MINISTERE DES ARMEES

Observatoire de la sécurité des flux et des matières énergétiques

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Actualités énergétiques régionales

Afrique du Nord – Moyen Orient

Iraqi Ministers signed US$8bn worth of energy agreements with US firms

Date: 24/08/2020

Emerging markets, Middle-East, Iraq, Policy, Companies, Investments, Market, Power plants, Power grids

During the bilateral energy ministerial meeting with the US Secretary of Energy and the Iraqi Ministers, the Iraqi Ministers of Oil and Electricity and five separate US firms, including Honeywell, Baker Hughes, GE, Stellar, and Chevron, signed US$8bn worth of energy agreements. Honeywell and the Ministry of Oil agreed to advance the development of the Ar Ratawi gas project, which will further enable Iraq to capture, process, and utilize indigenous gas resources to meet domestic energy demand. Meanwhile, Stellar Energy and the Ministry of Electricity concluded a front-end engineering and design agreement that will help advance the deployment of turbine inlet air chilling technology on more than 30 turbines, which will increase power sector efficiency by as much as 30%. Baker Hughes and the Ministry of Oil agreed to further collaborate on flare gas-to-power opportunities and the deployment of US oil field services and equipment. Chevron and the Iraqi Ministry of Oil outlined a framework for entering into exclusive negotiating on an exploration, development, and production contract in the Dhi Qar Province. GE and the Ministry of Electricity committed to three agreements that will help increase reliable access to electricity in Iraq, including efforts related to GE's existing generation maintenance program, the addition of combined cycle units at the Dhi Qar and Samawah power plants, and collaboration on strengthening Iraq's electricity grid and interconnection with neighbouring countries.

Source(s): US DoE press release

Shanghai Elec. selects supplier for Mohammed bin Rashid solar project (UAE)

Date: 21/08/2020

Emerging markets, Middle-East, United Arab Emirates, Electricity, Renewables, Solar, Projects

Shanghai Electric has selected the JinkoSolar to supply around 1 GW of solar modules for the Mohammed bin Rashid Solar Park in Dubai (United Arab Emirates). In addition to the contract, the two parties signed a strategic partnership agreement to strengthen cooperation in the field of renewables. In July 2020, ACWA Power signed an Engineering, Procurement and Construction (EPC) contract with Shanghai Electric for the 5th phase of the project. The project's power generation will be sold to the Dubai Electricity and Water Authority (DEWA) under a 25-year Power Purchase Agreement (PPA) signed in April 2020. The Mohammed bin Rashid Al Maktoum solar project combines PV and CSP with investments of up to AED 50bn (US$13.6bn). The project is expected to have a capacity of 5 GW by 2030. The 13 MW first phase became operational in 2013, using photovoltaic solar panels. The second phase (200 MW of solar PV) was commissioned in March 2017. The third phase of 800 MW is being commissioned in three stages: the first 200 MW stage was commissioned in 2018, the second 300 MW stage in 2019 and the third 300 MW stage is under construction and expected by-end 2020. The fourth phase will include 250 MW of solar PV, 600 MW from a parabolic basin complex, and 100 MW from a solar power tower.

Source(s): JinkoSolar press release

Saudi Arabia's Nuclear Program and China

Date: 18/08/2020

China, Saudi Arabia, Asia, Middle-East, BRICS, Emerging markets, Nuclear, Electricity, Policy

A facility for extracting uranium yellowcake from uranium ore is being built with the assistance of two Chinese companies in a remote desert location near the northwest Saudi city of Ula, roughly midway between Medina and Tabuk, according to Western officials. The Saudi Energy Ministry has denied that the yellowcake uranium harvesting facility is under construction. Saudi Arabia plans to construct 16 nuclear power reactors within 25 years. Nevertheless, the country intends to become proficient in every facet of the nuclear fuel cycle, a huge opportunity for Chinese companies.

Source(s): Middle East Institute

The Prospects of a China-Iran Axis

Date: 10/08/2020

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

A draft of a partnership agreement between Beijing and Tehran outlines a framework for increased Chinese investment in Iran, strategic cooperation, and Iran's integration in China's Belt and Road Initiative, including joint energy and infrastructure projects valued at around US$400bn.

Source(s): War on the Rocks

Arctique

The US will authorise oil drilling in the Arctic National Wildlife Refuge

Date: 20/08/2020

G8, America, United States, Oil, Policy

The US authorities plan to authorise drilling in the Arctic National Wildlife Refuge (Alaska), with the objective to auction off oil and gas exploration rights. The first auction could be held on 22 December 2021. The plan includes the construction of four airstrips and major well pads, 280 km of roads, vertical supports for pipelines, a seawater treatment plant, a barge landing and storage site. According to the Bureau of Land Management (BLM), it would not pose an undue threat to the wildlife that depends on the refuge for survival. In 2019, the US crude oil production reached 17.1 mb/d, with Alaska accounting for less than 4% of the total. Earlier in August 2020, the Bureau of Land Management has published a final environmental statement for ConocoPhillips's Willow oil project in the National Petroleum Reserve in Alaska (US). The plan allows for up to five drill sites and associated processing and support facilities, including gravel roads and pipelines to provide access to federal leases and allow for responsible oil and gas development and operations. The project could produce 160 kb/d (with a processing capacity of 200 kb/d) over the next 30 years.

