

KEMENTERIAN TENAGA, SAINS, TEKNOLOGI, ALAM SEKITAR DAN PERUBAHAN IKLIM

Bil	Berita	Media	Capaian Berita Penuh
24 SEPTEMBER 2018 (ISNIN)			
1.	<u>Look East or look within</u> Just ask Yeo Bee Yin, our impressive minister of energy, green technology, science, climate change and environment; she didn't need incentives to come home to serve her country.	Free Malaysia Today	Klik pada tajuk berita
23 SEPTEMBER 2018 (AHAD)			
2.	<u>Selangor govt to meet minister over Jenjarom plastic dumping sites</u> "We will be meeting her tomorrow," he said, referring to the Energy, Technology, Science, Climate Change and Environment Minister Yeo Bee Yin.	Free Malaysia Today	Klik pada tajuk berita
22 SEPTEMBER 2018 (SABTU)			
3.	<u>Yeo: Govt to seek middle ground on PIL 1</u> The government will try and seek a middle ground on the Penang Island Link (PIL) 1 project although any decision is not likely to make everyone happy, said Energy, Science, Technology, Environment and Climate Change Minister Yeo Bee Yin	The Star	Rujuk lampiran 1 atau klik pada tajuk berita
4.	<u>Penang Forum: State does not need LRT service</u> In another development, Lim said that the majority of civil society activists were unhappy with the stand taken by Energy, Science, Technology, Environment and Climate Change Minister Yeo Bee Yin, who reportedly gave a non-committal answer after attending a townhall session on the master plan on Thursday.	The Sun Daily	Klik pada tajuk berita

5.	<u>Wong Tack hits back at Aussie High Commissioner over Lynas</u> “I know the process of setting up the executive committee to investigate Lynas by the Minister of Energy, Science, Technology, Environment and Climate Change is already in the final stage and should materialise within days.	The Star	Klik pada tajuk berita
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TEMPATAN

Bil	Berita	Media	Capaian Berita Penuh
24 SEPTEMBER 2018 (ISNIN)			
6.	<u>Banks for sustainable development</u> Take the case of climate change. The first assessment report released by the Intergovernmental Panel on Climate Change warning about global warming was issued in 1990.	New Straits Times	Rujuk lampiran 2
7.	<u>Penyedut minuman plastik bukan hal kecil</u> Menyedari usaha menghalang penggunaan plastik secara total adalah sesuatu yang sukar, maka pencinta-pencinta alam global mula menggesa larangan penggunaan barangan tertentu.	Kosmo	Rujuk lampiran 3
8.	<u>Platform menarik popularkan pembelajaran sains</u> Festival Sains Petrosains kembali lagi dengan tema Kembara ke Masa Hadapan dan Terokai Kehebatan Sains.	Harian Metro	Rujuk lampiran 4
10.	<u>A brilliant rebound</u> Initially, GGS only traded biomass products. But it soon expanded and took to processing and producing its own products.	The Star	Rujuk lampiran 5 atau klik pada tajuk berita

11.	<u>Green energy source going to waste</u> The government plays an important role in promoting biomass as part of the alternative energy mix. It has identified the biomass industry as a crucial driver in catalysing Malaysia's shift towards sustainable development and a low-carbon economy.	The Star	Rujuk lampiran 6 atau klik pada tajuk berita
23 SEPTEMBER 2018 (AHAD)			
12.	<u>Harga minuman naik?</u> "Semua sedia maklum, straw mudah terurai terdiri daripada bahan agak mahal, saya bimbang peniaga tidak mahu menyerap kos straw berkenaan kemudian mengalihnya kepada pengguna.	Harian Metro	Rujuk lampiran 7 atau klik pada tajuk berita
22 SEPTEMBER 2018 (SABTU)			
13.	<u>Kerjasama telekomunikasi, utility</u> Persidangan Industri Bekalan Tenaga Elektrik (CEPSI) 2018 selama tiga hari yang melabuhkan tirainya pada Khamis, turut menyaksikan kalangan lebih 2,000 delegasi mengakhiri penyertaan mereka dengan membawa pulang pelbagai impak positif.	Utusan Malaysia	Rujuk lampiran 8 atau klik pada tajuk berita
14.	<u>CEPSI 2018 tarik 4,586 pengunjung</u> "Pameran tersebut juga membuka peluang kepada vendor TNB dan kontraktor bumiputera mempamerkan perniagaan, perkhidmatan dan produk masing-masing ke tahap yang lebih tinggi", menurut TNB.	Utusan Malaysia	Rujuk lampiran 9
15.	<u>CEPSI 2018 platform terbaik</u> Pengarah Urusan Tenaga dan Utiliti Accenture, Azrin Firdaus Osman berkata, lebih-lebih lagi topik-topik yang diketengahkan Tenaga Nasional Berhad (TNB) selaku penganjur dalam per-sida-ngan itu sangat relevan dan bertepatan dengan kehendak semasa serta keperluan masa hadapan.	Utusan Malaysia	Rujuk lampiran 10 atau klik pada tajuk berita

16.	<u>Akses elektrik di Asia Tenggara diperluas</u> “Kajian penyelidikan ini akan menumpukan terutama kepada algoritma bagi mengawal mikrogrid kerana kami membangunkan unit pemantauan yang canggih.	Utusan Malaysia	Rujuk lampiran 11
17.	<u>CEPSI 2018 ends on positive note</u> As the three-day Conference of Electric Power Supply Industry Conference (CEPSI) 2018 closed on Thursday, 2,000 or more delegates ended their participation with many positive takeaways.	New Straits Times	Rujuk lampiran 12
18.	<u>Industri perlu kreatif fikir kaedah ganti straw plastik</u> Pihak industri perlu kreatif dalam usaha mengenal pasti penggantian straw plastik supaya larangan penggunaan bahan itu di Wilayah Persekutuan mulai 1 Januari 2020 tidak menimbulkan masalah kepada pengguna.	Berita Harian	Klik pada tajuk berita

ANTARABANGSA

Bil	Berita	Media	Capaian Berita Penuh
24 SEPTEMBER 2018 (ISNIN)			
19.	<u>Humans preferred over robots</u> Car industry employees concerned that robots will put them out of work needn't worry – at least for now.	The Star	Rujuk lampiran 13
20.	<u>Solar vehicles replacing bush taxis</u> Hi-tech, cheap – and quiet. The Ivorian resort of Jacqueline, just outside the city of Abidjan, is betting on solar-powered three-wheelers as it looks to replace traditional but noisy and dirty bush taxis.	The Star	Rujuk lampiran 14

