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FEATURED Q&A

Is Chile On Track to Become Carbon Neutral By 2050?



The coal-fired Bocamina plant in Chile, pictured above, is set to close completely by 2022, 18 years ahead of schedule. // File Photo: Chilean Government

Q Chile's energy commission in July approved Enel Generación Chile's plan to disconnect the second unit of the Bocamina coal-fired plant in May 2022, 18 years earlier than originally planned. The company is also set to take the first unit of the plant offline this year. Meanwhile, plans are underway for the construction of Chile's first hybrid industrial plant, which will include both a solar power plant and a wind farm. How meaningful are these recent announcements in the context of Chile's overall energy matrix and its goals to use more renewable energy sources? What is the status of Chile's renewable sector today, and how has it changed over the past 10 years? To what extent has the global economic crisis affected progress in the country's energy transition, and is Chile on track to become carbon-neutral by 2050, as it has pledged?

A Andrés Rebolledo, dean of the business department of USEK Chile and former energy minister of Chile: "Chile continues to deepen its energy transition toward a more sustainable electricity generation matrix with a high participation of renewable energies, especially solar and wind. In the last five years, these sources have gone from representing 4 percent of the installed capacity in the country to 24 percent this year. This change has been the result of a profound regulatory reform that gave signals to markets and gave way to the growth of investment in these areas, as well as technological changes that have caused a significant drop in the cost of renewable technologies. Another important factor that has allowed the acceleration of the transition is the agreement reached between the previous government and the

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TOP NEWS

OIL & GAS

Brazil Oil Exports Surge in July

Brazil's exports of crude oil surged in July to more than twice the level from the same month last year. However, China's share of oil imports from Brazil declined 73 percent.

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RENEWABLES

BHP to Pay for Early End to Thermal Power Contract in Chile

The miner said it would pay \$840 million for an early termination of a contract signed with a coal-fired thermoelectric plant in Chile.

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OIL & GAS

Venezuela Begins Stalled Trial of Citgo Executives

A court in Venezuela has begun the trial of six executives of Houston-based Citgo who have been jailed in the Andean nation for nearly three years. The case began moving following a meeting between former New Mexico Gov. Bill Richardson and Venezuelan President Nicolás Maduro.

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Richardson // File Photo: U.S. Senate.

OIL AND GAS NEWS

Brazilian Crude Exports Surge in July Amid Strong Demand

Brazil's exports of crude oil surged in July to 8.19 million tons, or 1.12 million barrels per day, an increase from 5.55 million tons in June and more than twice the level from July 2019, Argus Media reported last Friday, citing preliminary data from Brazil's trade ministry. In July, as compared to June, European nations including Spain, Portugal, the Netherlands and the United States increased their shares of oil imports from Brazil, but China's share declined 73 percent. Despite the coronavirus pandemic, demand for Brazil's pre-salt crude oil is still strong, but Brazil's light sweet grades of oil also have appeal in other countries, executives of Brazilian state-run oil company Petrobras said recently. In July, Brazil's Buzios pre-salt deposit produced a record 615,000 barrels per day, aided by purchases from independent Chinese refiners, Petrobras said last week. The Buzios field, which is located in the Santos Basin, is the world's largest deepwater oil field, Offshore Engineer reported Aug. 6. The field is producing oil using four floating production storage and offloading units. [Editor's note: See related [Q&A](#) in the July 31 issue of the Energy Advisor.]

Venezuelan Court Begins Stalled Trial of Citgo Executives

A court in Venezuela has begun the trial of six executives of Houston-based Citgo who have been jailed in the South American country for nearly three years, the Associated Press reported last Friday. The stalled case appears to be moving again, which defense attorney Jesús Loreto attributed to former New Mexico Gov. Bill Richardson's recent meeting in Caracas with Venezuelan President Nicolás Maduro. "We remain hopeful that things will

improve quickly," Loreto told the AP after the trial opened on Aug. 6. "Yesterday demonstrated a very clear interest in moving the process forward, and rapidly." Loreto said he recently was able to meet with his client, Tomeu Vadell, one of the jailed executives, whom he says is innocent. The executives traveled to Caracas in November 2017 when they received a call from PDVSA, Citgo's parent company, telling them they were needed at a budget meeting in Caracas. However, when they arrived, masked and armed security agents stormed into the conference room where they were gathered and arrested them on charges of embezzlement in connection with a proposal to refinance approximately \$4 billion in Citgo bonds by offering a stake of 50 percent in Citgo as collateral, the AP reported. The proposal was never executed, and Maduro accused the men of "treason." After Richardson's trip to Caracas, during which he unsuccessfully urged Maduro to free the executives, Maduro moved two of the men to house arrest, while the others remain in jail. The families of the "Citgo 6," as they are known, say the men have been held in inhumane conditions, have suffered severe weight loss and have been forced to share overcrowded basement cells, CNN reported last month.

