahmaputra (Yarlung Tsangbo) River, which flows from Tibet into India and Bangladesh. The project was included in the proposals for formulating the country's 14th Five-Year Plans (2021-2025) and its long-term goal through 2035. China estimates its hydropower potential at around 700 GW, nearly twice its current hydropower capacity of more than 356 GW (2019). In 2015, China commissioned the 510 MW Zangmu hydropower plant (or Zam hydropower plant) on the Brahmaputra (Yarlung Zangbo) river in the Shannan prefecture of Tibet. In November 2020, China Three Gorges Power (CTGPC) fully commissioned the 22.5 GW Three Gorges hydropower project on the Yangtze River. The construction of the project began in 1994 and started generating electricity in 2003. Construction was completed in 2009.

**Source(s):** [NDTV](#), [Reuters](#)

## China harasses PTTEP's exploration activity off Malaysia

**Date:** 30/11/2020

Malaysia, Asia, Emerging markets, Oil, Projects

The Chinese coast guard has been harassing a drilling rig contracted to Thailand's PTTEP in Malaysian waters off Sarawak. The Thai national oil company is appraising its giant Lang Lebah field, discovered in 2019, which is estimated to hold at least 57 bcm of natural gas.

**Source(s):** [Energy Voice Asia Maritime](#), [Transparency Initiative](#)

## Afrique

### China lends US\$2.5bn to Nigeria to build the AKK gas pipeline

**Date:** 17/12/2020

Emerging markets, Africa, Nigeria, Natural Gas, Projects, Investments, Gas pipeline, Transmission (gas)

The Bank of China and the Chinese export and credit insurance corporation Sinosure have approved a 15-year, US\$2.2bn loan to the Nigerian National Petroleum Corporation (NNPC) for the construction of the US\$2.6bn Ajaokuta-Kaduna-Kano gas pipeline project, which is due to enter operation in 2023. The Nigerian government is expected to issue a sovereign guarantee to back the loan. The NNPC will provide the remaining 15% (US\$400m) to fund the project. The Nigerian company has selected Brentex/China Petroleum Pipeline Bureau-CPP Consortia and Oilserve/China First Highway Engineering Company-CFHEC Consortia as the engineering procurement and construction (EPC) contractors for the project. The AKK gas pipeline will deliver 3.5 bcf/d (99 mcm/d or 36.1 bcm/year) of gas from several gas projects in the south of the country. In a first phase, it will deliver 2.5 bcf/d (57 mcm/d or 20.7 bcm/year) to domestic customers. Developed by the NNPC using a build and transfer model, the pipeline, which links the south-west of Nigeria to the North, is part the Trans-Nigeria Gas Pipeline (TNGP) project, and the Trans-Sahara Gas Pipeline System, connecting Nigeria to Algeria. In July 2020, Nigeria officially launched the construction of the project.

**Source(s):** [Vanguard](#), [Punch](#)

### EDM secures funding for 450 MW gas-fired plant from OPEC and DFC (Mozambique)

**Date:** 17/12/2020

Emerging markets, Africa, Mozambique, Electricity, Thermal, Gas-fired power gen., Companies, Investments, Power plants

EDM (Electricidade de Moçambique), Mozambique's state-owned electricity company, has secured up to US\$200m from the DFC (U.S. International Development Finance Corporation) and up to US\$50m from OPEC to fund its Central Térmica de Temane (CTT) project located in the Temane area (Southern Mozambique). The 450 MW gas-fired power plant will be designed and constructed by Spanish contractor TSK and will incorporate Siemens gas turbines. The project is scheduled to start operation in the fourth quarter of 2021. The plant will supply power to EDM through a 25-year tolling agreement.

**Source(s):** [Africa Oil and Power](#), [Globeleq](#)

### Activists are fighting for a renewable future in Sub-Saharan Africa. Chinese coal projects threaten to dirty those plans

**Date:** 10/12/2020

Africa, Coal-fired power gen., Thermal, Electricity, Projects, Power plants

Despite the reputational risk, Chinese banks and companies are still financing seven coal plants in Africa, with 13 more in the pipeline, mostly south of the Sahara, while African leaders are choosing quick fix solutions to electrify their countries.