Source(s): The Washington Post, Bureau of Land Management press release, Bureau of Land Management press release II, Reuters

Novatek launches gas production at the North-Russkiy Cluster (Russia)

Date: 06/08/2020

BRICS, G8, Emerging markets, CIS, Russia, Natural Gas, Companies, Supply, Production, Novatek

Russian independent gas producer Novatek, through its subsidiary Novatek-Tarkosaleneftegas, a wholly owned subsidiary, has launched production from gas condensate bearing layers of the North-Russkoye and East-Tazovskoye fields with a capacity of 7.7 bcm/year of natural gas and 1 Mt/year of gas condensate. In December 2019, Novatek-Yurkharovneftegas, a subsidiary of Novatek, was awarded two 25-year oil and gas licences to explore and produce hydrocarbons in two areas in the Yamal-Nenets region in northern Russia. The first license, which comprises the South-Yamburgskiy subsoil area located in the Nadym District, has estimated resources of 506 bcm of natural gas and 126 Mt of liquids (4.3 Gboe). The second permit, which covers the East-Ladertoyskiy subsoil area

located on the Gydan Peninsula, has estimated resources of 184 bcm of natural gas and 32 Mt of liquids (1.5 Gboe).

Source(s): Novatek press release

Report to Congress on Changes in the Arctic

Date: 06/08/2020

United States, America, G8, Oil, Policy

Changes to the Arctic brought about by warming temperatures will likely allow more exploration for oil, gas, and minerals. Although there continues to be significant international cooperation on Arctic issues, the Arctic is increasingly viewed as an arena for geopolitical competition among the United States, Russia, and China.

Source(s): USNI

Méditerranée Orientale

Turkey-Greece conflict in eastern Mediterranean is less about gas than vaccuum left by Trump

Date: 18/08/2020

Greece, Turkey, Europe, Europe, Emerging markets, Natural Gas, Policy

The United States, traditionally the guarantor of peace between Greece and Turkey, has been almost totally silent on the worsening stand-off in the eastern Mediterranean. There is a sense that all parties want to take advantage of this, onshore and offshore, before the US elections. Gas exploration and production, especially on a seabed, requires hefty upfront investment – never mind the geopolitical cost.

Source(s): The Conversation

Chevron and the Centrality of Energy Diplomacy in the Middle East

Date: 12/08/2020

Israel, Middle-East, Natural Gas, Acquisition/sale

In July 2020, Chevron announced that it was acquiring the shares of Noble Energy in Israeli gas in the Eastern Mediterranean. Until now, the largest of the multinational oil companies refrained from investing in Israeli oil and gas. Chevron's recent move represents a potential turning point in US energy diplomacy in the region.

Source(s): Jerusalem Center for Public Affairs

Liquefied Natural Gas: A Game Changer for Turkey?

Date: 31/07/2020

Turkey, Europe, Emerging markets, LNG, Natural Gas, Policy

Gazprom used to supply more than half of the gas entering Turkey. However, its share decreased from 52% (28.69 bcm) in 2017 to 47% in 2018 (23.64 bcm), to just 33% (15.9 bcm) in 2019. Turkish industries and households rely less and less on Russian gas, and this turn is linked to record-low prices and investment in import and storage infrastructure in recent years. It will give Turkey more leverage in negotiations with Russia, as the long-term contract between Gazprom, BOTAŞ and four private companies are up for renewal at the close of 2021.

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Source(s): Middle East Institute

Europe

UK nuclear power: The next Huawei?

Date: 21/08/2020

United Kingdom, Europe, G8, Nuclear, Electricity, Projects, Power plants

The United Kingdom's relations with China have deteriorated badly, in a context where nuclear project aces rising costs, cheaper renewables and domestic opposition. The government could take a decision on the Sizewell and Hinkley nuclear projects by end-2020.

Source(s): DW

Czech Republic will not sign an agreement with the United States on the development of nuclear energy

Date: 12/08/2020

Czech Republic, Europe, Nuclear, Electricity, Projects, Power plants

The Czech Republic will not sign an agreement with America on the development of nuclear energy. The government does not want to create favourable conditions for Westinghouse in the upcoming tender for the construction of a new power unit at the Dukovany nuclear project.

Source(s): TASS (Russian)

The Baltic States and the Belarusian Nuclear Power Plant in Astravyets

Date: 18/08/2020

Estonia, Latvia, Lithuania, Belarus, Europe, Europe, Europe, CIS, Nuclear, Electricity, Policy

Lithuania is trying to block Belarus' plans to sell electricity from the Rosatom-built nuclear power plants in Astravyets, which will have a total capacity of 2.4 GW and is expected to be fully operational in 2021. Lithuania has so far failed to convince Latvia and Estonia to sign a joint declaration that they would not buy energy from Astravyets. Latvia and Estonia recognise the security problems with the plant, but also ndicate the importance of economic factors.