Protesters, Police Clash Over Canadian Oil Firm in Peru

At least three Indigenous people from Peru's Amazon region were killed, and 17 other residents and police were injured, during a conflict with Canadian oil company PetroTal, Interior Minister Jorge Montoya said Sunday, Reuters reported. The Canadian firm announced it had halted operations at its production field in the Loreto region of northeastern Peru, where it usually extracts nearly 12,000 barrels of crude per day. The clash between local Kukama tribespeople and police began in the early hours of Sunday after about 70 residents with spears arrived outside PetroTal's facilities to demand a stop to production at Lot 95, Deutsche Welle reported. "We regret the events that

NEWS BRIEFS

BHP to Pay \$840 Million for Early End to Thermal Power Contract in Chile

Chilean copper mines Escondida and Spence, both of which are controlled by BHP, will jointly pay \$840 million for the early termination of a contract signed in 2008 with a coal-fired thermoelectric plant in the Andean nation, Reuters reported Saturday. BHP is among the mining companies in Chile that are shifting energy contracts to renewable sources in a bid to reduce its carbon footprint. The contracts were scheduled to end in 2026 at the Spence mine and 2029 at the Escondida mine, but they have now been modified to close in August 2021.

Mexican Energy Minister in Isolation After Contact With Covid-19 Patient

Mexican Energy Minister Rocío Nahle announced Aug. 7 that she will be self-isolating for 14 days and working from home following reports that she had been near a person infected with the novel coronavirus, Reuters reported. Nahle did not specify who that person was, saying on Twitter that "so far her clinical analysis has shown a negative result."

TPI Composites Strikes Two Supply Deals With GE Renewables in Mexico

U.S. wind blades maker TPI Composites has struck two supply deals with the renewable energy unit of General Electric, known as GE Renewable Energy, of which one is in the U.S. state of Iowa and one is located in Juárez, in Mexico, Renewables Now reported Aug. 7. "We will also be adding another production line in Mexico to provide for GE's wind turbine technologies in North America," said Bill Siwek, president and chief executive of TPI Composites. The first deal is effective through 2021, and it is subject to a one-year extension, while the second is valid through 2022.

occurred," Montoya told local television station Canal N, Reuters reported. "The initial figure we have is that there are three dead residents, in addition to 11 injured. On the police side, we have six injured," he added. PetroTal said in a statement that the "attempted takeover" of its unit was carried out by the same group of residents that recently invaded one of state-owned oil company Petroperú's pipeline stations, which had to stop pumping as a result, according to the report. Representatives of the protesters were not immediately available to comment on the events, Reuters reported. However, local Indigenous rights organization ORPIO said in a statement that local residents are demanding assistance from oil companies amid an outbreak of coronavirus cases in their Amazon communities.

Argentina's YPF Posts Record Quarterly Loss Amid Covid-19

Argentine state oil company YPF on Monday announced it had posted a net loss of 85 billion pesos (\$1.165 billion) in the second quarter, its worst quarterly loss on record, in part due to the coronavirus pandemic, Reuters reported. A nationwide quarantine and closed borders to prevent the spread of the virus hit domestic production and demand. "Gasoline sales fell by 85 percent in the last week of March and from that moment on they gradually rebounded, stabilizing in July with a fall of between 40 percent and 45 percent," YPF said in a statement. YPF also registered a record operating loss in the quarter of 93.4 billion pesos, Reuters reported.

PDVSA Updates Export Deals Due to U.S. Sanctions

Venezuelan state oil company PDVSA is offering export deals that include the delivery of its own oil, figuring in the costs to help customers who have been struggling to hire tankers to

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main generating companies and owners of coal-based assets to close these plants in the context of a programmed plan, whose terms were brought forward during the current government. This is a ratification that in Chile there is a consensus that the country's potential and greater competitiveness is in the use of its renewable sources, in which it has significant comparative advantages due to the quality of its solar and wind resources. The current challenge is innovating in renewable technologies that allow us to continue deepening this transition, lowering energy costs and ensuring the operation of the electric system. In this sense, it is interesting to see the development of innovations such as thermal generation solar plants (CSP), solar pumping plants, hybrid plants with different renewable technologies and those that include storage batteries."