**Source(s):** [CNN](#)



## Chinese-built power plant in Uganda to reduce power tariff by 17.5%

**Date:** 01/12/2020

Uganda, Africa, Hydro, Renewables, Electricity, Projects, Power plants

The 600 MW Karuma hydro power plant in Uganda is financed by the Export-Import Bank (EXIM) of China. The bank is financing 85% of the project while the rest is funded by the Ugandan government. Another Chinese-built dam, the 183 MW Isimba hydro power plant was commissioned in 2019.

**Source(s):** [Xinhua](#)

## Autres

### China's CEEC will build 869 MW of solar, wind projects in Brazil

**Date:** 23/12/2020

BRICS, Emerging markets, America, Brazil, Electricity, Renewables, PV, Onshore, Solar, Wind, Projects, Contract, Power plants

The Chinese state-owned energy group China Energy Engineering Corporation (CEEC, also known as Energy China), has entered into two engineering, procurement and construction (EPC) contracts for the construction of renewable energy projects in Rio Grande do Norte, in north-eastern Brazil. CEEC, through Gezhouba Group, will build a 638 MW solar PV project and a 231 MW wind project, in addition to associated equipment, such as 230 kV substations and 230 kV transmission lines. CEEC had already taken part to the construction of transmission lines for the Belo Monte hydropower plant in Brazil.

**Source(s):** [CEEC](#), [Reuters \(Portuguese\)](#)

### The OPEC+ will relax oil production cuts to 7.2 mb/d as of January 2021

**Date:** 07/12/2020

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

The OPEC+ has agreed to relax crude oil production cuts by 500 kb/d, from 7.7 mb/d to 7.2 mb/d as of January 2021. In addition, the group decided to hold monthly OPEC and non-OPEC ministerial meetings starting January 2021 to assess market conditions and decide on further production adjustments for the following month, with further monthly adjustments being no more than 500 kb/d. In April 2020, the OPEC+ decided to cut their overall crude oil production by 9.7 mb/d over the 1 May 2020 - 30 June 2020 period, in an attempt to reduce the global oversupply and to firm up depressed oil prices in a context of COVID-19 pandemic. The production cuts were calculated on the basis of the October 2018 production level, except for Saudi Arabia and Russia that have a baseline level of 11 mb/d. Production cuts were then relaxed to 7.7 mb/d from 1 August 2020 (delayed from 1 July 2020 in June 2020) to 31 December 2020. and were expected to be relaxed further to 5.8 mb/d from 1 January 2021 to 30 April 2022. However, renewed lockdowns due to COVID-19 containment measures continue to affect the global economy and oil demand recovery, prompting the OPEC+ to relax production cuts on a lesser extent.

**Source(s):** [OPEC](#)

## Stratégies d'entreprises

### Stratégies

#### China's CHMC will build a 150 MW dam in Cambodia

**Date:** 14/12/2020

Asia, Cambodia, Electricity, Renewables, Hydro, Large-hydro, Projects, Power plants

The Cambodian Ministry of Mines and Energy has signed implementation agreements for a 150 MW hydropower plant and two 500 kV transmission lines. The Chinese state-owned China National Heavy Machinery Corp (CHMC) will build the 150 MW Stung Tatai Leu dam project on the Tatai River in the Thma Bang district of the Koh Kong province, at a cost of US\$389m. The project was awarded to CHMC under a 39-year build-operate-transfer (BOT) contract, including four years for construction and 35 years for business operation. The state-owned power utility Électricité du Cambodge will buy the power generated from the dam (527 GWh/year) at US\$7.9c/kWh. In addition, the German company SchneiTec will build a 199 km long, 500 kV transmission line between Phnom Penh and the Cambodia-Lao PDR border under a 28-year BOT contract, including four years for construction and 25 years for business operations. The project will cost US\$330m. SchneiTec was also selected to build a second 500 kV transmission line between the Battambang province and the Cambodian-Thai border over 107 km long, under a 39-year contract, including four years for construction and 35 year for business operations. The transmission line requires a US\$111m investment.