21.	<u>Tornado causes mass outages in Ottawa</u> Hundreds of thousands of people were stranded without power in and around the Canadian capital after a tornado touched down twice, destroying houses and ripping the roots off others.	Malay Mail	Rujuk lampiran 15
22.	<u>Google shrugs off trade war at Shanghai AI event, says partnering with China on talent ecosystem is key</u> It included the goals of building a domestic AI industry worth about US\$150 billion and to make the country an “innovation centre for AI” by 2030.	South China Morning Post	Klik pada tajuk berita
23 SEPTEMBER 2018 (AHAD)			
23.	<u>Asia must build better, say experts</u> Population growth, rapid urbanisation and unfettered development of coastal areas in the Asia-Pacific region are increasing the risk of heavy damage from powerful typhoons, experts said.	The Star	Rujuk lampiran 16 atau klik pada tajuk berita
24.	<u>‘Climate change is as much an opportunity as it is a problem’</u> The floods in Kerala were an absolutely shocking example of how we are already seeing the devastating impact of climate change, says Erik Solheim, head of UN Environment.	The Hindu	Klik pada tajuk berita
25.	<u>Making the world a better place with artificial Intelligence</u> If you thought “the unlikeliest set up to a joke”, you’re not entirely wrong. However, the answer I was looking for, is artificial intelligence (AI).	The Star	Klik pada tajuk berita
26.	<u>Tackling climate change to be key talking point at UN summit</u> With global temperatures rising, superstorms taking their deadly toll and a year-end deadline to firm up the Paris climate deal, leaders at this year’s U.N. General Assembly are feeling a sense of urgency to keep up the momentum on combating climate change.	Washington Post	Klik pada tajuk berita

22 SEPTEMBER 2018 (SABTU)			
27.	<u>'Need to look at biz solutions to cater to climate change'</u> FICCI in partnership with European Business and Technology Centre (EBTC) and Business Beyond Borders (BBB) organized the event- "India and EU – Co-Creation of Projects in alignment with Sustainable Development Goals (SDGs) on Clean Energy and Climate Change" here on Friday.	Millennium Post	Klik pada tajuk berita
28.	<u>California to limit use of plastic straws</u> California restaurants will soon stop providing plastic straws unless customers explicitly ask for them, under a new law signed by the state's environment-friendly governor.	The Star	Rujuk lampiran 17

LAMPIRAN 1

THE STAR (NATION): MUKA SURAT 12
TARIKH: 22 SEPTEMBER 2018 (SABTU)

Yeo: Govt to seek middle ground on PIL 1

GEORGE TOWN: The government will try and seek a middle ground on the Penang Island Link (PIL) 1 project although any decision is not likely to make everyone happy, said Energy, Science, Technology, Environment and Climate Change Minister Yeo Bee Yin.

"I am taking a cue from the Prime Minister who says that when a decision is made, no one will be happy. But in this case, we will try to seek a middle ground," she said during a town hall session on the PIL 1 at the Setia Spice Convention Centre in Bayan Lepas on Thursday.

Yeo said there was a grey area over the proposed project but ultimately, it would be for a better transport system in Penang.

Despite strong opposition from the civil society groups and non-governmental organisations, the project is expected to be approved.

The proposed 19.5km PIL 1 will meander along the foothills of Penang Hill from Gurney Drive to Penang International Airport.

LAMPIRAN 2
NEW STRAITS TIMES (OPINION): MUKA SURAT 15
TARIKH: 24 SEPTEMBER 2018 (ISNIN)



ZAKRI ABDUL
HAMID

CORPORATE RESPONSIBILITY

BANKS FOR SUSTAINABLE DEVELOPMENT

Business operations depend on biodiversity and ecosystem services; biodiversity loss is likely to have a significant negative impact on business operations



An Adelie penguin standing atop a block of melting ice near the French station in East Antarctica. The first report on climate change warning was issued in 1990, but it took the global community a quarter of a century to respond to this existential threat. REUTERS PIC

GIVEN that two thirds of worldwide finance is conducted by banks, that industry can be instrumental in achieving the vision laid out in the two groundbreaking global agreements — the UN Sustainable Development Goals (SDGs) and the Paris Climate Accord — agreed upon by world leaders in 2015.

It is gratifying and encouraging, therefore, to see banks stepping up to take a leadership role as members of the United Nations Environment Finance Initiative (UNEP FI), which to date involves more than two dozen banks from five continents and 19 countries managing some US\$16 trillion (RM66.12 trillion) in assets.

And proudly we noted late last month the latest addition to the club: Malaysia's CIMB Group Holdings Bhd, the first participating bankers from the Asean region.

On the agenda for the core group is the development of Principles for Responsible Banking, which are being drafted in consultation with other UN bodies, the wider industry, banking regulators, civil society organisations, and others.

The goal is to redefine banks' purpose and business model to align with the SDGs and Paris Climate Accord, both of which have set ambitious targets.

The global banking principles will:

DIRECT banks' efforts to align

with society's goals as expressed in the SDGs, the Paris Agreement, as well as national and regional frameworks, and set the global benchmark for sustainable banking;

DRIVE ambition by requiring signatory banks to set goals for and report on their contribution to national and international social, environmental and economic targets;

ENSURE accountability and transparency on banks' impacts; and

CHALLENGE the banking industry to play a leading role in creating a more sustainable future.

The first in-person meeting of banks participating in the drafting process took place in London in April; the principles will be launched for global consultation at a UNEP FI Global Roundtable on Nov 26 in Paris.

This is the latest work by the UNEP FI, which was created after the 1992 Earth Summit to promote sustainable finance. Today, more than 200 financial institutions, including banks, insurers, and investors are taking part.

The UNEP FI initiative also works to foster country-level dialogues and promotes financial sector involvement in processes such as the global climate negotiations.

In the words of the Executive Director of UN Environment, Erik

Solheim: "UN Environment's Finance Initiative has been working for 25 years to bridge the gap between global finance institutions and the environmental agenda, so that both people and planet can flourish. We've worked with leading banks, investors and insurers, forging partnerships and steadily helping to move the markets. We've now reached a place where greening finance, and financing a green economy, are no longer seen as optional, but rather as best practice."

These are indeed positive developments. Progress has been painfully slow. It took us a long time to fully realise and accept that human activities over the last 100 years have been threatening the long-term liveability of our planet.

Take the case of climate change. The first assessment report released by the Intergovernmental Panel on Climate Change warning about global warming was issued in 1990. It took the global community a quarter of a century to come together in the form of the Paris Agreement to strengthen the global response to this existential threat.

In the case of biodiversity — which is the basis of our food, medicines, fuel and livelihoods — we are nowhere near the global targets of conserving and sustainably using it as enshrined in

the UN Convention on Biological Diversity. Businesses play a decisive role.

