Can Latin America Produce Sustainable Aviation Fuels?

As the aviation industry seeks to reduce its greenhouse gas emissions, the global sustainable aviation fuel (SAF) market is expected to grow sharply in the years ahead, according to a September blog post by S&P Global Platts. What fuels and technologies show the most promise to sustainably power aircraft transportation? Are countries in Latin America and the Caribbean in a position to capitalize on the market growth, and what regulations and incentives should governments in the region put in place in order to advance the SAF market? Has the financial pressure put on airlines due to the Covid-19 pandemic reduced their ability to upgrade fleets, and will this significantly delay the adoption of renewable fuels in the industry?

Cecilia Aguillón, director of the energy transition initiative at the Institute of the Americas: “Most airlines, including in Latin America, have already been using sustainable fuels (SAFs) for years, but prices must be competitive with conventional fuels to make a meaningful impact in the SAF market. Latin America can play a central role in the production of biofuels, including SAFs, given the region’s vast agricultural resources and efforts to-date to develop the industry. However, a concerted effort from governments, investors and oil companies would be needed to accelerate production and reduce costs. Many governments across Latin America see the pandemic as an opportunity to shift their energy focus from fossil fuels to clean technologies to help their economies recover. Latin America can produce feedstock for SAF such as sugar cane, algae and organic waste from the agricultural industry, restaurants and even households (cooking oil and organic waste).”

Continued on page 3
OIL AND GAS NEWS

Samsung Secures $3.6 Billion Deal for Mexican Refinery

South Korea-based Samsung Engineering said last Friday that its consortium had secured a $3.6 billion deal to build refinery facilities in Mexico, Yonhap News Agency reported. The company said it received a letter of intent from PTI Infraestructura de Desarrollo, a subsidiary of Mexican state-owned oil company Pemex, for the Dos Bocas refinery project on Mexico’s southern Gulf Coast. The refinery will have a daily processing capacity of 340,000 barrels of crude oil per day. Mexican Energy Minister Rocío Nahle said this month that construction of the new refinery, which started in June 2019, was almost a quarter completed, Reuters reported. The government has said it aims to finish the $8 billion project by 2022. Investors and ratings agencies have criticized the project, arguing that resources should go instead to more profitable parts of Pemex. “President López Obrador’s pet projects (including the Mayan Train and the Dos Bocas Refinery) are not the way to energize and protect the economy. Those investments could be better used to help small businesses and independent professionals to survive,” Wolfram Schaffler González at Texas A&M International University said in the May 4 issue of the daily Latin America Advisor.

Estimates for Guyana Block Up to Nine Bn Barrels of Oil: Hess

The resources available at Guyana’s offshore Stabroek block are estimated at nine billion barrels of oil equivalent (boe), up from more than eight billion boe, which was forecast earlier this year, in part due to recent discoveries, S&P Global Platts reported last week. John Hess, the chief executive of Hess Corp., which, alongside ExxonMobil and China’s CNOOC, is developing the block, said he now sees potential for as many as 10 floating, production, storage and offloading (FPSO) facilities in the deepwater block. The first phase of production in the block’s Liza field began late last year. “In 2018, I think [the block’s resource estimate] was 4 billion boe, and that’s when we talked about five ships and 750,000 barrels per day,” Hess said during the company’s third-quarter conference call. Despite an update in the number of FPSO ships, the partners still expect the same output value by 2026, he added.

U.S. Ends Exemption for Diesel Supply to Venezuela

The administration of U.S. President Donald Trump last week declined to renew an exemption from sanctions for diesel supplied to Venezuela by non-U.S. companies, Argus Media reported. The transactions had been allowed on humanitarian grounds despite U.S. sanctions against Venezuelan state oil company PDVSA since early 2019. India’s Reliance Industries has been supplying diesel to the Andean nation in exchange for Venezuelan crude, while Spain’s Repsol and Italy’s Eni have been lifting oil in the country as payment from PDVSA for historical debts, shipping back diesel to balance the books, Argus Media reported. The Trump administration’s move to block diesel swaps is its latest effort to pressure the government of Venezuelan President Nicolás Maduro, Bloomberg News reported. “We are trying to stop the export of crude by the Maduro regime in Venezuela, and one of the ways we are trying to stop it is to prevent people from swapping various products for it, not just paying cash for it. So, swapping debt, swapping diesel,” U.S. special envoy to Venezuela Elliott Abrams told reporters last week. U.N. High Commissioner for Human Rights Michelle Bachelet had called on the U.S. government to maintain the exception on humanitarian grounds. As the Andean nation faces severe fuel shortages, imported diesel in Venezuela is used for power generation, municipal water supply, agricultural activity, as well as

