# Philippines sounds out potential suppliers of nuclear reactors from US

THE PHILIPPINES is lining up potential US suppliers and is also studying some domestic manufacturing to support its proposed nuclear power industry, Trade Secretary Alfredo E. Pascual said.

Mr. Pascual said at a briefing last week that the Philippine delegation to the US, led by President Ferdinand R. Marcos, Jr., met with two US nuclear power manufacturers to work out possible supply arrangements for the emerging industry. "There are two things that could happen. One is we can order from them the reactor — either the small modular reactor or the micro modular reactor. They already have clients but they don't have an actual plant that's operating. But they have contracts," Mr. Pascual told reporters.

"Another possibility that we are also pursuing is to have them build their manufacturing facility in the Philippines. There are two potential business models that we're targeting," he added. The two companies are NuScale Power Corp. and Ultra Safe Nuclear Corp. to discuss potential investment during the official visit to the US between April 30 and May 4.

According to Mr. Pascual, NuScale has a preliminary list of possible Philippine locations for its small modular reactor.

"With regard to the small modular reactor, this is sensitive to volcanic or geological movements. They already have a map of the areas in the Philippines that could be considered safe locations. But they don't have an actual decision yet on which province or which area they will build it if they proceed to build it," Mr. Pascual said.

Ultra Safe, which hopes to supply a micro modular reactor, is still in discussions for possible locations, depending on the reactor's final specifications, he said. "There are still ongoing discussions

on the micro modular reactor. Based

on the claim of the supplier, it is not sensitive to geological movement like earthquakes. It could be installed in areas that have volcanic activity," Mr. Pascual said.

Mr. Pascual said investment by NuScale and Ultra Safe will depend on whether they can sign local partners, an eventuality which he described as beyond the government's control.

He did not give an estimate on either reactor's projected cost.

"Our government is no longer in the business of running businesses. What government officials are doing is pointing them in a certain direction and providing them incentives so they will decide one way and not the other," Mr. Pascual said.

After his five-day trip to the US, Mr. Marcos announced on May 5 that the Philippines obtained \$1.3 billion worth of investment pledges, which are expected to generate 6,700 jobs. — **Revin Mikhael D. Ochave** 

# Sustainability fears raised over extended use of KADIWA stores

## By Ashley Erika O. Jose Reporter

A MEMBER of the Monetary Board (MB) has warned that an extensive network of subsidized KADIWA stores to distribute cutprice farm produce could be unsustainable.

MB member Bruce J. Tolentino told reporters that the KADI-WA network should operate at "targeted" locations for limited periods.

Commenting on proposals to expand the reach of Kadiwa

rolling stores to supermarkets, Mr. Tolentino said: "You can only keep it up briefly... for a few weeks (or) months as it will cost the government money. I think that if we view KADIWA as a targeted, short-term assistance, it will be useful, but over the long term, it is wasteful."

Mr. Tolentino was speaking on the sidelines of a seminar hosted by the Economic Journalists Association of the Philippines and San Miguel Corp. on Saturday.

The Sugar Regulatory Administration (SRA) had proposed to expand the rollout of the KADI-WA stores to sell sugar seized from smugglers, as well as other commodities, at supermarkets.

The SRA groceries and supermarket chains are offering space for KADIWA outlets.

Mr. Tolentino declared his support for KADIWA locations near depressed communities, as well as during emergencies and disasters, and within a limited period only.

"It's quick-acting but it is usually not sustainable. It will only last until '*ayuda*' (government aid) is available. KADIWA offers cheap food — bought by the DA (Department of Agriculture) at a high market price and sold at a subsidized price, but how long can they keep those subsidies?" Mr. Tolentino said.

United Broiler Raisers Association President Elias Jose M. Inciong cited potential problems with the logistics of selling seized goods.

"For smuggled products, it is better to give it away for free to vulnerable consumers based on a (trusted) database," he said in a Viber message.

The DA's Agribusiness and Marketing Assistance Service estimates a KADIWA network of 308 stores, pop-ups and KADIWA-onwheels outlets nationwide.