Source(s): PISM

Asie

Sibur may tap Russian wealth fund to build Amur gas complex

Date: 04/08/2020

Russia, CIS, BRICS, G8, Emerging markets, Natural Gas, Projects

Russia's National Wealth Fund could help finance Sibur's Amur gas complex in Siberia, which is expected to be completed by 2024. China's Sinopec is set to take a 40% stake in the complex.

Source(s): Reuters

PipeChina starts building southern part of China-Russia East gas pipeline

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Date: 29/07/2020

BRICS, Emerging markets, Asia, China, Natural Gas, Projects, Gas pipeline, Transmission (gas)

China Oil and Gas Piping Network Corporation (PipeChina) has started building the southern portion of the 5,111-km China-Russia East natural gas pipeline, as a Chinese extension of the Power of Siberia gas transmission project delivering Russian gas to China. The southern portion begins at Yongqing in the northern province of Hebei and ends at Shanghai in eastern China. The China-Russia natural gas pipeline, which will have a capacity of 18.9 bcm/year, is expected to be launched in 2025. In July 2019, China began to build a 1,110 km gas pipeline section to the project between Changling and Yongqing (in the Hebei province), which is expected to be completed in October 2020. In December 2019, Russia officially started to supply gas to China through the 3,000 km-long Power of Siberia gas pipeline project. As agreed in 2014, Russia will deliver 38 bcm/year of gas to China over a 30-year period using the Power of Siberia pipeline. Gazprom will deliver gas from the Chayandinskoye field in Yakutia (and from the Kovyktinskoye field located in the Irkutsk region as of early 2023) to Blagoveshchensk, at the Russian border with China, and to Changling in the Jilin province of China. In May 2020, Gazprom initiated a feasibility study for its new gas pipeline project in Eastern Siberia, the 50 bcm/year Power of Siberia 2 gas pipeline project, which will connect Russia to western China via Mongolia.

Source(s): Reuters

Chinese companies were awarded two thermal power projects overseas

Date: 27/08/2020

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

According to the Chinese press, Chinese companies have been awarded two thermal power projects overseas. China's Desheng company will undertake technical consulting services for the 300 MW Gwadar coal-fired power plant project in Pakistan. The project is being developed by China Power Engineering Consulting Group. The plant is located in Gwadar Port in southwestern Pakistan and an expansion project seeks to make the power plant reach 2.1 GW in capacity. Meanwhile, the China Construction Third Engineering Bureau will build the 1,320 MW (2x66 0MW) Tanjun A USC coal-fired power plant project in Indonesia. The project will be developed in partnership with Harbin Electric. The project is located in Pange-nan District, Cirebon City, West Java, and is jointly invested by Malaysia YTL Group and Indonesian Bakrie Company.

Source(s): BHI (Chinese)

Afrique

MCC Signs Compact with Burkina Faso to Improve Energy Sector, Reduce Poverty

Date: 13/08/2020

Burkina Faso, Africa, Electricity, Policy, Power plants

through strengthening regulations and institutions, improving energy infrastructure, increasing generation capacity, and source diversification. This will include improved access to electricity for citizens in Burkina Faso’s two largest cities—Ouagadougou and Bobo-Dioulasso.

Source(s): MCC press release

China’s belt and road initiative: Implications in Africa

Date: 24/08/2020

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Africa, Electricity, Policy, Power plants

African governments have recently announced the cancellation or postponement of major Chinese projects. The Niger government is revising a contract against State-owned China National Petroleum Corporation (CNPC). The Chad government shut down operations of CNPC in mid-August 2018. The Gabon government has withdrawn the permit for a significant oil field from Addax, a subsidiary of China-owned Sinopec, and has further threatened to cancel permits to other fields.

Source(s): ORF

Autres

Brazil to choose Angra three nuclear partner by year-end: minister

Date: 22/08/2020

BRICS, Emerging markets, America, Brazil, Electricity, Nuclear, Projects, Power plants

Brazil plans to select its partner to fund the construction of the Angra 3 nuclear project by end-2020. According to the government, Chinese banks and the BRICS Development Bank are possible alternatives.

Source(s): Reuters

Argentina ponders BRI endorsement amid tricky debt restructuring

Date: 14/08/2020

Argentina, America, Emerging markets, Electricity, Policy, Power plants

Argentina could become the biggest economy in Latin America to join the Belt and Road Initiative (BRI). The government intends to revitalise the relationship and reactivate the controversial Chinese-backed dams in Santa Cruz province, as well as nuclear power plants. However, Argentina needs first to restructure its external debt with private bondholders, mostly US-based, and renegotiate its US$44bn debt with the International Monetary Fund (IMF), where the United States has a hugely influential role.