**Source(s):** [Phnom Penh Post](#)

#### Tracking China's overseas development finance

**Date:** 07/12/2020

China, Asia, BRICS, Emerging markets, Electricity, Investments

The China's Overseas Development Finance Database tracks lending commitments by China's two major policy banks, the China Development Bank (CDB) and the Export-Import Bank of China (ExIm), from 2008-2019, totalling 615 development finance projects with known and validated physical locations, as well as 243 other development finance projects without specific geographic footprints that are not shown in the interactive map.

**Source(s):** [Global Development Policy Center](#)

#### UOB-HKUST IEMS study reveals growing need for sharper focus on sustainability in Belt and Road Initiative projects in ASEAN

**Date:** 01/12/2020

China, Asia, BRICS, Emerging markets, Electricity, Investments, Power plants

As part of the BRI, many Chinese state-owned and private companies have been implementing large-scale infrastructure and FDI projects in the region to promote greater connectivity between mainland China and ASEAN. The Chinese government has recognised the need to place greater priority on promoting green and sustainable BRI projects, calling for Chinese companies to take active steps to ensure that their projects comply with regulations such as environmental standards and labour laws.

**Source(s):** [Institute for Emerging Market Studies, UOB](#)

## Investissements et acquisitions

### Eleris Energy plans to develop 2.2 GW of solar capacity in Bangladesh

**Date:** 18/12/2020

Emerging markets, Asia, Bangladesh, Electricity, Renewables, Solar, PV, Projects, Power plants

Eleris Energy, an US infrastructure group, plans to develop three solar projects, totalling 2.2 GW, and an LNG import project in Bangladesh. The company plans to implement two 600 MW solar projects under joint ventures with state-owned power utilities Bangladesh Power Development Board (BPDB) and Ashuganj Power Station Company Ltd (APSCL); the projects would be located in Chattogram and would be developed in three phases of 200 MW each, on a build, own and operate (BOO) basis. The third 1,000 MW solar project - Swarno Dweep - would be built in partnership with the Bangladesh Army in Noakhali and would also be developed in 200 MW phases. The proposed LNG import terminal would be built at Kutubdia island in Chattogram.

**Source(s):** [The Financial Express](#)

### Czechia may delay the tender on the Dukovany-5 nuclear project

**Date:** 10/12/2020

Europe, Czechia, Electricity, Nuclear, Policy, Tender, Companies, Projects, Power plants, CEZ

The Czech government may delay a tender to build a new 1.2 GW unit at the Dukovany nuclear power plant, which was initially expected to be launched by the end of 2020. The country is currently discussing whether to exclude Rosatom and China General Nuclear Power (CGNPC) to take part to the auction due to security concerns. The government is now considering four options: allowing Russian and Chinese companies to bid in the tender, allowing them in as minority members of wider consortia, not allowing them in, or delaying the process after the October 2021 election. The Czech state-owned power utility ČEZ already operates four VVER-440 reactors at the Dukovany nuclear power plant (2,040 MW) and two VVER-1000 reactors at the Temelín plant (2,160 MW). Replacing the older reactors with new units is viewed as crucial for the country's energy security, as the four Dukovany reactors are expected to be shut down permanently between 2035 and 2037. In July 2020, the Czech government signed agreements with ČEZ for the development of a new 1,200 MW reactor at Dukovany. The agreement encompassed the overall general framework of the €6bn project and its initial phase and called for a tender to select a construction company. ČEZ would have a preferred list of suppliers (by 2022) and would sign a contract with one supplier by 2024. Construction would start in 2029, and commissioning would be expected in 2036. Rosatom, China General Nuclear Power (CGNPC), EDF, KHNP, Westinghouse, and a joint venture between Orano (formerly known as Areva) and Mitsubishi are likely to participate in the construction tender. The project will benefit from an interest-free loan and power from the new nuclear reactor would be sold at a fixed tariff. Consumers would make up the gap if that price is higher than wholesale market prices. The government will have to seek approval for the European Commission to ensure its nuclear program meets EU state aid rules.