## US GSP could disrupt PHL export diversification

THE Philippines' potential readmission into a US preferential trading scheme could interfere with efforts to diversify its export base, an economist said.

The US Generalized System of Preference (GSP) program "creates a dependency on the US markets, making us more vulnerable to changes and uncertainties of the US economy," Leonardo A. Lanzona of Ateneo de Manila's economic department, said via chat.

"If we depend on GSP-eligible products, we fail to engage in export diversification as production can be limited to these US duty-free goods," he explained.

"It also creates a disincentive to diversify exports as GSP-eligible goods with duty-free privileges are given priority," he added.

President Ferdinand R. Marcos, Jr. called for the Philippines' readmission to the US GSP Program during his five-day visit to Washington last week. "We would like to request reauthorization...to boost trade and to make US products that are made in the Philippines more competitive in the global market," he said at a forum organized by the US-ASEAN Business Council and US Chamber of Commerce at Blair House in Washington, DC. Manila's eligibility for the nonreciprocal trade program expired on Dec. 31, 2020.

The Department of Trade and Industry has been pushing for the diversification of Philippine exports, saying it is key to long-term competitiveness. Trade Secretary Alfredo E. Pascual called for diversification last month following a significant drop in Philippine merchandise exports in February.

Mr. Lanzona said many countries are given GSP privileges, which means that the Philippines will "still need to compete with other GSP eligible countries if we want to increase our export revenues."

The Philippines' active trade deals including the Regional Comprehensive Economic Partnership (RCEP), as well as a number of trade privileges enjoyed as a member of the Association of Southeast Asian Nations (ASEAN). "Instead of asking for the Philippines' participation in the trade program, the Philippines should just focus on making RCEP work for its industries," Mr. Lanzona said. Participation in the trade program requires the approval of the US Congress.

Lucio B. Pitlo III, a research fellow at the Asia-Pacific Pathways to Progress Foundation, said Mr. Marcos did not make full use of the potential leverage afforded by the expansion of the 2014 Enhanced Defense Cooperation Agreement (EDCA).

"If he wants to expand economic ties or leverage the alliance to pursue economic goals, he could have asked for the GSP before or as one of concessions for granting additional EDCA sites," he said via chat. "He could also seek a firm US commitment to invest in processing critical minerals like cobalt and nickel crucial for next generation technologies like electric vehicles and green energy."

In February, Mr. Marcos announced the expansion of EDCA, giving Washington access to four more military bases on top of the existing sites, a move seen as improving the US military's position in any China-Taiwan conflict. Some analysts have described the GSP readmission process as subject to horse-trading the Democratic Party, which controls the Senate, and the Republican Party, which controls the House. on how parties would like to shape the US-Philippine alliance as a way to counter China's rise as a global power," Arjan P. Aguirre of the Ateneo de Manila Political Science department said via chat.

"We can expect here the intense partisan politics and clear party divides to determine this outcome."

Hansley A. Juliano, a political economy researcher studying at Nagoya University, said Philippine lobbying for GSP status faces roadblocks from Republican legislators critical of Mr. Biden's foreign policy and Democrat legislators skeptical of the human rights situation in the Philippines.

"Understandably, US lawmakers tend to be more generous to Ukraine due to the more tense security situation, and the push here in Asia might be relying on an assumption that... they can just give (the Philippines) the bare minimum," Mr. Juliano said.

## Aquaculture output seen normalizing with import ban lifted on fish feed raw material

#### By Sheldeen Joy Talavera Reporter

THE admission of a porkbased raw material used in the manufacture of fish feed is expected to lead to a normalization of aquaculture production, after the raw material was subject to a temporary import ban following an outbreak of African Swine Fever (ASF) in the source country, a former fisheries official said. "The non-availability of this

"The non-availability of this ingredient resulted in much decline in our production," according to Asis G. Perez, former director of the Bureau of Fisheries and Aquatic Resources and convenor of advocacy group Tugon Kabuhayan, speaking to *BusinessWorld* by phone.

