

Japan passes economic security bill to guard sensitive technology

TOKYO — Japan's parliament on Wednesday passed an economic security bill aimed at guarding technology and reinforcing critical supply chains, while also imposing tighter oversight of Japanese firms working in sensitive sectors or in critical infrastructure.

Measures in the legislation, which is primarily aimed at China, will be implemented over two years once it is enacted, according to the bill. It comes after

United States imposed restriction on technology imports, such as semiconductors, amid growing tension Beijing.

The new law also arrives as the Russia's invasion of Ukraine — Moscow calls its actions "a special operation" — adds pressure on Japan to do more to protect supply chains and infrastructure from hacking and cyberattacks, and ensure that technology critical to national security is not stolen.

It will give Japan's government the power to order companies to notify it of software updates and vet some equipment procurement in 14 industries, including energy, water supply, information technology, finance and transportation.

The legislation also provides subsidies for companies to help them strengthen supply chains against disruption such as shortages of components shipped from overseas. It further establishes a

system for government officials to make on-site inspections at firms.

The new security mechanism it sets out promises government money for research and development into key technologies deemed important for economic security.

It also establishes a system of secret patents kept in Japan to ensure technological breakthroughs are not used by other countries to develop nuclear weapons or other military equipment. — *Reuters*

Chatbots in US justice system raise privacy concerns

LOS ANGELES/WASHINGTON — When the US state of New Jersey lifted a coronavirus disease 2019 (COVID-19) ban on foreclosures last year, court officials hatched a plan to handle the incoming influx of cases: train a chatbot to respond to queries.

The program — nicknamed JIA — is one of a number of bots being rolled out by US justice systems, with advocates saying they improve access to services while critics warn automation opens the door for errors, bias, and privacy violations.

"The benefit of the chatbot is you teach it once and it knows the answer," said Jack McCarthy, chief information officer of the New Jersey court system.

"With a help desk or staff, you tell one person and now you've got to train every other staff member."

The trend towards such chatbots could accelerate in the near future — the US Department of Justice (DoJ) last month closed a public call asking for examples of "successful implementation" of the technology in criminal justice settings.

"It raises a flag that the DoJ is going to move towards funding more automation," said Ben Winters, a lawyer with the rights group the Electronic Privacy Information Center (EPIC), which submitted a cautionary comment to the DoJ.

It urged the government to study the "very limited utility of chatbots, the potential dangers of over-reliance, and collateral consequences of widespread adoption."

The National Institute of Justice (NIJ), the DoJ's research arm, said it is simply gathering data in an effort to respond to developments in the criminal justice space and create "informative content" on emerging tech issues.

A 2021 NIJ report identified four kinds of criminal justice chatbots: those used by police, court systems, jails and prisons, and victim services.

So far, most function as glorified menus that do not use artificial intelligence (AI).

But the report predicts that much more advanced chatbots, including those that measure emotions and mimic empathy, are likely to be introduced into the criminal justice system.

JIA, for its part, was trained using machine learning from court documents and can handle 20,000 variants of questions and answers, from queries over wiping criminal records to child custody rules.

Its developers are trying to build more tailored services, allowing people to ask for personal information such as their court date.

But it is not involved in making any decisions or arbitration — "a thick line" that the courts system does not intend to cross, said Sivakumar Appavoo, a program manager working on AI and robotic automation.

HIGH STAKES

Snorri Ogata, the chief information officer of Los Angeles courts, said his staff tried to build a JIA-style chatbot, trained using years of data from live agents handling questions about jury selection.

But the system struggled to give accurate answers and was often confused by queries, he said. So the court settled on a series of simpler menus that do not allow open-ended questions.

"In justice and in courts, the stakes are higher, and we were stressed about directing people incorrectly," he said.

Last year, the Identity Theft Resource Center — a nonprofit that helps victims of identity theft — tried to train a chatbot to respond to victims outside working hours, when staff was not available.