**Source(s):** [Reuters](#)

### Pakistan's 701 MW Azad Pattan hydropower project signs new agreements

**Date:** 07/12/2020

Emerging markets, Asia, Pakistan, Electricity, Renewables, Hydro, Large-hydro, Projects, Power plants

Azad Pattan Power Private Ltd has signed water use and implementation agreements with the Government of Azad Jammu and Kashmir for the 701 MW Azad Pattan hydropower project on the Jhelum River. Azad Pattan Power Private Ltd is a joint venture between China Gezhouba Group and Pakistani renewable energy developer Laraib Group. The consortium was awarded the project under a build-own-operate-transfer (BOOT) basis for a term of 30 years. The project, which is developed

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within the China-Pakistan Economic Corridor (CPEC) framework, will require a US\$1.4bn investment, financed by a consortium of lenders including China Development Bank, China Construction Bank, Industrial and Commercial Bank of China and Bank of China. It has already secured water use agreement and tripartite power purchase agreements with the Government of Punjab. The power plant and is expected to be commissioned in 2027, when it should generate 3.3 TWh/year.

**Source(s):** [The Nation](#)

## **Pakistan starts loading fuel at the Karachi-2 nuclear power project**

**Date:** 04/12/2020

Emerging markets, Asia, Pakistan, Electricity, Nuclear, Projects, Power plants

China National Nuclear Corporation (CNNC) has started loading fuel at the second unit of the Karachi nuclear power plant in Pakistan. Hot functional tests were completed in September 2020 and this new milestone paves the way for commissioning. Two 1,100 MW Chinese-designed ACP-1000 units (Hualong One reactors) are currently being built on the site of the 90 MW Kanupp-1 reactor near Karachi in the Sindh province. China National Nuclear Corporation and China Nuclear Engineering and Construction Corporation (CNEC) have been selected to build the PKR959bn (US\$9.6bn) project on a turnkey basis. Pakistan's Karachi nuclear power project is the first export of the Hualong One reactor outside China. Construction started in 2015 at unit-2 and in 2016 at unit-3. The two reactors are expected to be commissioned in 2021 and 2022, respectively.

**Source(s):** [Dawn](#), [The Financial Express](#)

## **China-backed refinery starts operations in Laos**

**Date:** 02/12/2020

Emerging markets, Asia, Lao PDR, Oil, Refined products, Projects, Refineries

Lao Petroleum and Chemical (Laopec), which is 59% owned by China's state-owned Yunnan Provincial Overseas Investment, 16% by the private Chinese company Yunnan Dongyan Industrial and 20% by the local company Lao State Fuel, has commissioned a 1 Mt/year refinery in Laos, the first of the country. Its capacity could triple in another two phases.

**Source(s):** [Argus Media](#)

## **Exxon Mobil in talks to buy stake in Indian oil, gas fields**

**Date:** 02/12/2020

BRICS, Emerging markets, Asia, India, Oil, Companies, Acquisition/sale, ExxonMobil

Energy supermajor Exxon Mobil Corp is in talks to buy a stake in producing oil and gas fields in India. In October 2019, it had signed two MoUs, with state-owned Oil and Natural Gas Corporation (ONGC) to offer its expertise and technology for developing resources in offshore blocks, and with Indian Oil Corporation (IOC) to explore ways to supply LNG to India.