Source(s): Diálogo Chino

Russia in Latin America: repercussions for Spain

Date: 27/08/2020

Russia, America, CIS, BRICS, G8, Emerging markets, Oil, Policy

Russia has made arms sales and trade agreements –especially in the energy sector– the main entry points in its return to the region. Growing Russian control over Venezuelan crude oil boosts its position in American energy markets. Rosneft resells around 225,000 bbl/d of Venezuelan oil per day, around 13% of the country's total exports.

Source(s): Fundación Real Instituto Elcano

Stratégies d'entreprises

Stratégies

Strangers to strategic partners: Thirty years of Sino-Saudi relations

Date: 27/08/2020

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

Saudi Arabia and China have naturally used energy as a foundation of their economic relationship. It provides a unique level of complementarity, with China the world's largest oil importer since 2013 and Saudi Arabia the world's swing producer. The energy relationship has expanded in recent years, moving beyond a simple buyer-seller relationship.

Source(s): Atlantic Council

China grows its share of the Latin American electricity market

Date: 03/08/2020

America, China, Asia, BRICS, Emerging markets, Electricity, Companies

Electricity transmission and distribution in Latin America has been revolutionised by the arrival of Chinese state-owned conglomerates State Grid and Three Gorges in Chile and Peru and by their ongoing expansion in Brazil. In Brazil, State Grid has acquired various companies, mostly Spanish, since 2010, and won tenders for transmission lines totalling 15,761 km by the end of 2019. Those investments secured State Grid's control of 10% of the Brazil's high voltage networks and 14% of distribution overall.

Source(s): Diálogo Chino

US 'follows China's path' in Africa by funding Mozambique liquefied natural gas project

Date: 02/08/2020

Mozambique, Africa, Emerging markets, LNG, Natural Gas, Projects, LNG liquefaction, LNG facilities

The Export-Import Bank of the United States (Exim) has approved a US$4.7 billion loan, the largest direct loan in the bank's history in Sub-Saharan Africa, to support exports of US goods and services to construct an LNG facility on Mozambique's Afungi peninsula. The US upstaged the Chinese and Russian governments, which were also interested in funding the project

Source(s): SCMP

The Sorry Sight of Rosatom's Uranium Tailings

Date: 20/08/2020

Russia, CIS, BRICS, G8, Emerging markets, Uranium, Nuclear, Electricity, Supply, Companies, Rosatom

Rosatom offers favourable conditions to foreign buyers: construction of nuclear power plants on credit; personnel training; supply of nuclear fuel and its subsequent utilisation. As the company will need a lot of uranium in the next few years, and its reserves are quite poor in Russia itself, Rosatom company's growing appetite seems to have been met with nuclear waste processing technology.

Source(s): Riddle

Investissements et acquisitions

Prumo sells 33% of US$5bn GNA gas complex (Brazil) to SPIC

Date: 13/08/2020

BRICS, Emerging markets, America, Brazil, Electricity, Thermal, Gas-fired power gen., Companies, Projects, Investments, Power plants, LNG facilities, LNG regasification

Prumo, a private Brazilian company controlled by EIG Global Energy Partners, BP and Siemens, has signed a binding agreement with SPIC Brasil to sell 33% of the 3 GW GNA I and GNA II LNG-to-power projects in Port of Açu, Rio de Janeiro (Brazil). SPIC, which is an affiliate of China state-owned company China Three Gorges, has also agreed to participate in future expansion projects GNA III and GNA IV as part of overall 6.4 GW power and domestic gas hub strategy at Port of Açu. The closing of the agreement, scheduled for the fourth quarter of 2020, is subject to the fulfilment of certain conditions precedent usual to this type of transaction, among others. The GNA gas complex includes, beyond the mentioned gas-fired power plants, an LNG terminal with a total capacity of 21 mcm/d (7.7 bcm/year). GNA I, which has an installed capacity of 1.3 GW, is expected to start operations in the first half of 2021. The estimated total planned investment in the GNA gas and power complex is approximately US$5bn.

Source(s): EIG Global Energy Partners press release

China Three Gorges buys a 500 MW solar portfolio in Spain

Date: 21/08/2020

Europe, Spain, Electricity, Renewables, Solar, Companies, Acquisition/sale, Power plants, China Three Gorges Power (CTGPC)

The Chinese state-owned power company China Three Gorges (CTG) has reached an agreement with Madrid-based renewables firm X-Elio to acquire a portfolio of 13 solar plants in Spain, with a combined capacity of 500 MW. The solar plants, which are located in Andalusia, Extremadura, Castilla La Mancha, Murcia and Castilla y León, were built in 2019-2020 and are fully operational. The transaction is subject to regulatory approvals, including a foreign investment authorisation, and is expected to close by end-2020. In December 2011, CTG won the tender to acquire a 21% stake in Portuguese electric utility EDP. In May 2018, the company proposed a takeover of EDP, which was ultimately rejected.