A **Ricardo Raineri, former energy minister of Chile and former president of the International Association for Energy Econom-**

ics: "The disconnection of coal power plants is in line with the country's commitment to have 20 percent of electricity coming from nonconventional renewable energy, or NCRE, by 2025 (which Chile has already nearly met, ahead of schedule by five years), the plan to phase-out coal power plants by 2040, and the agreement signed in COP-25, with nine other Latin American and Caribbean countries, to reach an average of 70 percent of renewables in generation capacity by 2030. Chile has exceptional conditions for the deployment of NCRE, whose prices have fallen and are competitive, with modular and lower upfront investment costs, and with environmental and social licensing that is easier to obtain. However, the main challenge with NCRE is its variability, as it happens, for example, with solar and wind generation. But currently, technological progress has allowed us to cope with increasing volumes of variable electricity generation. The energy sector is the main carbon dioxide emitter

(78 percent), because of coal, gas and diesel for electricity generation (32 percent) and liquid fuels for transport (24 percent). But the country also has important sources for greenhouse gas (GHG) absorption, Land Use, Land Use Change and Forestry (LULUCF), which absorbs about 59 percent of the other sectors' GHG emissions. Thus, supporting NCRE and forestation, among others, the country is in an excellent position to become carbon neutral by 2050. Because of Covid-19 and citizenry confinement, normal operations have experienced delays everywhere, but in Chile, the appetite to invest in the sector has remained steady. This year, more than 200 NCRE projects submitted a request for an environmental license, and new projects expected to be connected during 2020 account for almost 20 percent of installed capacity, mostly wind (1,241 megawatts) and solar (2,182 megawatts)."

A **Rodrigo Andrade, regional director of Diálogo Energético Latinoamericano:** "The closure

of the Bocamina coal plant by Enel ahead of schedule is great news, both for the energy industry and for the environmental and climate movement. It responds to variables ranging from the increasing demands of energy industry investors for their global assets, as well as to the country context, in which citizen pressure, in the face of so-called environmental sacrifice zones, is increasing. In addition, there are favorable market factors for the renewable energy sector, which in Latin America has grown by 5 percent, even in the context of a pandemic, and the stimuli for economic recovery are strongly based on 'green' economies focused on clean energy, in a country that knew how to make a timely, competitive and well-oriented transition. This was especially so in the previous government, during which the foundations and auctions of projects that are being built today were laid. From the point of view of the energy matrix, NCREs have multiplied

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carry the country's oil due to U.S. sanctions, Reuters reported Aug. 7, citing internal PDVSA documents. The United States has been moving to blacklist vessel owners and shipping operators and has threatened to impose sanctions on any tanker facilitating the Andean nation's exports. It is a move that the Trump administration has been betting on for the past year and a half in a bid to squeeze government revenues and pressure President Nicolás Maduro to step down from power. Most shipping companies are avoiding Venezuela because of the sanctions, which has made it difficult and expensive to hire tankers to load crude in the South American country. The sanctions have in part contributed to a recent plunge in the country's oil exports to its lowest level in nearly 80 years, Reuters reported.

RENEWABLES NEWS

Brazil Willing to Drop Tariffs on U.S. Ethanol: Report

Brazilian government officials and agribusiness leaders are reportedly mulling over policies to avoid commercial retaliation from the administration of U.S. President Donald Trump if Brazil does not reduce import tariffs on U.S. ethanol, Folha de S.Paulo reported Tuesday. According to the report, the main strategy under discussion is to agree to drop ethanol tariffs in exchange for the United States removing duties from Brazilian sugar exports to the North American country.

POLITICAL NEWS

Former President of Mexico Accused in Odebrecht Scandal

The former CEO of Mexican state oil company Pemex, Emilio Lozoya, has told prosecutors

that former President Enrique Peña Nieto and his closest aide, Luis Videgaray, ordered him to distribute more than 500 million pesos (\$22 million) from Brazilian contractor Odebrecht to fund their successful 2012 election and bribe legislators, El Universal reported Tuesday. Attorney General Alejandro Gertz said a dossier of video evidence and witness testimony against Peña Nieto has been opened. Lozoya alleges that Peña Nieto and Videgaray directed

IN FOCUS

Preliminary Results Show Rowley Re-Elected in Trinidad and Tobago

By Anastasia Chacón González

The ruling People's National Movement, or PNM, won the popular vote in Trinidad and Tobago's 2020 general election held Monday, according to the preliminary results released by the Elections and Boundaries Commission (EBC) Wednesday, the Trinidad Express reported.