**Source(s):** [The Financial Express](#)

## Juridique et institutionnel

### China bans thermal coal imports from Australia

**Date:** 15/12/2020

Asia, Australia, Coal/Lignite, Coal, Supply, Trade

China has formally blocked Australian coal imports, after months of restrictions. The decision was taken by the Chinese National Development and Reform Commission (NDRC), which has authorised power plants to import without clearance restrictions, except for Australia, in an attempt to "stabilise coal purchase prices". China plans to increase domestic coal production and to raise imports from Mongolia, Indonesia and Russia. In 2019, China accounted for 24% of Australia's thermal coal exports. Australia's coal and lignite production has remained stable since 2016 after a significant increase between 2011 and 2015 (+5.4%/year on average). It amounted to 500 Mt in 2019 (of which 74 Mt was lignite). Australia is the world's third largest hard coal producer (fifth when accounting for lignite).

**Source(s):** [The Sydney Morning Herald](#)

### United States blacklists Chinese companies, including CNOOC

**Date:** 03/12/2020

China, Asia, BRICS, Emerging markets, Oil, Companies, CNOOC

The United States has added China's oil giant CNOOC to a blacklist of 35 alleged Chinese military-owned companies, preventing US investors from buying the companies' securities. In addition, the Secretary of Energy has issued a prohibition order that prohibits utilities that supply critical defense facilities (CDF) from procuring from the China, specific BPS electric equipment that poses an undue risk to the bulk-power system, the security or resilience of critical infrastructure, the economy, national security, or safety and security of Americans.

**Source(s):** [Reuters](#), [US DOE](#)

## Innovations technologiques

### Energies renouvelables et biocarburants

#### Ocean energy capacity could reach 10 GW in 2030 worldwide

**Date:** 03/12/2020

World, Electricity, Renewables, Wave/Tidal, Data, Forecasts

According to an expert report, ocean energy capacity could reach 10 GW in 2030 worldwide theoretically generating between 45,000-130,000 TWh/year. The current project pipeline under development for wave and tidal stream technology totals 3 GW, of which 55% is located in Europe. The current worldwide ocean energy installed capacity comprises 521 MW of tidal barrage, 13 MW of tidal stream (2.31 MW wave and 10.6 MW tidal). The EU recently issued its EU Strategy on Offshore Renewable Energy, which foresees an increase in Europe's offshore wind capacity from 12 GW to at least 60 GW by 2030 and to 300 GW by 2050. The European Commission aims to complement this with 40 GW of ocean energy and other emerging technologies such as floating wind and solar by 2050. The strategy will require around €800bn (US\$946bn) in investments.

**Source(s):** IRENA I, IRENA II

#### China's solar glass shortage to drag on panel output into 2021

**Date:** 03/12/2020

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

China, the world's biggest manufacturer of photovoltaic products, with almost 80% of the world's solar panel production capacity in 2019, is facing a shortage of solar glass that should persist through the first half of 2021, as demand is outpacing production capacity addition.

**Source(s):** Reuters

### Stockage d'électricité et batteries

#### New York Power Authority plans 450 MW battery storage projects by 2030 (US)

**Date:** 17/12/2020

G8, America, United States, Companies, Supply, Capacities, Electricity storage

The New York Power Authority (United States) has approved the VISION2030 new strategic plan, which includes its ambition to go carbon-free in its power networks by 2035 and the deployment of 450 MW of battery storage by 2030. NYPA's new plan includes the transitioning of its gas-fired power plants fleet to low or zero carbon emissions technologies, including battery storage by 2035. In October 2020, the NYPA signed an agreement with a coalition of environmental groups to investigate how it can reduce emissions in its 416 MW peaker plants, considering potential siting of BESS and hydrogen blending at the power plants. NYPA currently supplies around 25% of New York's electricity and produces around 80% of its power from 16 hydroelectric power plants.

**Source(s):** New York Power Authority

## The European Commission proposed to modernise EU legislation on batteries

**Date:** 15/12/2020

Europe, Policy, Electricity storage

The European Commission has proposed to modernise EU legislation on batteries, under its new Circular Economy Action Plan. It proposes mandatory requirements for all batteries (i.e. industrial, automotive, electric vehicle, and portable) placed on the EU market, such as the use of responsibly sourced materials, the minimum content of recycled materials, carbon footprint, performance and durability and labelling, and collection and recycling targets. From 1 July 2024, only rechargeable industrial and electric vehicles batteries for which a carbon footprint declaration has been established, can be placed on the market. The Commission aims to significantly improve the collection and recycling of portable batteries, from the current 45% collection rate to 65% in 2025 and 70% in 2030. Other batteries (industrial, automotive or electric vehicle ones) have to be collected in full. All collected batteries have to be recycled and high levels of recovery have to be achieved, in particular of valuable materials such as cobalt, lithium, nickel, and lead.