But the system — supported by DoJ funding — was unable to provide consistently accurate information, or respond with appropriate nuance, said Mona Terry, the chief victims officer.

In particular, it could not adapt to new identity theft schemes that cropped up during the COVID-19 pandemic, which produced new jargon and inquiries the system had not been trained for.

"There's so much subtlety and emotion that goes into it — I'm not sure a chatbot could take that over," Ms. Terry said.

Emily Bender, a professor at the University of Washington who studies ethical issues in automated language models, said carefully built interfaces to help citizens interact with government documents can be empowering.

But trying to build chatbots that mimic human interaction in a criminal justice context carries significant risks, she said.

"We have to keep in mind that anyone interacting with the justice system is in a vulnerable position," Ms. Bender told the Thomson Reuters Foundation.

Chatbots should not be relied upon to give time-sensitive advice to those at risk, she said, while systems also need to have strong privacy protections and offer people a way to opt out so they can avoid unwanted data collection. — *Reuters*



Explainer: Does the crypto crash pose a threat to the world's financial system?

WASHINGTON — On Tuesday, bitcoin fell briefly below \$30,000 for the first time in 10 months, while cryptocurrencies overall have lost nearly \$800 billion in market value in the past month, according to data site CoinMarketCap, as investors fret about tightening monetary policy.

Compared with the Fed's last tightening cycle which began in 2016 crypto is a much bigger market, raising concerns about its interconnectivity with the rest of the financial system.

HOW BIG IS THE CRYPTOCURRENCY MARKET?

In November, the most popular cryptocurrency, bitcoin, hit an all-time high of more than \$68,000, pushing the value of the crypto market to \$3 trillion, according to CoinGecko. That figure was \$1.51 trillion on Tuesday.

Bitcoin accounts for nearly \$600 billion of that value, followed by ethereum, with a \$285-billion market cap.

Although cryptocurrencies have enjoyed explosive growth, the market is still relatively small.

The US equity markets, for example, are worth \$49 trillion while the Securities Industry and Financial Markets Association has pegged the outstanding value of US fixed income markets at \$52.9 trillion as of the end of 2021.

WHO OWNS AND TRADES CRYPTOCURRENCIES?

Cryptocurrency started out as a retail phenomenon, but institutional interest from exchanges, companies, banks, hedge funds and mutual funds is growing fast.

While data on the proportion of retail versus institutional investors in the crypto market are hard to come by, Coinbase, the world's largest cryptocurrency exchange, said institutional and retail investors each ac-

counted for about 50% of the assets on its platform in the fourth quarter.

Its institutional clients traded \$1.14 trillion in crypto in 2021, up from just \$120 billion in 2020, Coinbase said.

Most of the bitcoin and ethereum in circulation is held by a select few. An October report from the National Bureau of Economic Research (NBER) found that 10,000 bitcoin investors, both individuals and entities, control about one-third of the bitcoin market, and 1,000 investors own approximately 3 million bitcoin tokens.

Approximately 14% of Americans were invested in digital assets as of 2021, according to University of Chicago research.

COULD A CRYPTO CRASH HURT THE FINANCIAL SYSTEM?

While the overall crypto market is relatively small, the US Federal Reserve, Treasury Department and the international Financial Stability Board have flagged stablecoins — digital tokens pegged to the value of traditional assets — as a potential threat to financial stability.

Stablecoins are mostly used to facilitate trading in other digital assets. They are backed by assets that can lose value or become illiquid in times of market stress, while the rules and disclosures surrounding those assets and investors' redemption rights are murky.

That could make stablecoins susceptible to a loss of investor confidence, particularly in times of market stress, regulators have said.