Business operations depend on biodiversity and ecosystem services, and biodiversity loss is therefore likely to have a significant negative impact on business operations.

The case for sustainable development is much more complex. Living within our environmental limits is one of the central principles of sustainable development. Two consequences of not doing so are global warming and biodiversity loss.

But the focus of sustainable development is far broader than just the environment. It's also about ensuring a strong, healthy and just society. This means meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity.

This is why the initiative taken by the CIMB Group is laudable. We hope more leaders in the corporate world would follow suit.

The writer, a senior fellow of the Academy of Sciences Malaysia, is a member of the Global Leadership Council of the UN Sustainable Development Solutions Network and the Chairman of its Malaysian chapter

... the focus of sustainable development is far broader than just the environment. It's also about ensuring a strong, healthy and just society.

LAMPIRAN 3
KOSMO (NEGARA): MUKA SURAT 11
TARIKH: 24 SEPTEMBER 2018 (ISNIN)

Penyedut minuman plastik bukan hal kecil

GEJALA pencemaran plastik sebenarnya sangat meresahkan dunia pada masa ini sehingga pakar alam sekitar menjangkakan jika hal itu tidak dibendung pada tahun 2050 kelak, jumlah bahan tersebut di lautan akan menjadi lebih banyak daripada ikan.

Menyedari usaha menghalang penggunaan plastik secara total adalah sesuatu yang sukar, maka pencinta-pencinta alam global mula menggesa larangan penggunaan barangan tertentu.

Straw plastik juga menjadi fokus golongan pencinta alam sekitar supaya dikehendaki penggunaannya.

Fakta bahawa penyedut minuman plastik yang diperbuat daripada polipropilena itu memerlukan 200 tahun untuk terurai dan penguraianannya melepaskan bahan toksik memperkukuhkan alasan larangannya.

Pengguna boleh menyemak mana-mana laman internet berhubung alam sekitar ternyata straw plastik menjadi isu besar alam sekitar yang semakin rancak diperkatakan sejak awal tahun ini. Pada bulan lalu, Seattle menjadi bandar utama pertama di Amerika Syarikat (AS) mengeluarkan larangan penggunaan straw plastik.

Rangkaian kafe, Starbucks juga baru-baru ini mengumumkan untuk menghentikan penggunaan straw plastik pada tahun 2020 dan McDonald's telah mengumumkan pengharaman straw plastik untuk restoran-restorannya di Britain dan Ireland.

Dilaporkan sebanyak 8.3 bilion straw plastik mencemari pantai-pantai di seluruh dunia dan rakyat Malaysia menggunakan 31 juta penyedut minuman itu setiap hari yang lazim ditemui pada hampir semua minuman sejuk.

Stesen televisyen CNBC di AS melaporkan, straw plastik mungkin dilihat sesuatu yang kecil, ringkas atau remeh tetapi daripada konteks alam sekitar ia disifatkan sebagai satu kontroversi yang besar.

Seorang pakar biologi marin di AS, Ayana Elizabeth Johnson berkata kepada CNBC baru-baru ini, straw plastik semakin mendapat perhatian kerana ia bukan sesuatu yang kita perlukan dalam kehidupan.



Di Sebalik Isu Panas

Oleh ADHAM SHADAN

"Straw plastik merupakan salah satu daripada lima barangan yang kita biasa temui di laut, jadi ia adalah satu isu besar. Straw plastik benar-benar menyumbang besar kepada pencemaran terutamanya apabila ia akhirnya hanyut masuk ke laut.

Jika kita terus melakukan pencemaran ini, kita akan mempunyai lebih banyak plastik daripada ikan di laut pada 2050

"Jika kita terus melakukan pencemaran ini, kita akan mempunyai lebih banyak plastik daripada ikan di laut pada 2050," katanya.

Pada minggu lalu, Kementerian Wilayah Persekutuan mengumumkan larangan penggunaan straw plastik di semua kedai dan restoran makanan di Kuala Lumpur, Putrajaya dan Labuan mulai Januari tahun depan.

Tindakan penguatkuasaan akan diambil bermula tahun 2020 selepas pengguna terutamanya peniaga diberi kesedaran mengenai bahaya penggunaan produk berasaskan plastik.

Penasihat Bahagian Pendidikan Alam sekitar, Persatuan Pencinta Alam Malaysia, Prof. Dr. Ahmad Ismail berkata, pengharaman itu bertepatan memandangkan Malaysia merupakan penyumbang kelapan pencemaran plastik dunia.

"Seluruh dunia bercakap tentang pencemaran plastik. Pencemaran plastik sudah mendapat perhatian Pertubuhan Bangsa-Bangsa Bersatu (PBB).

"Seluruh rakyat Malaysia pa-

tut menyokong langkah pengharaman ini," katanya ketika dihubungi Kosmo! baru-baru ini.

Ahmad menerangkan, penggunaan bahan plastik seperti straw dan beg plastik menyebabkan pencemaran bahan kimia, penyumbatan longkang dan seterusnya masuk ke laut membunuh hidupan seperti penyu, burung laut dan ikan yang akhirnya memberi kesan kepada manusia.

"Straw plastik mengambil masa 200 tahun untuk mereput dan kira-kira 30 juta straw plastik sehari digunakan rakyat Malaysia. Berapa tan yang kita buang ke laut sehari?"

"Rakyat kena tahu sejauh manakah mereka menyumbang kepada pencemaran plastik terhadap alam sekitar," katanya.

Sementara itu, Ketua Pegawai Eksekutif Persatuan Ekopelancongan dan Konservasi Malaysia (ECOMY), Andrew Sebastian turut menyokong penuh larangan itu.

"Pencemaran plastik adalah salah satu masalah utama tamadun manusia yang dihadapi pada zaman sekarang.

"Harus difahami bahawa ini masalah dunia dan manusia. Kita semua harus bersama-sama mempunyai wawasan untuk menanganinya," katanya.

Sebastian berkata, straw plastik bukanlah suatu yang diperlukan manusia sejak dulu lagi tetapi ia baru wujud dalam tempoh beberapa puluh tahun lalu.

"Manusia sangat bijak dan jika kita boleh mencipta straw daripada plastik, kita juga pasti mampu mencari alternatif lain yang lebih baik, mesra alam dan tidak memudaratkan kesihatan kita serta alam sekitar," katanya.



GAMBAR Gunung Anak Krakatau meletup dan mengeluarkan lahar ketika dirakam dari sebuah helikopter Jepun di Kepulauan Cagar Alam Krakatau, Indonesia kelmarin.