**Source(s):** [European Commission](#)

## Hydrogène

### NuScale Power releases updated evaluation for 77 MWe module clean hydrogen production

**Date:** 09/12/2020

United States, America, G8, Nuclear, Electricity, Technology

NuScale Power has updated evaluations for the technical feasibility and economics of producing hydrogen using heat and electricity from a NuScale Power Module™ (NPM). Compared to a previous hydrogen study led in 2014, NPM can generate an additional 25% more power per module for a total of 250 MWt (or 77 MWe) per module.

**Source(s):** [NuScale Power](#)

### Italy issues Hydrogen strategy and will deploy 5 GW of electrolyzers by 2030

**Date:** 03/12/2020

G8, Emerging markets, Europe, Italy, Hydrogen, Policy, Supply, Capacities, Projects, Forecasts, Investments, Market

The Italian government has issued its Hydrogen strategy for 2050, expecting hydrogen to account for 2% of final energy demand by 2030 and 20% by 2050. Italy will look to develop up to 5 GW of electrolyser capacity by 2030. The strategy also foresees the gradual replacement of diesel-fueled trains and the deployment of 4,000 long-haul trucks. Furthermore, hydrogen is expected to be injected into the national gas network. This plan will call for around €2-3bn in investments in distribution infrastructure, €5-8bn in hydrogen production, and €1bn in R&D.

**Source(s):** [Strategia Nazionale Idrogeno \(in Italian\)](#), [PV Magazine](#)

## Véhicules électriques

### China converting battery electric vehicles into platinum-linked hydrogen fuel cell vehicles

**Date:** 09/12/2020

China, Asia, BRICS, Emerging markets, Electricity, Technology

China is converting battery electric vehicles such as municipal buses and trucks into hydrogen fuel cell vehicles, especially in the north of the country, where the climate is not favourable to battery electric vehicles but where large solar and wind resources could fuel hydrogen vehicles.

**Source(s):** [Engineering News](#)

### How America got outmaneuvered in a critical mining race

**Date:** 02/12/2020

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

China's state-directed industrial policy – investing massively in cobalt mining operations in Africa since 2000 - has outmaneuvered America's laissez-faire approach to securing access around the world to cobalt, a metal that's taking on growing economic and strategic importance, with the US accepting greater risk of disruption or shortages in exchange for lower short-term costs. Ready access to cobalt and other minerals will shape the global competitive landscape in coming decades.

**Source(s):** [Politico](#)

### China's Ganfeng to finance lithium project in Argentina and lithium battery recycling plant in Mexico

**Date:** 02/12/2020

Argentina, America, Emerging markets, Electricity, Projects

China's major lithium Ganfeng Lithium will invest US\$100m in the development and construction of the Cauchari-Olaroz lithium salt lake project in Argentina, in line with its new energy vehicle industry development strategy. In addition, Ganfeng Lithium will build a lithium-ion battery recycling plant in Mexico, where the company is a partner in the first lithium mine.

**Source(s):** [Argus Media](#), [Diálogo Chino](#)

## Nucléaire

### China's 'artificial sun': misleadingly named but key to fusion energy hopes

**Date:** 07/12/2020

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

China has experimented its HL-2M Tokamak fusion reactor, as the country plans to achieve commercial production of fusion energy by 2050. China may proceed with building the China Fusion Engineering Test Reactor (CFETR) as soon as in 2021 but the ambitious project still faces major uncertainties.