Source(s): El Economista (Spanish), Reuters

Chinese Oil Giant CNPC Eyes BP's $1.5 Billion Stake in Oman Gas Field

Date: 30/07/2020

Oman, Middle-East, Emerging markets, Oil, Acquisition/sale, Companies, BP, CNPC / PetroChina

China National Petroleum Corporation has entered talks with BP for a 10% stake in the Khazzan natural gas field. The minority stake could fetch about US$1.5bn.

Source(s): Bloomberg

Harbin Electric delivered multiple coal projects

Date: 04/08/2020

BRICS, Emerging markets, Asia, Vietnam, Middle-East, United Arab Emirates, Electricity, Thermal, Coal-fired power gen., Companies, Supply, Capacities, Projects, Power plants

Harbin recently delivered several thermal power plants. Harbin completed the 168-hour trial operation of Unit 2 of the 1,200 MW (2×600MW) Haiyang coal-fired power plant project by the National Energy Baoqing Coal and Electricity Company in Vietnam. The first unit of the plant was delivered on 16 January 2020. The project is part of the One Belt One Road initiative and is located on the Jingshi River in Hai Duong Province. It operates in the BOT mode and has strong regional cooperation significance for China, Malaysia and Vietnam. Harbin also delivered Unit 1 of the 2,400

MW (4×600MW) Dubai Hassyan ultra-supercritical dual-fuel coal and gas-fired power plant project in the United Arab Emirates (UAE). the project is also part of the One Belt One Road initiative.

Source(s): Harbin press release I (in Chinese), Harbin press release II (in Chinese), Harbin press release III (in Chinese), Harbin press release IV, SASAC press release

Juridique et institutionnel

Russie : les patrons de l'énergie face aux sanctions occidentales

Date: 27/07/2020

Russia, CIS, BRICS, G8, Emerging markets, Oil, Policy

Les sanctions occidentales contre les dirigeants du secteur de l'énergie russe, mise en place il y a six ans, n'ont pas su créer de fractures significatives entre eux et le pouvoir russe. Au contraire, l'État russe a encore renforcé son emprise sur le secteur de l'énergie, n prenant des dispositions fiscales et monétaires, en encourageant la production de technologies de pointe en Russie et en engageant une diplomatie dédiée à amortir le choc des sanctions.

Source(s): IFRI

Trump Administration Weighs Tighter Venezuelan Oil Sanctions

Date: 19/08/2020

United States, Venezuela, America, America, G8, Emerging markets, Oil, Policy

The Trump administration is considering additional sanctions on Venezuela aimed at halting the remaining fuel transactions permitted with the South American nation. Earlier in August 2020, the US seized the contents of four Iranian tankers carrying more than 1.1 mbl of gasoline to the country

Source(s): Bloomberg

Uniper may be forced to write down NordStream 2 loan if project fails

Date: 14/08/2020

Europe, Natural Gas, Companies, Projects, Gas pipeline, Uniper

German utility Uniper may be forced to impair a loan provided to the 55 bcm/year Nord Stream 2 gas pipeline if the project fails due to US sanctions. Uniper committed to cover up to €950m of the project costs. Those investments are not subject to the current US sanctions. A consortium associating Gazprom (50%), Uniper, Shell, OMV, Wintershall, and Engie (10% each) is building the 1,230 km-long Nord Stream 2 gas pipeline. The project, which will double the throughput of the current Nord Stream pipeline, is causing controversy as Germany would increase its dependence on Russian gas while bypassing Ukraine. In December 2019, the United States imposed sanctions on companies working on the project. In June 2020, US senators announced a bill to expand the sanctions on firms engaged in the gas pipeline project. The new bill, if approved, will expand the sanctions to include penalties on firms not only involved in the pipe-laying but also those which provide the project underwriting services, insurance, and services or facilities for the vessels (welding equipment, retrofitting or tethering of the ships). In January 2020, Russia postponed the commissioning of Nord Stream 2 from mid-2020 to the end of 2020 or early 2021, due to US sanctions against the gas pipeline that could delay the projects by several months.

Source(s): Reuters, S&P Global

Gazprom signs deal with Mongolia to start works on Power of Siberia 2 gas pipeline

Date: 26/08/2020

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

Gazprom has signed a memorandum of intent with the government of Mongolia to create a joint venture, which would be tasked with the development of feasibility studies for the 50 bcm/year Power of Siberia 2 gas pipeline connecting Russia to western China via Mongolia. In May 2020, Gazprom started a feasibility study for the project. In December 2019, Russia officially started to supply gas to China through the 3,000 km-long Power of Siberia gas pipeline project. As agreed in 2014, Russia delivers 38 bcm/year of gas to China over a 30-year period using the Power of Siberia pipeline. Gazprom supplies gas from the Chayandinskoye field in Yakutia (and from the Kovyktinskoye field located in the Irkutsk region as of early 2023) to Blagoveshchensk, at the Russian border with China, and to Changling in the Jilin province of China. In July 2019, China began to build a 1,110 km gas pipeline section to the project between Changling and Yongqing (in the Hebei province). The extension will be completed in October 2020. In 2019, Gazprom produced 500 bcm of gas and exported 199 bcm (down from 202 bcm in 2018).