That happened on Monday, when TerraUSD, a major stablecoin, broke its 1:1 peg to the dollar and fell as low as \$0.67, according to CoinGecko. That move partly contributed to bitcoin's fall. — *Reuters*

FULL STORY



Read the full story by scanning the QR code with your smartphone or by typing the link <bit.ly/Crypto051222>

Refund cuts Meralco power rates in May

POWER users' electricity bill in May is set to decrease by 12 centavos per kilowatt-hour (kWh) or around P24 for a typical household using 200 kWh, the country's biggest utility firm said on Wednesday.

In a media release, Manila Electric Co. (Meralco) said the overall rate this month is down to P10.063 per kWh from P10.183 per kWh in April. Distribution-related refund has offset an increase in power generation charge, it said.

"The overall rate reduction was mainly due to the Energy Regulatory Commission's (ERC) order to Meralco to refund a total of P7.8 billion," the listed electricity distributor said.

The company said the refund is equivalent to P0.4669 per kWh for residential customers. The power seller's customer count is around 7.46 million, of which 92% are residential users.

"This (refund) will appear as a separate line item in customers' power bills," it said.

This month's rate adjustment translates to a P36 decrease in the power bill of residential customers using 300 kWh, while those consuming 400 kWh and 500 kWh can expect a decline of P48 and P60, respectively.

Ronald V. Valles, Meralco head of regulatory management, said: "As a highly regulated entity, Meralco's rates are constantly being reviewed to make sure they are fair and reasonable."

"The immediate implementation of the ERC's order more than offset the impact of the increase of the generation charge this month, benefitting Meralco customers," he added.

This month, the power generation charge is up by P0.3553 to P6.2277 per kWh from the P5.8724 per kWh in April.

Charges from power supply agreements (PSAs) rose by P0.8045, while those from independent power producers (IPPs) went down by P0.4319 per kWh.

Meralco said the price of Malampaya natural gas went up by 10% starting in the second quarter to reflect the surge in global crude oil prices.

It identified the power suppliers with pass-through adjustments for the offshore gas field's fuel as First Gas Power Corp.'s Sta. Rita and San Lorenzo plants, and First NatGas Power Corp.'s San Gabriel plant. The plants accounted for 36% of Meralco's supply in April.



RUSSELL PALMA/PHILIPPINE STAR

Meralco added that the peso's depreciation had an impact on the suppliers' charges. It cited the increase in usage of more expensive liquid fuel after the Malampaya consortium's continued failure to provide enough supply of natural gas.

It said the generation charge for May includes the second of three installments of the deferred generation costs for the March bill and the first of three installments for the deferred generation costs for the April bill. It placed the installments to be equivalent to an add-on of around P0.20 per kWh in the generation charge.

Charges from the wholesale electricity spot market (WESM) declined by P0.8664 per kWh with the lower demand in the Luzon power grid due to nonworking holidays and cooler temperature in April.

"PSAs, IPPs, and WESM accounted for 48%, 41%, and 11%, respectively, of Meralco's energy requirement," Meralco said.

Meanwhile, the transmission charge, taxes, and other charges for residential customers had a slight decrease of P0.0084 per kWh, it said, adding that the collection of P0.0025 per kWh for the universal environmental charge remains suspended as ordered by the ERC.

Meralco earns from distribution, supply, and metering charges, which have stayed unchanged since the reduction in July 2015.

Pass-through charges from power generation and transmission are paid to the suppliers and the grid system operator, respectively. Taxes, universal

charges, and the feed-in tariff allowance are remitted to the government.

In the same media release, Meralco said that there were no major power interruptions in its service area during the May 9 national and local elections, which it attributed to "months-long preparations."

"The distribution utility reported 35 isolated outage incidents, all of which were immediately addressed by field personnel that were strategically positioned across its franchise area," it said.

It also called for more participants in the interruptible load program (ILP), or the voluntary, demand-side management scheme led by the Energy department. ILP taps businesses to collectively cut electricity drawn from the grid by using their own power generation sets during imminent power interruptions.

As of May 10, up to 121 companies with a combined de-loading capacity of 554 megawatts in Meralco's franchise area have joined the program.