**Source(s):** [South China Morning Post](#)



## Transports

### US Department of Energy announces US\$128m for sustainable transportation research

**Date:** 15/12/2020

G8, America, United States, Policy, Investments

The US Department of Energy has announced an investment of up to US\$128m in funding for R&D of sustainable transportation resources and technologies, including up to US\$60m to support priorities in batteries and electrification, advanced engine and fuel technologies, materials, mobility systems, and transportation and energy analysis. Another US\$35m will support bioenergy feedstock technologies, with a focus on municipal solid waste and algae to produce biofuels, biopower, and bioproducts. Up to US\$33m will support innovative hydrogen and fuel cell R&D, infrastructure supply chain development and validation, and cost analysis activities.

**Source(s):** [US Department of Energy](#)

## CCS

### Norway approves the 1.5 MtCO<sub>2</sub>/year Northern Lights CO<sub>2</sub> storage project

**Date:** 16/12/2020

Europe, Norway, CO<sub>2</sub> emissions, Companies, Projects, Technology, CCS, Equinor, Shell, Total

The Norwegian government has approved the 1.5 MtCO<sub>2</sub>/year Northern Lights CO<sub>2</sub> transport and storage project, developed by a consortium of Equinor, Shell and Total. In May 2020, partners decided to invest NOK6.9bn (€630m) in the Northern Lights carbon capture and storage (CCS) project in Norway. The project is developed as part of the Norwegian CCS project "Langskip"; supported by the Norwegian government. It will capture CO<sub>2</sub> from industrial sources, transport it by ships and inject it to be permanently stored 2,600 metres below the seabed. The CO<sub>2</sub> receiving terminal will be located in Øygarden in Western Norway. The first phase is scheduled to be commissioned in 2024. The project could be expanded at a later stage.

**Source(s):** [Equinor, Norway's Ministry of Petroleum and Energy \(Norwegian\)](#)

### CCS global capacity grew by 33% in 2020

**Date:** 07/12/2020

World, Technology, CCS, Data

According to an expert report, the CCS global capacity (operating and under development) increased by 33% in 2020. There are currently 65 commercial CCS facilities in various stages of development globally and the pipeline continues to grow led by the US which houses 12 of the 17 new commercial facilities added to the project pipeline in 2020. The US has some of the most advanced supportive policies for CCS, including the enhanced 45Q tax credit and the California Low-Carbon Fuel Standard. Meanwhile, further interest in the technology rose with Norway's green light for the Langskip project and the Porthos Project in Netherlands (final investment decision expected in 2021). The United Kingdom also shows strong interest in the technology as it recently earmarked £1bn (US\$1.35bn) to the development of four hub and clusters by the end of 2030. CCS will likely play a significant role in the development of decarbonised hydrogen worldwide. According to the report, steam methane reformation with CCS and black coal gasification with CCS have lower costs (around US\$1.8-2.5/kgH<sub>2</sub>) than hydrogen production with dedicated RES power (around US\$3.75-7.7/kgH<sub>2</sub>). Furthermore, 98% of the current hydrogen production in the world is from coal (via gasification) and gas (by steam methane reforming (SMR)).

**Source(s):** [Global CCS Institute](#)

## Autres technologies

### China's moon plans: A cautionary note

**Date:** 04/12/2020

China, Asia, BRICS, Emerging markets, Electricity, Technology

China has finished gathering soil samples from the moon, as the moon may be a source for critical and rare minerals — including platinum, palladium, rhodium, scandium, and yttrium — as well as Helium-3, an energy source.

**Source(s):** [The Diplomat](#)

### Energy Department seeks to boost mining through loan programs Trump proposed cutting

**Date:** 01/12/2020

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

The U.S. Department of Energy has issued new guidance for applications to the Loan Programs Office, stating a preference for projects related to critical minerals, including uranium, aluminum and titanium. The United States has no domestic production for 14 of the critical minerals and is completely dependent on imports to supply its demand. In addition, the United States imports more than half of its annual consumption for 31 of the 35 critical minerals, and 80% of its rare earth elements directly from China.

**Source(s):** [The Hill](#), [US Department of Energy](#)