LAMPIRAN 4
HARIAN METRO (BESTARI): MUKA SURAT 27
TARIKH: 24 SEPTEMBER 2018 (ISNIN)



PLATFORM MENARIK POPULARKAN PEMBELAJARAN SAINS

Festival Sains Petrosains kembali lagi dengan tema Kembara ke Masa Hadapan dan Terokai Kehebatan Sains.

Pengerusi PETRONAS Datuk Ahmad Nizam Salleh berkata, festival itu antara inisiatif utama Petrosains untuk mempopularkan pembelajaran sains melalui platform yang menarik, berteraskan pendidikan dan berimpak tinggi.

Katanya, ia adalah sebahagian daripada komitmen Petrosains untuk memupuk pembelajaran sains, teknologi, kejuruteraan dan matematik (STEM) yang

lebih bermakna.

"Tema Kembara ke Masa Hadapan dan Terokai Kehebatan Sains mencerminkan semangat dan aspirasi Petrosains untuk bergerak maju seiring dengan Revolusi Industri 4.0

"Melalui festival ini, Petrosains berharap dapat berkongsi dengan pengunjung berkenaan ilmu sains dan kemungkinan masa hadapan," katanya pada majlis pelancaran di Esplanade, KLCC Park, baru-baru ini.

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LAMPIRAN 5

THE STAR (SMEBIZ): MUKA SURAT 7

TARIKH: 24 SEPTEMBER 2018 (ISNIN)



New revenue stream: GGS has obtained four licences for biomass-to-energy and biogas-to-energy projects.

A brilliant rebound

Biomass products manufacturer came out of the pit and onto the world stage

By C.H. GOH
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AROUND 12 years ago, Datuk Joseph Lim Heng Ee had the biggest setback in his career as an entrepreneur. Due to a lack of trust over how the company's funds were managed, Lim was forced out from a biomass business he co-founded with two other partners.

"Our first venture into the biomass industry, converting palm oil waste into long dry fibre, was doing well. We exported around 30 container loads every month. All was well until greed took a toll on the partnership," said Lim of those bitter lessons from his earlier days in business.

Depressed with the treatment he had received, Lim became reclusive and withdrew from the business world. But an advice from his wife prompted him to bounce back with new determination.

Leveraging on his network and experience, he muscled his way back into the business he lost.

He forged a new alliance with his business partner Ngan Teng Ye from Ngan & Ngan Holdings – an investment holdings company with interest in oil palm plantation and mills – and together, they formed Global Green Synergy (GGS) in 2008. The company took up an investment of RM3mil.

Ngan is the eldest son of the late oil palm plantation tycoon Tan Sri Ngan Ching Wen. Initially, GGS only traded biomass products. But it soon expanded and took to processing and producing its own products.

As GGS' managing director, Lim has become a well-known figure in the green business scene, having built up his reputation as a pioneering biomass company which focuses on turning palm waste into revenue-generating bio-products.

The company mainly converts palm oil waste (biomass) into palm fibre, palm pellet and other palm-related products. It also makes the machines that produce these products.

Meanwhile, Ngan & Ngan Holdings provides a steady supply of raw materials for GGS' biomass business, says Lim.

GGS exports up to 100 containers of dry fibre per month.

Around 99% of GGS' products are exported to China.

North Asia, particularly Hong Kong and China, is also a market where Lim has established strong network and partnerships that play a key role in the company's growth story.

Lim is an admirer of the creativity and dynamism of small but vibrant economies such as Hong Kong.

With his established contacts in these markets, Lim managed to ride on the growing appetite for environmental technology ventures in the largest Asian economy. One example is its partnership with China's Elion Resources Group which secured the RMB1bil project to green the Kubuqi Desert in Inner Mongolia. GGS also tied-up with Chinalight (Guangzhou) Import & Export Corp in 2013 to supply biomass pellets.

Back in 2013, the company also set up a joint venture with the Malaysia Palm Oil



Resourceful: After a period of absence, Lim muscled his way back into the business through his network.

Board to produce palm bio-briquette that can be used as biofuel.

Now the company prides itself as the first in the country to manufacture bio-charcoal, through a carbonisation technology it invented. Having built a track record in the biomass business, GGS was chosen to partner Japan's Sumitomo Corp and Nippon Steel Engineering in the production of biofuel products in Perak.

Eying lucrative biomass products

Lim's exposure to the business world started young. He had joined his father's plastic factory after graduating from Chung Hwa Chinese Independent High School in Kuala Lumpur. That seemed a likely path for him to

continue on.

However, a visit to a palm oil mill changed his outlook and career path.

Upon seeing the massive environmental devastation brought about by indiscriminate dumping of palm waste, the young Lim was determined to enter the green business.

Lim never quite forgot his purpose for being in the industry.

In GGS, he looked into the development of many new technologies to help the global palm oil processing industry reduce CO2 emissions and create renewable energy from its waste.

The company has carried out numerous research efforts to come up with suitable solutions. Over the last 10 year, the company has invested around RM20mil to research

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LAMPIRAN 5 (SAMBUNGAN)
THE STAR (SMEBIZ): MUKA SURAT 8
TARIKH: 24 SEPTEMBER 2018 (ISNIN)

Vast potential in renewables

> FROM PAGE 7

and develop new product lines.

But Lim has set his sight on the ultimate prize when it comes to biomass business. There are plans to diversify into higher value downstream products by turning fresh fruit bunch waste into paper pulps.

There are not many companies that have been successful on this front, mainly due to the lack of technology or scale.

But given the sheer size of the market and growing demand for sustainably sourced papers, Lim sees this as one of the most lucrative biomass products.

"We have invested extensively in R&D, with a six person research team dedicated to complete all the necessary research and technologies to make this product. The business feasibility study is the last step, and it will be completed before the end of this year," says Lim.

Renewable energy

With the successes that it has achieved, GGS has now caught the attention of major corporations and investors. But the partners are not interested to sell any portion of their stakes.

Rather, they are thinking of listing the company in one or two years' time after registering a solid track record in profitability. GGS

only became profitable in 2012.

However, GGS has received approaches from investors interested to invest in its biomass renewable energy (RE) projects, the company's latest foray in the biomass industry. Lim welcomes any queries from interested parties for this segment.

He notes that most investors prefer to have a majority control in projects such as these, but there is a restriction under Malaysia's regulation which requires local players to hold at least 51% stake in the company to qualify for the feed-in-tariff (FIT) system.

The FIT system obliges Distribution Licensees to buy electricity produced by Feed-in Approval Holders from renewable resources. Distribution Licensees will also pay for renewable energy supplied to the electricity grid for a specific duration.

According to the Sustainable Energy Development Authority (SEDA), by guaranteeing access to the grid and setting a favourable price per unit of renewable energy, the FIT mechanism would ensure that renewable energy becomes a viable and sound long-term investment.