Source(s): Gazprom press release (Russian), TASS (Russian)

Autres

China only fulfils 5% of Sino-U.S. energy trade deal in first half of 2020

Date: 04/08/2020

China, Asia, BRICS, Emerging markets, Oil, Policy

China bought only 5% of the targeted US$25.3 billion in energy products from the United States in the first half of 2020, falling well short of its trade deal commitments at a time when relations between the two top economies are already sour.

Source(s): Reuters

A single consortium is formed to develop the Inga III hydro project (Congo DR)

Date: 19/08/2020

Africa, Congo DR, Electricity, Renewables, Hydro, Large-hydro, Companies, Power plants

Six Chinese companies led by China Three Gorges Corporation and Spain-based AEE Power have agreed to form a single consortium to develop the Inga III hydro project in the Democratic Republic of the Congo (Congo DR). The six Chinese companies have a 75% stake in the new consortium, while AEE Power retains a 25% share. The formation of a single entity between the Spanish consortium, which includes AEE Power and ACS, and the China Three Gorges Corporation-led consortium, was requested by the Congolese government. In January 2020, ACS withdrew from the Inga III hydropower project. The Congolese government and the African Development Bank (AfDB) agreed on a 4.8 GW project, which could be later expanded to 7.5 GW, and eventually to 11 GW. The project would cost US$12bn. Of the 4.8 GW capacity, 2.5 GW would be directed for South Africa, 1.3 GW for mining companies in Congo DR, and 1 GW for the national network. This proposal has been rejected by the Chinese companies, which intends to develop an 11 GW dam, at an estimated cost of US$14bn.

Source(s): Afrik21, Bloomberg

Innovations technologiques

Energies renouvelables et biocarburants

Interior and Norway Strengthen Offshore Energy and Mineral Resource Knowledge and Experience

Date: 18/08/2020

Norway, United States, Europe, America, G8, Offshore, Wind, Renewables, Electricity, Policy

The US Department of the Interior has formalised its partnership with the Ministry of Petroleum and Energy of the Kingdom of Norway to strengthen cooperation in offshore mineral, oil and gas, and wind energy activities. Activities outlined in the memorandum of understanding framework include the exchange of scientific and technical information, and cooperation regarding research and development technologies.

Source(s): US Department of the Interior press release

AES Gener plans to develop an 863 MW hybrid project in Chile

Date: 17/08/2020

Emerging markets, America, Chile, Electricity, Renewables, Solar, PV, Wind, Onshore, Companies, Power plants, Electricity storage

AES Gener has submitted an application to the Chilean Environmental Assessment System (SEA) to develop an 863 MW hybrid project in the Taltal district, in the Antofagasta region of Chile. The project would consist of a 350 MW wind park made up of 50 wind turbines rated 7 MW each, and a 513 MW solar PV park and two lithium-based battery energy storage systems. The company would invest US$750m in the Parque Terra Energia Renovable project, whose construction would start in 2022. In April 2020, AES Gener's shareholders (including the US AES Corporation with a 66% stake) approved a US$500m capital increase in the company to help AES Gener invest US$1.8bn to develop 1,600 MW of wind and solar power projects in Chile and Colombia.

Source(s): reNews, AES Gener press release (Spanish)

Botswana and Namibia seek an agreement for 5 GW of solar

Date: 26/08/2020

Africa, Botswana, Namibia, Electricity, Renewables, Solar, PV, Policy, Supply, Capacities, Projects, Power plants

Botswana and Namibia, in partnership with US government initiative Power Africa, are trying to set an agreement to develop 5 GW of solar. The agreement would be signed between the Namibian Ministry of Mines and Energy and its counterpart in Botswana. This agreement would open the way for feasibility studies to determine the technical features of the projects.

Source(s): Engineering News

DOE Awards $20 Million for Research on Rare Earth Elements

Date: 27/08/2020

United States, America, G8, Renewables, Electricity, Policy

The US Department of Energy (DOE) has awarded U$20 million for basic research aimed at ensuring a stable US supply of rare earth elements. The research will focus on improving the efficiency of both the use of the elements and their extraction from geological and recycled sources. It will also seek to reduce the reliance on rare earth elements by discovering substitute materials with similar or even enhanced properties.

Source(s): US Department of Energy

Stockage d'électricité et batteries

Glencore, Huayou create body to 'professionalize' artisanal mining

Date: 24/08/2020

Africa, Congo DR, Electricity

Cobalt producers Huayou and Glencore have created a new body aiming to develop artisanal and small-scale miners in the Democratic Republic of the Congo (DRC). The objectives of the Fair Cobalt Alliance (FCA) include supporting the professionalization of site management and instilling best practice across the artisanal mining sector to develop health and safety, and minimize the environmental harm caused by producing cobalt.