NEWS BRIEFS

Ecuador Will Reject Repsol’s Planned Sale of Assets: Energy Minister

Ecuador will reject Spanish oil firm Repsol’s planned sale of its assets in the Andean nation to Canada’s New Stratus Energy, Energy Minister René Ortiz said on local radio last week, Reuters reported. The Calgary-based company said last week that it had signed a letter of intent to buy Repsol’s stake in two upstream oil blocks in Ecuador, and another stake in OCP Ecuador, which operates the country’s heavy crude pipeline. Ortiz said New Stratus did not meet technical and financial requirements.

Brazil Allows Wind, Solar Projects of 172 MW to Join Reidi Incentive Scheme

Brazil has allowed wind and solar projects totaling 171.9 megawatts of installed capacity to enter the national Incentive Regime for Infrastructure Development, or REIDI, Renewables Now reported last week. The five wind projects have a combined capacity of 78.9 megawatts and will require a total investment of about 440.9 million reais ($76.2 million). Meanwhile, the Xaxado 1, 2 and 3 photovoltaic solar plants each have a capacity of 32 megawatts and will require a total investment of approximately 337.3 million reais.

China’s Goldwind Signs Turbine Deal in Brazil

China-based wind turbine maker Goldwind has signed a new contract to supply 18 new machines in Brazil, REVE Reported Saturday. Goldwind signed the deal with power company CGN Energy, which is also under Chinese control. Delivery of the wind turbines is expected to begin in 2021. Goldwind said the deal will bring its negotiated capacity in Brazil to almost 500 megawatts. According to the Brazilian Wind Energy Association, wind power has become the second-largest source of electricity in Brazil.
U.S. Assures Eni Repairs in Venezuela Not Under Sanctions

Italian oil company Eni’s efforts to prevent an oil spill from a floating crude facility in Venezuelan waters do not violate sanctions, the U.S. State Department said Monday, Reuters reported. Recent images showing the Nabarima vessel, which is owned by a joint venture between Eni and Venezuelan state oil company PDVSA, tilting to its side have sparked concerns of a potential environmental disaster. The ship, which has been stranded for two years in the Gulf of Paria between the Andean nation and Trinidad and Tobago, is carrying some 1.3 million barrels of crude. That’s five times more oil than what was leaked during the 1989 Exxon-Valdez oil spill in Alaska, one of the worst environmental catastrophes in modern history, National Geographic reported. Eni had been holding off on trying to offload the oil over fears of violating U.S. sanctions against PDVSA.

Chile’s Colbún Sees Net Profit Fall 16% From Jan.–Sept.

Chilean power utility Colbún posted a net profit of $152.3 million for the first nine months of the year, down 16 percent as compared to the same period a year ago, Renewables Now reported last Friday. The company cited higher nonoperating losses in connection to bond refinancing issuance costs as the reason for the drop in net profit. In the third quarter, Colbún registered a 14 percent increase in net

power sector news

as food distribution and public transport. The Venezuelan opposition’s envoy to the United Nations, Miguel Pizarro, had made similar calls, as had local farmers and businessmen, Argus Media reported.

Arnaldo Viera de Carvalho, CEO of ESCOnsult International: “The SAF market has a much better integrated, coordinated and coherent industry stakeholder support structure than the alternative automotive fuels market. Also, the fuel drop-in approach adopted by the aviation industry, avoiding major engine conversions, overcomes several logistics barriers and is fully in line with its international nature. As of today, the ASTM standard D7566 has already approved eight SAF production technologies, but only two can be considered commercially available for the moment (HEFA and ATJ)