The PNM won a three-seat majority, losing one seat in Parliament. Election officials said the ruling party received just over 13,000 votes more than the United National Congress, its main rival.

Incumbent Prime Minister Keith Rowley declared victory on Monday, but the results were questioned over the past several days as UNC candidate and former Prime Minister Kamla Persad-Bissessar disputed several contests and claimed the voting process had been flawed.

Rowley said that the delays were intended to undermine his mandate and that not being able to swear in a new cabinet was hurting

the campaign promises his party had made. "What the UNC is doing is to disrupt the process. These are not accidental things. This is a deliberate strategy ... so as to prevent a smooth flow of the country's governance," Rowley said, Loop News reported Wednesday.

Endowed with deposits of oil and gas, the twin islands of Trinidad and Tobago have not fared well economically over the past decade, with GDP contracting seven out of the last 10 years due to lower energy prices, Reuters reported. Rowley also faced headwinds over unpopular economic migrants fleeing nearby Venezuela.

The PNM has said it will continue to seek to diversify the economy by boosting exports of energy services, digitizing services to improve the ease of conducting business and supporting the private sector, according to the report.

Rowley will serve a five-year term as prime minister.



Rowley // File Photo: Government of Trinidad and Tobago.

NEWS BRIEFS

Jamaican PM Announces General Elections Will Be Held on Sept. 3

Jamaican Prime Minister Andrew Holness on Tuesday called for a general election on Sept. 3, the Jamaica Gleaner reported. Holness' Jamaica Labor Party has been in office since February 2016, when the JLP registered a surprise one-seat win over the People's National Party in parliament. Holness, 48, hopes to stay in office for a second consecutive term, something the right-of-center JLP has not accomplished in more than half a century. The PNP is led by veteran politician Peter Phillips.

Brazil's Interest Rates Are Close to as Low as Possible, Minutes Show

Interest rates in Brazil are close to as low as possible without destabilizing financial markets, according to minutes from the central bank's policy meeting last week, Reuters reported Tuesday. The minutes suggest further reductions in Brazil's benchmark Selic rate will likely be gradual and spaced out. Policymakers cut interest rates last week by 25 basis points to a low of 2 percent, which the minutes said is unlikely to be raised over the next year or into 2022 unless inflation rises toward the central bank's targets.

Ecuador's Bucaram Arrested in Organized Crime Probe, Killing

Law enforcement authorities on Wednesday arrested former Ecuadorean President Abdalá Bucaram in an organized crime probe into the murder of an Israeli man jailed in a possible Covid-19 medical supplies scandal, the Associated Press reported. Bucaram, 68, has not been charged, and an attorney says he is innocent. "The Bucaram family hasn't been responsible for a single death in this country," Héctor Gabriel Vanegas said.

ter. Last year, a witness testifying at a U.S. trial of Mexican drug kingpin Joaquín "El Chapo" Guzmán said Peña Nieto had accepted a \$100 million bribe.

Bolivia Senate Drafts Measure to Ensure Oct. 18 Election Date

Bolivia's Senate on Wednesday approved a measure that would make it a crime to change the date of national elections beyond Oct. 18, La Razón reported. Lawmakers have been trying to end protests organized by labor unions alongside rural and indigenous groups, many allied to the socialist party of ousted former President Evo Morales, who have blocked highways and paralyzed the Andean nation's economy for more than a week. The measure also calls on the executive branch to guarantee that financial resources for holding elections are allocated so as to prevent the spread of the novel coronavirus. Diplomats from the European Union have been involved in talks with protesters and government officials over the election dispute. The bill now passes to the Chamber of Deputies, after which it will be sent to Interim President Jeanine Áñez for enactment. On Wednesday, Morales asked supporters to accept Oct. 18 as the date for general elections, Télam reported.