Meralco also called on consumers to practice energy efficiency methods amid the expected increase in power usage during the summer months.

Meralco's controlling stakeholder, Beacon Electric Asset Holdings, Inc., is partly owned by PLDT Inc. Hastings Holdings, Inc., a unit of PLDT Beneficial Trust Fund subsidiary MediaQuest Holdings, Inc., has an interest in *BusinessWorld* through the Philippine Star Group, which it controls.

On Wednesday, Meralco shares fell by 2.86% or P9.80 to close at P333.20 each. — *Victor V. Saulon*

ACEN reports lower income

AC ENERGY Corp. (ACEN) reported a 68% decline in first-quarter consolidated net income to P405 million due to higher costs of purchased power from the spot market after the preventive maintenance outage of a power plant.

"The company faced significant headwinds in the first quarter from the impact of natural disasters, extended plant outages, and elevated spot purchases," ACEN Chief Finance Officer and Treasurer Maria Corazon G. Dizon said in a media release on Wednesday.

During the quarter, consolidated revenues rose by 29% to P7.4 billion, driven by new operating capacity, including two solar farms each in the Philippines and in India, and several wind farms in Vietnam.

Aside from the maintenance of South Luzon Thermal Energy Corp.'s (SLTEC) power plant, revenues were hit by the curtailed output of the company's facilities in the Visayas because of a transmission line damage from Typhoon Odette and a previous damage to a subsea cable.

"However, we expect these issues to be resolved in the short to medium term, with the full rehabilitation of transmission lines damaged by [the typhoon], and supported by new operating capacity coming online in the next few months," Ms. Dizon said.

ACEN said to date, most transmission and distribution lines had been restored, but curtailment is still expected for the 80-megawatt (MW) Islasol solar farm until yearend because of the subsea cable's reconstruction.

"The company also incurred a one-time buyout expense related to a customer contract. Without the impact of these events, the company's net income would have reached approximately P1.6 billion during the period, for a growth of 23% year on year," the Ayala-led energy platform added.

Publicly listed ACEN said that although attributable output expanded by 4% to 1,161 gigawatt-hours, this was offset by the effects of the SLTEC outage and the output curtailment in the Visayas.

Meanwhile, international assets' output rose by 62% to soften the impact of the decline in the Philippines.

Renewable energy (RE) contribution increased by 52%, bringing its share to 76% of total energy production.

"To help achieve its capacity expansion targets and return to a robust growth trajectory, ACEN recently entered into new partnerships," the company said.

In March, it set up a joint venture with CleanTech Renewable Energy 4 Corp. to start building a 133-MW solar farm and transmission line in Lal-lo, Cagayan province.

A month later, ACEN and Germany-based ib vogt agreed to create a 1,000-MW solar asset platform in Asia.

In late April, ACEN partnered with US-based firms Pivot Power Management and UPC Solar & Wind Investments LLC "to pursue opportunities to acquire operating wind projects in the US and to explore strategies for extending their useful life through preventative maintenance and re-powering."

ACEN President and Chief Executive Officer Eric T. Francia said recent global events had shed light on the importance of energy security and had hastened energy transition worldwide.

"The recent conflict in Ukraine and supply chain disruptions have led to soaring prices of commodities and fossil fuels, highlighting the need for more indigenous and sustainable energy sources. ACEN's aggressive RE portfolio expansion and geographical diversification allow us to capitalize on these developments in the long run," Mr. Francia said.

ACEN, which aims to be the largest listed renewables platform in Southeast Asia, has around 3,800 MW attributable capacity in the Philippines, Vietnam, Indonesia, India, and Australia.

Of the figure, about 3,300 MW, or nearly 90%, is renewable. The company aims to install 5,000 MW of RE capacity by 2025.

At the stock exchange, shares in ACEN declined by 3.89% or 28 centavos to close at P6.92 each. — *VVS*