GGS has obtained four licences for biomass-to-energy and biogas-to-energy projects, with total production capacity of up to 12MW. The first one, with capacity for three MegaWatt is expected to come onstream by the end of this year.



Generating wealth from waste: The company converts palm oil waste (biomass) into palm fibre, palm pellet and other palm-related products.

It has signed a 16-year power purchase agreement with SEDA.

Lim says the company's revenue for 2018 is expected to reach RM35mil, while next year's revenue is projected to surge to RM50mil with additional contribution coming in from the RE division.

Finding the right formula to be profitable in the biomass and eco-friendly business is

never easy, as most of the technologies are at the early stage of adoption, making costs uncompetitive. Additionally, the market size is relatively small.

Lim, however, believe the company is beginning to get traction in an industry that is widely viewed as the business of the future and he hopes to inspire others to adopt green practices in their businesses too.

LAMPIRAN 6
THE STAR (SMEBIZ): MUKA SURAT 8
TARIKH: 24 SEPTEMBER 2018 (ISNIN)

Green energy source going to waste

BEING a major agricultural commodity producer in the region, Malaysia produces at least 168 million tonnes of biomass, including timber and oil palm waste, rice husks, coconut trunk fibres, municipal waste and sugarcane waste annually.

This puts the country in a good position to promote the use of biomass as a renewable energy source.

Among the various agricultural waste we produce, oil palm has always been seen as the core agro-based biomass that can provide the scale needed to make it a viable business. With more than five million hectares of land under oil palm plantation, oil palm waste, by far, constitutes the largest share of agro waste. Over 75% of total planted area are located in just four states – Sabah, Sarawak, Johor and Pahang.

This is certainly a good opportunity to exploit for Global Green Synergy managing director Datuk Joseph Lim Heng Ee.

Lim and his partner set their sight on the “clean and green” renewable energy (RE) initiative after noticing the millions of tonnes of biomass palm residues – empty fruit bunches and fibres – that are left to rot at the plantations, which harm the environment as they release the greenhouse gas methane.

“We have an abundant supply of biomass. Biogas, or biomass from wastes, is a major part of solid waste from many sources which is biodegradable. When there is biodegradation, the major portion of it is biogas,” says Lim. For Lim, building biomass and biogas boilers seemed a logical next step, particularly to complement the oil palm plantation arm of its partner, Ngan & Ngan Holdings.

However, not as many players are actively tapping this source of renewable energy. A large amount of these wastes go unutilised. It was once said that “millions of ringgit are going down the drain due to the wastage of biomass and biogas potential resulting from palm oil mill effluent”.

The government plays an important role in promoting biomass as part of the alternative energy mix. It has identified the biomass industry as a crucial driver in catalysing Malaysia's shift towards sustainable development and a low-carbon economy.

In the National Biomass Strategy 2020 blueprint launched in 2011, Malaysia is projected to produce up to 80 million tonnes of biomass annually by 2020, creating business opportunities worth billions. Palm biomass is seen as contributing RM30bil to the gross national income (GNI) by 2020.

The Department of Environment and the



Untapped opportunity: With more than five million hectares of land under oil palm plantation, oil palm waste constitutes the largest share of agro waste in the country. — Bloomberg

Malaysian Palm Oil Board have set stringent environmental targets, a push factor for the industry to move towards stricter waste management. However, the industry notes that execution of policy lacks coherence.

Additionally, support from the industry is not forthcoming.

Palm oil mills do not see biogas as a worthwhile investment as most mills prefer to harness biomass as a cheaper alternative for bioenergy. Additionally, mills tend to lack grid access while those that have access find the feed-in-tariff (FIT) rates unattractive given the heavy initial investments required.

It seems more economical for mills to export them as biomass fibre.

There needs to be better enforcement and,

perhaps, a review of some of the related policies to promote more biogas or biomass energy development.

To see how far Malaysia can go with its renewable energy industry, observers point to Thailand as an example.

Thailand produces around 2,200MW or almost 7% of its total national electricity generation from biomass sources. This compares with Malaysia's less than 100MW, or 0.6% of its electricity generation in 2013.

If done right, Malaysia can have the capacity to catch up to Thailand as the leading producer of renewable energy in the region by harnessing the abundant by-products from the country's palm oil industry. — C. H. GOH

ThinkTank
2 October 2018
New World
Petaling Jaya Hotel

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Fong Wai Hong
Chief, Storehub
SME's Readiness
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LAMPIRAN 7

HARIAN METRO (SETEMPAT): MUKA SURAT 14

TARIKH: 23 SEPTEMBER 2018 (AHAD)

METRO AHAD

■ **FOMCA risau straw mudah urai agak mahal**

Kuala Lumpur

Penggunaan straw mudah terurai menggantikan straw plastik boleh menyebabkan kemungkinan harga minuman naik.

Timbalan Presiden Gabungan Persatuan Pengguna Malaysia (FOMCA), Mohd Yusof Abdul Rahman berkata, penghapusan straw plastik demi menjaga alam sekitar adalah langkah baik namun pihaknya bimbang alternatif lain itu boleh menyebabkan harga minuman meningkat.

"Semua sedia maklum, straw mudah terurai terdiri daripada bahan agak mahal, saya bimbang peniaga tidak mahu menyerap kos straw berkenaan kemudian mengalihnya kepada pengguna."

"Kesannya menyebabkan pengguna juga yang terbeban, jadi saya fikir pihak berwajib perlu mencari penyelesaian terlebih dahulu daripada membuat keputusan penghapusan secara drastik," katanya ketika dihubungi Metro Ahad.

Menurutnya, langkah penghapusan straw adalah antara inisiatif terpuji dan wajar disokong semua pihak,

HARGA MINUMAN NAIK?

namun pihaknya mahu pihak berwajib mencari penyelesaian jangka panjang demi kesenangan pengguna. "Mungkin juga sebaik perkara ini dilaksanakan, peniaga boleh memberi pilihan kepada pengguna sama ada mahu menggunakan straw atau tidak."

"Jika mahu menggunakan straw untuk minum, mereka perlu berdepan dengan harga berbeza berbanding tiada straw, seperti yang dilakukan ketika ini apabila pengguna perlu membayar 20 sen untuk menggunakan plastik beg," katanya.

Bagi Presiden Persatuan Peniaga dan Penjaja Bumiputera Wilayah Persekutuan Kuala Lumpur (PPPBWPKL) Datuk Seri Rosli Sulaiman berkata, dia bersetuju dengan langkah penghapusan straw berikutan ia meninggalkan impak yang besar kepada alam sekitar.