The raw material is known as processed animal protein (PAP), an animal byproduct used in fish feed. The Department of Agriculture (DA) had banned PAP with the issue of Memorandum Order No. 5, Series of 2022 dated Jan. 31, after a confirmed outbreak of ASF in Italy, a major PAP producer.

"We're happy that the government finally allowed it to come in; the only problem here is the delay," he added.

The DA lifted the ban on imports of processed porcine or pork-based meal for use in animal feed on Dec. 28.

Mr. Perez noted that Italy accounts for 60%-70% of the Philippines' annual PAP imports of 150,000 metric tons (MT). Last year, aquaculture output rose 4.6% year on year to 2.35 million MT, according to the Philippine Statistics Authority.

However, some parts of the aquaculture industry registered declines.

The production of milkfish (*bangus*) decreased 12.6% year on year to 390,000 MT. Tilapia output fell 10.7% to 303,950, while that of round scad (*galunggong*) fell 3.8% to 174,710 MT.

Mr. Perez said that the industry is estimated to have incurred demurrage fees of about P10 million due to the delayed release of PAP.

Demurrage fees kick in when cargoes are not unloaded from ships within the agreed time.

The process for admitting PAP involves obtaining Sanitary and Phytosanitary Import Clearances and an International Veterinary Certificate. The BAI also inspects warehouses and conducts random testing for ASF.

"The government should take into account the fact that unnecessary delay is costing the industry real money," he said.

He recommended that the shipments containing PAP be sent to dedicated storage areas while awaiting test results.

The BAI was asked to comment but had not replied at the deadline.

"We're hoping that the aquaculture industry and the government can collectively work together so that at the end of the day, we will be able to increase our production and ensure that in spite of the impending El Niño, then we will be able to address (any possible shortages) by producing more," he said.

In 2020, the Philippines was deemed to have benefited from the US GSP program at a scale behind only Thailand, Indonesia, Brazil, and Cambodia.

"The chances of the Philippines making it again to GSP program will depend "Approving the Philippines' readmission into the GSP program would hardly cost their economy, but it would gain them a most loyal ally in the person of our President and our government," policy analyst Michael Henry Ll. Yusingco said via chat.

"This is the calculation I would expect them to make." — **Kyle Aristophere T. Atienza**  (111).

He said aquaculture is starting to recover with the arrival of PAP shipments in March.

"We are expecting there will be a correction from the previous decline. We are hoping that with the ingredients coming in, the productivity of aquaculture will increase again," he said.

He said that the aquaculture industry has learned from previous El Niños and improved its husbandry practices.

# **ChatGPT: A versatile AI model**

#### (First of two parts)

n November, ChatGPT 3.5 was released — and took the world by storm. ChatGPT touted its ability to create essays, write computer code, pass board exams, create business plans, and many other tasks such as, but not limited to, analyzing professional contracts and complex spreadsheets.

The ChatGPT 3.5 architecture follows Chat-GPT 3, which was launched in 2020 and is now being used by many large organizations such as Microsoft Corp., Google LLC, and Amazon.com,

SUITS THE

**RANDALL C. ANTONIO** 

**C-SUITE** 

Inc. for chatbots, virtual assistants and other Alpowered applications.

ChatGPT, or the Chat-Generative Pre-Trained Transformer algorithm, was developed by OpenAI.

OpenAI is an artificial intelligence (AI) research laboratory based in the US established in late 2015. It aims to promote and develop friendly AI, running on the fifth most powerful supercomputer in the world.

Close to six months after the launch of ChatGPT 3.5, OpenAI also launched ChatGPT 4. It promises to be even more powerful and versatile than its predecessor, improving on the weaknesses and limitations of ChatGPT 3 (which uses a relatively small database to train on). ChatGPT 4 uses a much larger 50 terabytes of high-quality training data through a combination of automatic and manual curation methods. This allows ChatGPT 4 to deliver better conversational AI applications, understand context, and generate more naturalsounding text. It is powerful enough to detect and respond to changes in tone and sentiment, and unlike ChatGPT 3, can also make images.