Source(s): Fastmarkets

Green Li-ion seeks to launch GLMC-1 battery recycling technology (Singapore)

Date: 18/08/2020

Asia, Singapore, Technology, Electricity storage

Green Li-ion, a Singapore-based start-up, has developed and patented the GLMC-1 battery recycling technology. Green Li-ion's Multi-Cathode processor and control unit GLMC-1 enhance current lithium-ion battery recycling lines to produce 99.9% pure cathodes. GLMC-1 increases efficiency by over 200% by having the ability to process all variations of a lithium-ion battery. The mechanical and chemical processing control system produces superior output with up to 4x profits for e-recyclers and lithium-ion battery recyclers. Green Li-ion intends to launch the technology in 2021 as a part of the Ministry of Environment and Water Resources' new extended producer responsibility (EPR) e-waste framework. The company is also seeking a partner who is willing to fund the prototype development (up to SGD 200,000 (US$145,807)) and become an early adopter of the technology. Preferably, the partner should have access to spent lithium-ion battery sources to support the trial.

Source(s): Green Li-ion website, Hydrogen Fuel News

Hydrogène

China has issued 37 new policies to advance the hydrogen agenda

Date: 21/08/2020

BRICS, Emerging markets, Asia, China, Hydrogen, Policy

A Chinese information agency has summarised the main national and provincial changes in hydrogen policymaking and strategies in the past months (China). According to the agency, 37 new policies were released for advancing the hydrogen energy agenda. The central government has introduced a reward-based scheme to push hydrogen demonstrations at the regional level. As a result, some regional governments have introduced new hydrogen policies, triggered by the promise of national funding. Although the policies focus mostly on fostering fuel cell vehicle (FCV) and the fuel-cell supply chain, new measures also include renewable-to-gas, energy storage, and hydrogen-to-chemicals. The agency estimates that 15 provinces have announced policies with hydrogen-supporting scopes as of August 2020. From these 15 provinces, Shandong, Hebei, Ningxia, Tianjin, Guangdong, and Henan have addressed hydrogen energy specifically. Shandong has published a mid-to-long-term plan (2023-2035) for hydrogen energy development that sets a goal to develop 200 refuelling stations and reach 50,000 FCVs by 2030. The province is also the first to launch a floating offshore wind based power-to-gas project which will have 5 GW of capacity. Hebei is reportedly the most promising Power-to-Gas market and accounts for 43 hydrogen-related projects. Wind power generation hubs such as Zhangjiakou are key to advance the government's wind-to-gas agenda. Meanwhile, Ningxia, a strong coal and coal-to-chemical producing region has slated a plan to combine

green hydrogen with the coal-to-chemical industry. Tianjin issued its short-term plan (2020-2022) for hydrogen development which foresees to build up 2 stationary fuel-cell based CHP plants, 10 refueling stations, 3 FCV application demo zones, and 3 FCV bus lines by 2022. Furthermore, Guangdong is currently evaluating a draft strategy for hydrogen until 2025 and is seeking to promote the concept of Pan Canton-Macau-Hong Kong Hydrogen Demonstrative Region to integrate itself with China's two special administrative regions. The province already has a target to develop 90 refueling stations by 2025. Henan is the latest province to have announced a provincial-level fuel cell development plan. The province seeks to to have 5000 FCVs, and 80 refueling stations by 2025. Further policies can be expected from China's upcoming "New Infrastructure" policy and "Internal Circulation" national strategy.

Source(s): Energy Iceberg

Is China's Hydrogen Economy Coming?

Date: 28/07/2020

China, Asia, BRICS, Emerging markets, Hydrogen, Policy

From a geopolitical perspective, renewable hydrogen could become a key part of the Belt and Road Initiative, symbolizing China's technological prowess while increasing export opportunities and potentially enhancing Beijing's status as a leader in the global fight against climate change.

Source(s): Belfer Center for Science and International Affairs

Véhicules électriques

Electric cars to account for 79% of lithium demand by 2030: Chile

Date: 25/08/2020

Chile, Electricity, Technology

The electric car industry will dominate demand for lithium over the next ten years, accounting for more than three quarters of the ultralight battery metal's consumption by 2030, up from one third in 2019. According to the Chilean state mining agency Cochilco, demand for lithium for electric vehicles is expected to reach 1.4 Mt by 2030.

Source(s): Reuters

Nucléaire

Moltex selects Jacobs to help develop its Stable Salt Reactor (US)

Date: 11/08/2020

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

Moltex Energy (US) has selected Jacobs to support their development of a new type of nuclear power plant, the Stable Salt Reactor. Jacobs will build a bespoke experimental facility for thermal transfer testing at its Birchwood Park research and development facility in the UK. Moltex Energy's Stable Salt Reactor is designed to generate low-cost electricity by burning processed spent fuel pellets, which would otherwise have to be stored as radioactive waste. Moltex has been awarded more than US$6m in funding from US DOE's Advanced Research Projects Agency-Energy, to help develop the reactor, which is cooled using molten salt. To assist with the validation of thermal transfer modelling, Jacobs' chemistry, materials, engineering, instrumentation and modeling teams will collaborate to create a simulation to replicate the heat output of a fuel channel and to validate computational fluid dynamics modelling of the thermal transfer across the fuel assemblies into the coolant. Moltex

already uses Jacobs' ANSWERS® software for radiation transport modelling and simulation of reactor performance.