“**Jika mahu menggunakan straw untuk minum, mereka perlu berdepan dengan harga berbeza**”
Mohd Yusof

"Kita sedia maklum, straw ini menyebabkan longkang dan sistem perparitan tersumbat kerana ia adalah bahan tidak boleh lupus."

"Saya lihat straw dicampak merata-rata menyebabkan longkang tersumbat dan kerajaan sepatutnya memulakan kempen menggunakan straw mudah terurai ini sejak sekian lama," katanya.

Akunya, penggunaan straw mudah terurai agak mahal dan boleh menyebabkan harga minuman naik memerlukan kerajaan

mencari penyelesaian terbaik untuk tidak membebaskan pengguna.

"Pengeluaran kilang untuk straw mudah terurai ini mungkin perlu diperbanyakan, saya yakin ia boleh menyebabkan harga straw berkenaan menjadi sedikit murah akibat persaingan tinggi."

"Walaupun sedikit mahal, ia mampu menjimatkan kos pelupusan sampah yang mungkin berjuta-juta perlu ditanggung kerajaan hanya disebabkan straw, jadi saya fikir pertimbangan kerajaan mungkin mewujudkan geran kepada peniaga untuk menyokong langkah penghapusan straw," katanya.

Pendapat sama turut dikongsi seorang ahli perniagaan, Hafiz Zainol Abidin, 30, yang berpendapat, usaha terpuji itu wajar disokong orang ramai namun jangan sampai membebaskan pengguna.

"Tidak wajar sekiranya pengguna dibebaskan pula dengan kenaikan harga minuman sekiranya menggunakan straw biodegradasi (mudah urai)."

"Mungkin pihak industri

perlu memikirkan jalan penyelesaian terbaik dan menggantikan alternatif lain supaya pengguna tidak terbeban," katanya.

Bagi eksekutif swasta, Jamie Georemie, 25, berpendapat sudah sampai masanya rakyat Malaysia memikirkan mengenai alam sekitar dan kitar semula dan menyokong langkah itu.

"Tetapi dalam kita menyokong jangan sampai membebaskan pengguna. Mungkin kita perlu mendidik rakyat Malaysia terlebih dahulu mengenai alam sekitar dan kitar semula," katanya.

Kuala Lumpur

Umpama perangkap maut. Itu yang boleh disimpulkan berhubung penggunaan bahan plastik terutamanya membabitkan industri pemakanan memandangkan bahan itu mampu untuk bertahan melebihi 500 tahun.

Bahan plastik itu tidak mudah untuk terurai menerusi proses semula jadi, malah lebih membimbangkan apabila bahan berkenaan bertukar menjadi 'mikro plastik' dan meresap ke dalam bumi atau termasuk dalam bahan makanan haiwan ternakan.

Akibatnya, manusia yang memakan haiwan ternakan yang dicemari bahan itu akan terdedah dengan pelbagai penyakit terutamanya meningkatkan risiko kanser.

Berdasarkan kajian saintis dunia juga sudah membuktikan bahawa plastik

'PERANGKAP MAUT'

■ **Straw tidak akan reput sampai 500 tahun**

tidak mampu untuk terurai secara semula jadi dan memerlukan bahan gantian lain seperti plastik mudah terurai (Bio-degradable).

Pengarah Institut Lautan dan Sains Bumi, Universiti Malaya (UM) Prof Madya Dr Sumiani Yusoff berkata, plastik biasa mampu untuk berada dalam persekitaran melebihi 500 tahun dan perkara itu sebenarnya sudah dibuktikan menerusi pelbagai kajian.

"Jika plastik ini mampu untuk terurai secara semula jadi ia masih tidak

sepenuhnya musnah sebaliknya bahan plastik itu akan bertukar menjadi mikro plastik dan meresap dalam bumi."

"Bahan mikro itu juga berkemungkinan besar untuk bercampur dengan bahan makanan akuatik sekali gus menjadi makanan ikan-ikan di lautan."

"Akibatnya, bahan mikro yang berada pada makanan kita akan sebar dengan tubuh manusia dan meningkatkan risiko penyakit terutamanya kanser," katanya.

Sumiani berkata, plastik memang murah dan ia menjadi pilihan sesiapa saja kerana sifatnya yang tahan lasak namun amat berbahaya buat alam sekitar termasuk kesihatan manusia.

Bagaimanapun, beliau berkata, perlu ada sikap kesedaran dalam masyarakat untuk menjaga alam sekitar dan menggunakan bahan plastik mudah terurai yang boleh didapati di pasaran.

"Memang diakui bahawa harga plastik mudah terurai ini agak mahal berbanding plastik konvensional namun

demi menjaga alam sekitar dan kesihatan kita, penggunaan plastik jenis itu sangat digalakkan."

"Jika kita lihat sekarang, pasar raya besar sudah mula memperkenalkan penggunaan plastik mudah terurai ini namun masih ramai yang tidak peka tentang alam sekitar."

"Kita masih boleh menggunakan plastik biasa tetapi bukan dalam aspek kegunaan harian dan pengeluarannya juga perlu dihadkan."

Mungkin saya boleh cadangkan bahawa plastik biasa digunakan secara berulang kali untuk mengawal pembuangan bahan itu," katanya.



LAMPIRAN 7 (SAMBUNGAN)
HARIAN METRO (SETEMPAT): MUKA SURAT 15
TARIKH: 23 SEPTEMBER 2018 (AHAD)

METRO AHAD

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Kuala Lumpur

Larangan penggunaan straw plastik bermula 1 Januari 2020, wajar disokong kerana ia bakal meninggalkan impak yang besar kepada alam sekitar. Pengarah Pusat Pelestarian Alam Sekitar dan Sumber Air (IPASA) Universiti Teknologi Malaysia (UTM), Prof Dr Azmiy Aris berkata, straw antara bahan plastik utama mencemari laut ketika ini. Katanya, walaupun bersaiz kecil, hampir setiap individu menggunakan straw setiap hari di seluruh dunia dan akan dibuang selepas sekali penggunaan, menyebabkan jumlahnya yang mencemari alam sekitar sangat tinggi. "Jika dilihat pencemaran oleh plastik, straw antara bahan yang memberi kesan besar kepada hidupan laut. "Kerana saiznya yang kecil, straw kerap ditemui

tercucuk pada penyu atau dalam badan hidupan laut lain. "Disebabkan itu, saya menyokong keputusan larangan penggunaan straw di Wilayah Persekutuan dan pengurangan penggunaan plastik secara keseluruhannya," katanya ketika dihubungi, semalam.