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Several other pathways are coming online in the next couple of years, if not months. Most certainly, these technologies and feedstock combinations will coexist globally, depending on local feedstock supply conditions. More than 200,000 commercial flights have already demonstrated the technical feasibility of SAF production, logistics and use worldwide. SAF costs and market uncertainty have been major impediments for a larger market share, requiring more airline fuel off-take agreements and new market and policy frameworks, such as the carbon reduction credits created under ICAO: the Carbon Offsetting and Reduction Scheme for Aviation (CORSIA). Latin American and Caribbean countries have all conditions (labor, land, soil, climate, sun, water and infrastructure) to produce most of those SAF alternatives in a competitive way, contributing to the region’s social and economic sustainable development, as already demonstrated by ethanol and biodiesel production in Brazil, the biofuels leader in the region. As evidence of this potential, a variety of initiatives are happening in the region, such as several macauba plantations in Brazil, modernization of airport infrastructure to accommodate SAF storage in Peru, and the first South American SAF commercial production unit in Paraguay by the ECB Group, a leader in biodiesel production in Brazil: the HVO/SPK Omega Green Project, with a capacity of 20,000 barrels per day, using animal fat and soybean vegetable oil as feedstock and requiring an $800 million investment.”

Ana Ángel, Latin America manager at energy consultancy Hinicio: “The global aviation industry produces around 2 percent of all human-made CO2 emissions. The rising demand for flights means this figure could more than double by 2050. The industry needs a radical shift toward reducing its climate impact if we are to achieve net-zero carbon objectives. The options to decarbonize aviation include biofuels, synfuels or new propulsion technologies such as hydrogen combustion in turbines and fuel cells. A recent E.U. study on hydrogen-powered aviation shows that out of these four options, fuel cell systems can reduce climate impact the most, followed by hydrogen combustion. Flying hydrogen-powered aircraft will be technologically possible by 2030-2035, first on regional and short-range flights, while long-range flights probably won’t be ready before 2050. The same EU study finds that hydrogen deployed to power short- and medium-range flights could provide economic development in rural areas. Countries with national oil companies (NOCs), such as Brazil, Mexico, Ecuador, Colombia and Peru, can use their refineries to produce the fuels. NOCs can partner with airlines to sell SAF and with agricultural cooperatives to purchase the feedstock. The role of government is crucial in making SAF truly sustainable. Regulations will be needed to keep food producers from switching their crops to fuels and to prevent damage to local ecosystems. Incentive mechanisms could help promote decentralization of feedstock production and equitable jobs for women. Fiscal incentives for NOCs to produce SAFs would help reduce costs and accelerate a transition to clean fuels. SAF production could create jobs, reduce waste and attract investments to the region.”
profit to $62.2 million as nonoperating losses decreased, the company added. Earnings before interest, taxes, depreciation and amortization, or EBITDA, declined 3 percent in the nine months through September, to $502.6 million, as a result of a fall in revenues. Total revenue was down 11 percent to just above $1 billion, in part due to lower sales to regulated clients and overall lower demand amid coronavirus-related restrictions. In the January-September period, Colbún’s power plants in Chile, including renewables and a contracted wind farm, generated 9,645 gigawatt-hours of electricity, 4 percent higher than in the same period a year earlier. With regard to the impact of the Covid-19 pandemic on demand for electricity, the company said “uncertainty still exists” over how long the situation will last, La Tercera reported. “Energy demand in Chile has fallen approximately 2 percent during the third quarter, as compared to the same period in 2019.” In Peru, where Colbún also has operations, demand for electricity fell approximately 4 percent in the July to September period, the company added.

**POLITICAL NEWS**

**Deadly Storm Slows, Continues Hitting Honduras With Rain**

Eta, which struck northeastern Nicaragua and eastern Honduras on Tuesday as a Category 4 hurricane, has weakened to a tropical depression but was drenching Honduras this morning with torrential rain that has already caused deadly landslides in the region, the Associated Press reported. The storm was continuing to “produce heavy rains and life-threatening flooding over portions of Central America,” the U.S. National Hurricane Center said in an advisory Thursday at 3 a.m. Central Time. At that time, the storm was centered about 90 miles south of La Ceiba, Honduras, with maximum sustained winds of 30 miles an hour, moving west-northwest at 8 miles an hour, the Hurricane Center added. Eta is forecast to return into the Caribbean late today and then strengthen to a tropical storm on Friday, possibly hitting Cuba on Sunday and parts of southern Florida on Monday, the AP reported. Before the storm even began pounding Honduras, floodwaters forced hundreds of people from their homes. Early Tuesday, the mayor of the central Honduran town of Sulaco said a 15-year-old boy had drowned attempting to cross a river that had been swollen by heavy rains. The same day, a 12-year-old girl was killed in a mudslide in the Honduran city of San Pedro Sula, according to Marvin Aparicio, an official at the country’s emergency management agency. On Wednesday, Aparicio said that approximately 379 homes had been destroyed, mainly by floodwaters, the AP reported. Additionally, 38 communities were cut off as roads