Source(s): Jacobs press release

ENEC achieves start-up of Unit 1 of Barakah nuclear power project (UAE)

Date: 04/08/2020

Emerging markets, Middle-East, United Arab Emirates, Electricity, Nuclear, Companies, Projects, Power plants, Korea Electric Power Corp. (Kepco)

Nawah Energy has successfully started up the first unit of the Barakah nuclear power plant, located in the Al Dhafrah Region of Abu Dhabi, United Arab Emirates (UAE). The joint venture between Emirates Nuclear Energy Corporation (ENEC) and Korea Electric Power Corporation (Kepco) received the Operating License from the Federal Authority for Nuclear Regulations (FANR) in February 2020 and completed fuel assembly loading in March 2020. In July 2020, Nawah Energy completed the construction of the second unit of the Barakah nuclear power plant and will now seek to secure an operating licence from the FANR. Kepco's subsidiary Korea Hydro and Nuclear Power (KHNP) started to build the project in 2013. The Barakah nuclear power plant consists of four 1,400 MW APR1400 units, which should all be operational by the end of 2020. The construction of the power plant is now 94% complete. Once operational, the power plant will cover almost 25% of the domestic electricity needs.

Source(s): ENEC press release

Hitachi seeks to relaunch its Wylfa Newydd nuclear project (UK)

Date: 18/08/2020

G8, Europe, United Kingdom, Electricity, Nuclear, Projects, Power plants

Hitachi, through its subsidiary Horizon Nuclear Power, is seeking to revive its Wylfa Newydd nuclear power plant project on the island of Anglesey, in North Wales (United Kingdom). The Japanese conglomerate is awaiting the UK's new energy strategy, which is expected to include a new financing scheme power for nuclear power, which makes consumers bear part of the costs of investments with a contribution that would be added to their electricity bills. In January 2019, Hitachi scrapped the project for economic reasons. The company has been unable to reach a financing agreement with the UK government. The project would have comprised two Advanced Boiling Water Reactors (ABWRs) with a combined capacity of 2,760 MWe on the site of the former 980 MWe Wylfa nuclear power plant.

Source(s): The Japan Times, AFP (French)

Transports

Department of Energy Announces $33 Million in Funding for Carbon Neutral Hybrid Electric Aviation

Date: 27/08/2020

United States, Transport

The US Department of Energy has awarded US$33m in funding for 17 projects as part of the Advanced Research Projects Agency-Energy's (ARPA-E) Aviation-class Synergistically Cooled Electric-motors with iNtegrated Drives (ASCEND) and Range Extenders for Electric Aviation with Low Carbon and High Efficiency (REEACH) programs. ASCEND projects work to develop innovative, lightweight, and ultra-efficient all-electric powertrain with advanced thermal management systems that help enable efficient net-zero carbon emissions for single-aisle passenger commercial aircraft.

Source(s): US Department of Energy

CCS

Researchers discover new compound to improve CCS technology

Date: 30/07/2020

G8, America, United States, Technology, CCS

Researchers of the Berkeley and Lawrence Berkeley National Laboratory (US), in partnership with ExxonMobil, and the University of California have discovered a new material that could capture more than 90% of CO2 emitted from industrial sources. The material is composed of Zn, N, O, C, and H atoms constituting a highly porous tetraamine-functionalized metal–organic framework (MOFs)* capable of soaking up vast quantities of a specific gas molecule, such as CO2. Foreseen applications include the use of the compound in capture and storage technology for gas-fired power plants. MOFs are a class of compounds consisting of metal ions or clusters coordinated to organic ligands to form one to three-dimensional structures. They are a subclass of coordination polymers, with the special feature that they are often porous.

Source(s): Berkeley National Laboratory press release, Berkeley National Laboratory study

Autres technologies

The US-Israel Energy Center Announces Funding Opportunity for Energy Infrastructure Cybersecurity Cooperation

Date: 27/08/2020

United States, America, G8, Electricity, Policy

The U.S. Department of Energy (DOE), the Israel Ministry of Energy, and the Israel Innovation Authority have announced a new Call for Proposals from the US-Israel Center of Excellence in Energy, Engineering and Water Technology (US-Israel Energy Center) for cooperation in cybersecurity. The aim of this Call for Proposals is to develop tools and technology for energy cyber and cyber-physical security for critical infrastructure. The goal of the Energy Center is to promote energy security and economic development through the research and development of innovative energy technologies, while facilitating cooperation among consortia of U.S. and Israeli companies, research institutes, and universities.

Source(s): US Department of Energy