Keputusan kerajaan mengharamkan penggunaan straw plastik bermula 1 Januari 2020 mencetuskan polemik dalam kalangan pengguna, dengan sebahagiannya tidak menyokong kerana bahan itu kononnya kecil dan tidak memberi impak besar kepada pengurangan pencemaran, selain antara keperluan kepada individu tertentu. Straw plastik dikatakan sebagai penyumbang pencemaran alam sekitar berikutan penggunaan

jumlahnya yang tinggi, dengan rakyat Amerika Syarikat saja dianggarkan menggunakan 500 juta straw sehari. Satu kajian pula menganggarkan kira-kira 8.3 bilion straw plastik mencemari pantai di seluruh dunia. Sementara itu, pakar alam sekitar, Prof Dr Mohd Talib Latif berkata, straw dikenal pasti sebagai antara bahan yang mengganggu sistem ekologi kerana mencemari laut dan sungai serta memberi kesan kepada hidupan laut dan burung. Timbalan Dekan Fakulti Sains dan Teknologi Universiti Kebangsaan Malaysia (UKM) itu berkata, straw dan plastik adalah bahan bukan biodegradasi yang mengambil masa ratusan tahun untuk terurai. "Ada juga kajian menunjukkan straw yang terdedah dengan cahaya matahari dalam tempoh lama serta suhu seperti di negara kita boleh menguraikan straw ini dengan lebih cepat. "Bagaimanapun, pengurangan ini meninggalkan kesan negatif lain kerana straw akan membentuk bahan lain dikenali sebagai mikropartikel yang berbahaya kepada hidupan dan manusia. "Mikropartikel ini jika dimakan ikan dan ikan itu pula menjadi makanan manusia, ia akan kekal dalam badan manusia dalam tempoh lama dan dipercayai boleh menjejaskan kesihatan, termasuk kemungkinan mencetuskan kanser," katanya.

Mengenai penggunaan plastik biodegradasi, Adnan mengakui wujud pasar raya yang tidak jujur apabila hanya menggunakan produk mesra alam itu ketika DBKL melakukan operasi. "Saya mahu beri peringatan, jika ada penipuan seperti ini, kami akan ambil tindakan tegas. "Pengguna juga perlu desak pasar raya dan peniaga untuk berikan beg plastik biodegradasi jika mereka gunakan produk yang dilarang," katanya.

WAJAR DISOKONG

■ **Larangan penggunaan straw plastik bakal meninggalkan impak besar**

Agar larangan guna straw tidak membebankan pengguna

Ahmad Suhael Adnan dan Esther Landau
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Kuala Lumpur

Pihak industri digesa memikirkan kaedah untuk menggantikan penggunaan straw plastik supaya larangan penggunaan bahan itu bermula 1 Januari 2020 tidak menimbulkan masalah kepada pengguna. Ketua Setiausaha Kementerian Wilayah, Datuk Seri Adnan Md Ikshan berkata, pihak industri memiliki tempoh lebih daripada setahun untuk memikirkan kaedah bagi menggantikan straw plastik. "Pihak industri perlu kreatif untuk memikirkan bagaimana menggantikan straw plastik konvensional. Mereka ada masa lebih setahun. "Antara caranya, mungkin rekaaan kotak minuman ditukar dengan membuat lebih banyak muncung yang boleh dikoyak, atau menggunakan straw biodegradasi. "Ada yang marah kerana kononnya straw hanya perkara kecil, tapi bagi saya kita perlu lakukan apa saja yang mampu untuk alam sekitar tanpa mengira kecil atau besar," katanya pada sidang media Program Gotong-Royong Mega 2018 di PPR Seri Semarak di sini, semalam. Turut hadir, Timbalan Menteri Wilayah, Datuk Dr Shahrudin Md Salleh. Beliau mengulas pengurangan penggunaan straw plastik di Wilayah Persekutuan yang akan dikuatkuasakan bermula 1 Januari 2020 manakala

FIKIR KAEDAH LAIN

kempen kesedaran mengenai kesan negatif penggunaannya akan dilaksanakan sepanjang tahun depan. Ia sebahagian daripada inisiatif kerajaan untuk menghebadkan penggunaan produk plastik konvensional yang berasaskan hidrokarbon sejak 2016 dan mula dikuatkuasakan mulai 1 September tahun lalu. Menerusi penguatkuasaan berkenaan, pasar raya, peniaga dan penjaja di seluruh Wilayah Persekutuan tidak boleh menggunakan plastik bukan biodegradasi dan polisterin. Ketika ini, sekurang-kurangnya 14 bandar di dunia termasuk tujuh bandar di Amerika Syarikat (AS) sudah atau bakal melaksanakan larangan terhadap penggunaan produk plastik pakai buang termasuk straw. Antara yang sudah melaksanakan larangan termasuk Glasgow, Scotland; New Delhi, India; San Pedro La Laguna, Guatemala; California, AS manakala yang bakal melaksanakannya seawal tahun ini termasuk Vancouver, Kanada; Sikinos, Greece dan Neuchatel, Switzerland. Adnan berkata, DBKL sudah mengenakan kompaun kepada 200 premis yang ingkar terhadap larangan itu sejak ia dikuatkuasakan hingga bulan ini.

Ada yang marah kerana kononnya straw hanya perkara kecil
Adnan

LAMPIRAN 8
UTUSAN MALAYSIA (BISNES): MUKA SURAT 44
TARIKH: 22 SEPTEMBER 2018 (SABTU)

Kedua-dua industri berupaya jimatkan kos jika jalin pakatan

Kerjasama telekomunikasi, utiliti

■ KUALA LUMPUR 21 SEPT.

PERSIDANGAN Industri Bekalan Tenaga Elektrik (CEPSI) 2018 selama tiga hari yang melabuhkan tirainya pada Khamis, turut menyaksikan kalangan lebih 2,000 delegasi mengakhiri penyertaan mereka dengan membawa pulang pelbagai impak positif.

Paling ketara, mereka kini dapat menyelami perkembangan dialami industri bekalan elektrik (ESI), sejajar dengan tema CEPSI 2018 iaitu *Re-imagining Utility of the Future* (Imaginasi Semula Utiliti Masa Depan) apabila ramai pemimpin sektor itu berkongsi pandangan mengenai transformasi yang bakal melanda segmen itu dalam tempoh 10 hingga 20 tahun akan datang.

Namun, tema yang ternyata mencetuskan pandangan ramai adalah 'idea' pemusatan atau penumpuan industri tenaga dan telekomunikasi berikutan persamaan ciri yang berteraskan jaringan atau rangkaian yang padat bagi kedua-dua segmen berkenaan.

Ramai yang mengakui kedua-dua industri ini berupaya menikmati penjimatan kos yang besar jika pihak terbabit dapat

berbincang untuk sama-sama melakar kemajuan demi manfaat pelanggan serta kepentingan mereka.