ECONOMIC NEWS

Departures Rattle Brazil's Pro-Market Economic Team

Two high-profile members of Brazilian Economy Minister Paulo Guedes' team resigned their posts this week, leading some analysts to ask if the pro-market agenda of far-right President Jair Bolsonaro was in jeopardy, Folha de S.Paulo reported Wednesday. Salim Mattar, a businessman charged with privatizing state assets, quit on Tuesday, Bloomberg News reported. At the same time, Paulo Uebel, the government's

lead to "de-bureaucratize" the country's massive public sector, also stepped down, citing a lack of progress. Guedes acknowledged the importance of their departures. "It was a stampede," Guedes told reporters. Since Bolsonaro took office in January last year, nearly half of Guedes' economic team has departed. Guedes said he plans to stay in the job.

Mexico Launches Bid to Attract More Foreign Investment

The Mexican government has launched a new initiative to convince foreign firms to bring production to the Latin American country with a "relocation strategy" campaign, The Washington Post reported Wednesday. As U.S.-China tensions continue to rise and the pandemic forces some companies to re-think their global supply chains, Mexico hopes to offer an alternative to Asian production. "As a result of Covid, many global value chains are going to form regional chains for reasons of efficiency, profitability and also for safety," said Ernesto Acevedo, Mexico's deputy economy minister. "Mexico is going to take advantage of this moment," he added.

Argentina Deal With IMF Only Possible Next Year: Guzmán

Argentine Economy Minister Martín Guzmán said Monday that talks over the country's \$44 billion debt with the International Monetary Fund "will be tough and will take months," suggesting that it will be possible to close a deal "only at the beginning of next year," state news agency Télam reported. "We do not see a quick agreement due to the number of issues that must be negotiated," Guzmán said. Guzmán said that he would not rule out that the IMF would try to put conditions on any deal, such as labor flexibility or pension reforms, adding he would not go along with "anything that goes against a virtuous and stable development path for Argentina," Télam reported.

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by seven in the last eight years, a share that can grow several times more if the exit of fossil fuel-powered plants from the system is accelerated, which could be done if the current government proposed it. In addition, the country's first solar thermal power plant (CSP) came into operation, and a second is announced, which could become the region's great technological novelty as it transforms renewables, criticized for their intermittency, into base energy for the electric system and the solution for a definitive transition to 100 percent renewable energy."

A **Cecilia Aguillón, director of the energy transition initiative at the Institute of the Americas:** "The developments and announcements from Chile are indeed meaningful. The closure of Enel's Bocamina coal-fired plant should come as no surprise given both the country's and the firm's commitment to decarbonizing their generation sources. The decision to switch from carbon-based to renewables-based power underscores that it's good for the economy and the environment. It also reaffirms Chile's hemispheric leadership on renewable energy and combating emissions and climate change. Indeed, Chile has been a leader in Latin America in the deployment of renewable energy technologies for several years. In fact, the Chilean Energy Ministry has indicated that investments in renewable energy will be part of the economic recovery from the present health crisis, as this will attract investments, modernize and decarbonize its grid, create jobs and spur innovation in clean technologies. The costs of solar and wind are now even lower than conventional energy. In many cases, producing solar and wind electricity is actually cheaper than generating energy from coal. As a native resource, renewable energy does not have to be shipped, combusted or processed. It is

transmitted or distributed as electricity from the production point using transformers to adjust voltage and/or inverters to change from direct current to alternate current. Chile's latest renewable energy developments also undergird the fact that the sources have proved to be faster to develop and cheaper to maintain. Enel's expedited effort to close the Bocamina plant moves Chile closer to achieving its carbon-neutral goal by 2050 and brings a great deal of positive attention to its green recovery."

A **María Trinidad Castro Crichton, executive director of the World Energy Council, Chile:** "For Chileans and in particular for the World Energy Council and WEC Chile, the closure of Bocamina plant in 2022 is excellent news as our organization promotes a sustainable energy system for the benefit of all people. In this sense, the advancement and acceleration of the decarbonization plan is a great and important step toward the goal of decarbonization, considering the public-private commitment toward these objectives. The renewable energy sector has had a very significant experience in the last 10 years. By the end of this year, more than 20 percent of Chile's energy matrix will be made up of renewable energies, especially solar. Carbon neutrality for 2050 is more than an idea; it is a path. Of course, it is not without difficulties, but it is a certain path where all actors have a strong commitment and can work together to achieve this great goal. At WEC Chile we collaborate with this purpose, and we are convinced that in collaboration with all sectors, the dream of carbon neutrality will be a reality, and we hope to achieve it before the proposed date."

The Advisor welcomes comments on its Q&A section. Readers can write editor Gene Kuleta at gkuleta@thedialogue.org.

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