**ADVISOR Q&A**

**How Do Latin Americans View the U.S. Election?**

Q The results of Tuesday’s presidential race in the United States remained too close to call Thursday morning as former Vice President Joe Biden approached the number of electoral votes needed to be elected, and President Donald Trump’s campaign launched a series of legal challenges in key states. How do Latin Americans view the United States’ bitter and contested national vote, and what do they most want to see from the next president? What do the results so far say about the influence of Latinos voting in the United States? Amid reports of missing mail-in ballots and potential legal challenges, to what extent do you see the election as being free and fair?

A Carolina Goic Boroevic, senator and former presidential candidate in Chile: “First, I hope the dilemma over the votes is resolved as soon as possible and in the most transparent way possible. Raising doubts about the results in such a close election does not do the United States any good, and given the country’s relevance, it does no good to democracy worldwide. Regarding the Latino vote, and ballots cast for example in New York, California, Arizona, Texas and Florida, we can no longer speak of the Latino vote as one thing, because there are differences. In the first two states, we already know that Biden won and that he could also win Arizona. But, in Texas and Florida, we know that President Trump won. What happened in Florida reveals the volatility of the Latino vote, because in that same state last election, Hispanics had voted for Hillary, and today they support Trump. As such, it is difficult to say what all Latinos want, although I dare to point out that, regardless of who is elected as the next president of the United States, what the Latino community wants is for their voices to be heard and their rights to be respected, considering they are the largest minority, representing 18 percent of the population, and that they can define an election regardless of individual political positions. The United States is and has been an example of democracy throughout its history. The worst that could happen is that, beyond questions surrounding its electoral system, that there be doubts about the results, as President Trump has raised. As of today, I believe that elections were free and fair. But I also believe the debate on whether the voting system is the most appropriate is totally legitimate; however, that cannot happen in the middle of a campaign or when there are doubts about results in an election as close as what we’re witnessing.”

**EDITOR’S NOTE** More commentary on this topic appears in Thursday’s issue of the daily Latin America Advisor.
**NEWS BRIEFS**

**Iranian Foreign Minister Arrives in Venezuela to Begin Tour of Region**

Iranian Foreign Minister Mohammad Javad Zarif arrived in Venezuela for a tour of Latin America, Venezuela’s foreign ministry said Wednesday, Reuters reported. Zarif’s trip is to include visits to Cuba and Bolivia, where he plans to attend the inauguration of President-elect Luis Arce, who has said he will strengthen ties with Iran. The Middle Eastern country has become a key ally of Venezuelan President Nicolás Maduro amid U.S. sanctions aimed at removing him from power.

**Delgado Takes Over as Interior Minister, Cabinet Chief for Chile’s Piñera**

A former mayor of the Estación Central commune in the Chilean capital city of Santiago on Wednesday took office as the new interior minister and chief of cabinet, the fourth person to hold that position in President Sebastián Piñera’s administration, Agence France-Presse reported. Rodrigo Delgado, 46, is replacing Víctor Pérez, who resigned on Tuesday after the Chamber of Deputies passed a constitutional indictment against him, temporarily banning him from office. Pérez came under fire for not having defused a protest by truckers who were blocking roads, AFP reported.

**Chile to Hold Clinical Trials of AstraZeneca’s Potential Covid Vaccine**

President Sebastián Piñera said Wednesday that Chile’s health regulator had approved clinical trials of the potential Covid-19 vaccine of British pharmaceutical maker AstraZeneca, Reuters reported. The AstraZeneca trial would follow other trials by U.S.-based Johnson & Johnson and China’s Sinovac, said Piñera. The Sinovac vaccine arrived in Chile on Wednesday, the wire service reported.

**Prosecutors File Charges Against Bolsonaro’s Son**

Brazilian prosecutors said Wednesday that they had filed charges against Senator Flávio Bolsonaro, a son of President Jair Bolsonaro, on charges of embezzlement, money laundering and running a criminal organization, The Wall Street Journal reported. Flávio Bolsonaro has been under investigation in connection with an alleged scheme to siphon off taxpayer money in his former job as state deputy in Rio de Janeiro. He has previously denied wrongdoing. Sixteen other people were also charged in relation to the case.