#### THE SCIENCE BEHIND GPT

Generative Pre-Trained Transformer (GPT) is a type of large language model (LLM) neural network that can perform various and complex natural language processing tasks. It is a type of a deep learning algorithm that uses a transformer network (a sequence to sequence

translator architecture used for language models and computer vision), specifically developed to train from large quantities of unlabeled text using

unsupervised learning.

analyzing patterns in the data set to generate human-like text in response to input.

LLMs need access to large datasets of text called training data. Such data come from a variety of sources including books, articles, websites, academic papers, social media posts, blogs, news articles, and other online and offline text sources — without any explicit supervision or guidance on what to learn, except to automatically discover patterns and relationships in the data and use them. ChatGPT uses this data to generate more natural-sounding text.

#### THE HUMAN ASPECT

While there are many positive opportunities

presented by ChatGPT, ongoing debates in the tech community center on the threats posed by the larger AI. ChatGPT is indeed revolutionary, but it also gave us a taste of the real risks and dangers.

Some of these hot topics relating to the human aspect include social manipulation, job losses, social surveillance, gender and race biases, socio-economic inequality, weakening ethics and goodwill, financial crises, and a dangerous arms race of AI-powered weaponry.

#### **RESPONSE BIASES**

ChatGPT responses can be categorized into those that are mathematically or scientifically accurate, i.e., the answer to 1 + 1, or that water is liquid at room temperature. The other category consists of subjective responses, i.e., whether red is a better color than maroon, or whether certain politicians are performing better than their predecessors.

It is worth noting that there have been concerns about the potential biases in the training data sets used for language models like ChatGPT. Biases in the data can lead to biased outputs, which could have negative consequences in real-world applications. ChatGPT, just like humans, can still provide subjective, inaccurate, or wrong answers that are biased. When these biases cross ethical boundaries because of the quality and manual curation of the training data, this means that such biases can sometimes cause more societal harm than good.

#### **BUSINESS APPLICATIONS**

Rest assured, ChatGPT (and AI) will be here to stay, continuing to evolve and advance at lightspeed. It will continue to highlight that the world we live in will be significantly different as early as next year. Many businesses are scrambling to understand both the implications and opportunities provided by ChatGPT to their organizations.

ChatGPT as applied in business could, in a lot of ways, improve the bottom line, enhance efficiency, and transform customer experience while reducing costs. Some use case examples for ChatGPT are chatbots, content creation, code development, fraud and abnormality detection, language translation, voice assistants, and hyper-personalization for recommendation engines. There are also potentially vast opportunities, along with accompanying risks, in sectors such as education, creative services, professional services, content creation, and many others.

Many more technically adept companies are already finding amazing use cases of Chat-GPT and AI that end up disrupting traditional businesses.

### TRANSFORMING THE FUTURE THROUGH AI

There is no doubt that ChatGPT is still in its infancy stage, which simply means that there is much more to expect. Our lives will change, and the rapid rate of this change will be like no other compared to all human history. Just like electricity and water, ChatGPT is also expected to become a mainstream utility. It will be much faster, cheaper, more accurate, and eventually, some even say it will be sentient. It will become a necessary and unavoidable part of our daily lives.

According to a report from Opus Research, 35% of consumers would like to see more enterprises incorporate AI tools like chatbots, whereas 48% of them are indifferent as to whether an AI or a human were to assist them. While not the majority, a considerable percentage of people are seeing the benefits of AI. As this technology only continues to get better, many jobs and traditional businesses will need to transform or be at risk of being displaced. Industries and processes will be disrupted, and new opportunities and applications will surface. The only question will be: are we ready for it?

In the second part of this article, we discuss the practical ways ChatGPT can be used in business and the potential risks it presents.

This article is for general information only and is not a substitute for professional advice where the facts and circumstances warrant. The views and opinions expressed above are those of the author and do not necessarily represent the views of SGV & Co.

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