**Mexico’s government rejected similar proposals last month.**

**IMF Urges Mexico to Implement Tax Reform Package**

The International Monetary Fund has urged Mexico to implement a tax reform once the country begins recovering from the economic fallout of the Covid-19 pandemic, according to a central bank statement published Wednesday that outlines recommendations issued by the lender. IMF directors suggested a tax reform to support government spending in the medium term, saying they generally “saw the need for announcement of a credible medium-term tax reform, to be implemented once the recovery is underway, to bolster the space for providing near-term support, close fiscal gaps, lower public debt and finance needed investment spending.” Directors proposed broadening the tax base, raising subnational taxes and reducing value-added tax gaps while strengthening social safety nets. Leftist Mexican President Andrés Manuel López Obrador has resisted raising taxes, although his government has narrowed down on tax collection and enforcement, Reuters reported. Last month, Deputy Finance Minister Gabriel Yorio quickly rejected IMF recommendations for a fiscal and tax reform in the country, El Economista reported."

**Brazil Manufacturing Expands at Record Pace in October**

Brazil’s level of manufacturing grew last month at a record pace, according to a survey of purchasing managers’ activity, Reuters reported. The IHS Markit purchasing managers’ index report showed record high prices of inputs and outputs as a result of a persistently weak exchange rate, as well as lower expectations for future output, the wire service reported. In October, the headline PMI index rose 66.7 percent, as compared to a 64.9 percent rise in September. The October increase was the highest since the index was first tabulated in February 2006. Levels above 50 show expansion for output, new orders, exports and employment were at or near record highs, said Pollyanna De Lima, the associate economics director at IHS Markit.

**ECONOMIC NEWS**

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Steve Csonka, executive director of the Commercial Aviation Alternative Fuels Initiative: “SAF facilities are already online, several are in construction, and many more are in different phases of project development. The industry has line-of-site to more than one billion gallons per year production by 2026. Airlines have committed more than $6.5 billion in offtakes from these facilities. The aviation industry has approved SAF production from seven different conversion processes, with six more in various stages of qualification. Aviation’s intent is to ensure there are appropriate SAF conversion processes to enable production worldwide and from a broad range of regionally appropriate feedstocks. Each conversion process shows promise under the right circumstances, driven by the specifics of the proposed supply chain. In the long run, we expect those with the lowest production costs to enjoy the most success. With feedstocks generally comprising a large percentage of production costs, we expect production methodologies with low feedstock costs to fare well (MSW and waste fats, oils and greases). However, we have examples from opposite ends of the spectrum, with HEFA production representing lower capex and higher opex (depending on the source of the lipids), and FT conversion of MSW representing the opposite. Countries in LAC are in a good position to participate for either of those cases. There are promising evaluations with purpose-grown, low-ILUC crops, too, such as the winter-cover-crop carinata. Governments can assist by considering incentives that help close any price gaps between conventional jet fuel and SAF, and by not creating policies that place SAF at a disadvantage to other renewable fuels. Business is currently difficult for the aviation and travel industries, so don’t expect to see significant aggressiveness from the airlines on additional SAF deals in the near term. However, in the same way that airlines are fighting for near-term survivability due to Covid-19, they are also fighting for long-term survivability in a world with continuing elevation of sustainability expectations. SAF will be a primary contributor for the industry to achieve anticipated greenhouse gas reductions.”

Haldane Dodd, head of communications at the Air Transport Action Group: “Aviation has a range of options to reduce emissions, but the largest opportunities in the long term are through the deployment of new technology aircraft and the transition to 100 percent SAF. New analysis by the Air Transport Action Group shows that we may need around 450 million-500 million metric tons of SAF per year by 2050 to reach our climate goals. The region has some great opportunities to tap into local feedstock sources to produce SAF—this can help aviation reduce emissions and local economies to benefit by shifting toward green energy jobs. Each country and region will have its own potential for SAF feedstock development: from waste crops in Brazil to solar for power-to-liquid in Mexico and waste oils in Argentina, there are a number of possibilities. We need governments to realize the potential to help drive green connectivity as part of their climate action plans and support the development and scaling-up of sustainable fuels for air transport.”