Malah, beberapa penceramah pada persidangan itu berpendapat, kerjasama sedemikian sudah mula dilaksanakan di beberapa negara yang turut mengutamakan komuniti perniagaan.

Pada sesi utama *ESI Innovation and Smart Solutions* (Inovasi ESO dan Penyelesaian Pintar), Pengarah Urusan Accenture Digital (ASEAN) James Chong dan

Naib Presiden Segmen Tenaga Global Nokia, Kamal Ballout berkongsi pandangan bahawa langkah menjalin pakatan atau kerjasama antara syarikat tenaga dan telekomunikasi (telco), merupakan pendekatan untuk

terus mencatat kemajuan pada masa depan.

Mereka turut percaya, walaupun usaha mengurangkan kos menjadi antara proses terbabit, syarikat utiliti ini juga perlu berhati-hati terhadap perkhidmatan tambahan yang boleh dilaksanakan bagi memastikan perolehan tidak lenyap seiring dengan kemajuan teknologi.

Chong dan Ballout juga berpendapat, syarikat tenaga dan



telco sewajarnya meninjau bidang yang berpotensi menjana lebih banyak perniagaan menerusi kemudahan seperti *Internet of Things* dengan penyedia khidmat lain.

Ini penting bagi memastikan sinergi kerjasama itu dapat diterjemah dalam bentuk manfaat lebih baik bagi pembangunan bandar serta pen-

uduknya.

Ketua Pegawai Teknologi Huawei Technologies Co. Ltd. Paul Scanlan berkongsi dengan para peserta mengapa syarikat kuasa dan telekomunikasi akan lebih banyak berbincang untuk menentukan sinergi bagaimana membentuk kerjasama bagi manfaat pengguna pada masa depan.

Beliau menyimpulkan dengan memberi contoh kes pemasangan stesen asas telekomunikasi yang memerlukan input daripada syarikat telekomunikasi dan utiliti kuasa, dan jika kedua-duanya boleh bekerjasama, kos pemasangan akan turun dan seterusnya akan memberi manfaat kepada pengguna. - BERNAMA

LAMPIRAN 9
UTUSAN MALAYSIA (BISNES): MUKA SURAT 45
TARIKH: 22 SEPTEMBER 2018 (SABTU)

CEPSI 2018 tarik 4,586 pengunjung

KUALA LUMPUR 21 Sept. – Persidangan Industri Bekalan Tenaga Elektrik (CEPSI) 2018 bertemakan *Reimagining Utility of the Future*, yang melabuhkan tirainya semalam menarik kehadiran sebanyak 4,586 pengunjung tempatan dan antarabangsa.

Acara dihoskan Tenaga Nasional Bhd. (TNB) itu disertai lebih 100 pempamer bertaraf antarabangsa, dengan kebanyakannya ialah syarikat utiliti dunia selain firma teknologi dan komunikasi seperti Siemens, Huawei, Accenture, Shell, Nokia dan Voith Hydro.

Dalam kenyataan hari ini, TNB berkata, kebanyakan pengunjung adalah daripada sek-

tor utiliti tenaga, selain pihak yang ingin mendapatkan lebih banyak maklumat mengenai pembangunan teknologi terkini.

“Pameran tersebut juga membuka peluang kepada vendor TNB dan kontraktor bumiputera mempamerkan perniagaan, perkhidmatan dan produk masing-masing ke tahap yang lebih tinggi,” menurut TNB.

TNB berkata, empat pempamer menerima anugerah khas iaitu Korea Electric Power Corporation; syarikat utiliti milik negara Indonesia, PT PLN; syarikat berpangkalan di Singapura, SP Group; dan IHI Corporation yang berpangkalan di Jepun. – BERNAMA

LAMPIRAN 10 UTUSAN MALAYSIA (DALAM NEGERI): MUKA SURAT 5 TARIKH: 22 SEPTEMBER 2018 (SABTU)

Tentu hala tuju industri tenaga

CEPSI 2018 platform terbaik

Oleh MOHD. AZRAIE MD. YUSOF
dan NUR FATIEHAH ABDUL
RASHID

pengarang@utusan.com.my

■ KUALA LUMPUR 21 SEPT.

PERSIDANGAN Industri Bekalan Kuasa Elektrik (CEPSI) 2018 merupakan medan terbaik pemain-pemain industri bertukar pandangan dan idea dalam menentukan hala tuju industri bekalan kuasa khususnya di rantau ini.

Pengarah Urusan Tenaga dan Utiliti Accenture, Azrin Firdaus Osman berkata, lebih-lebih lagi topik-topik yang diketengahkan Tenaga Nasional Berhad (TNB) selaku penganjur dalam persidangan itu sangat relevan dan bertepatan dengan kehendak semasa serta keperluan masa hadapan.

"Accenture sebagai sebuah firma perkhidmatan perunding global dalam bidang teknologi maklumat (IT), pelaksanaan teknologi, digital dan operasi sangat besar hati dapat menyertai persidangan dwitahunan ini lebih-lebih lagi apabila Malaysia menjadi tuan rumah.

"Dengan keupayaan yang ada pada TNB, saya harap lebih banyak persidangan seperti ini dapat dianjurkan dengan memberi peluang dan ruang kepada organisasi atau



AZRIN FIRDAUS OSMAN (tengah) menunjukkan sistem keselamatan yang dihasilkan syarikatnya pada Persidangan Industri Bekalan Kuasa Elektrik (CEPSI) 2018 di Pusat Konvensyen Kuala Lumpur, semalam. - UTUSAN/ZAINI HUSIN



individu berkongsi idea sekali gus dapat membantu memajukan industri bekalan kuasa," katanya.

Beliau berkata demikian kepada *Utusan Malaysia* ketika ditemui di ruang pameran CEPSI 2018 di Pusat Konvensyen Kuala Lumpur di sini hari ini.

Selain 2,000 orang delegasi, persidangan tersebut yang berlangsung bermula 17 September lalu hingga esok turut dihadiri lebih 4,000 orang pengunjung yang rata-ratanya terlibat dalam sektor

utiliti tenaga.

Bertemakan *Reimagining Utility of The Future*, CEPSI 2018 membabitkan pembentangan kira-kira 550 kertas kerja teknikal serta penyertaan daripada lebih 100 pempamer bertaraf antarabangsa.

Sementara itu, Ketua Pegawai Eksekutif Malaysian Intelligence Meters Sdn. Bhd. (MIM), Shahriman Jaapar berkata, CEPSI 2018 merupakan peluang terbaik untuk syarikat tempatan menonjolkan diri dalam kalangan pemain industri.

Sepanjang persidangan itu,

kata beliau, syarikatnya yang merupakan pengeluar dan pengilang meter elektronik di Malaysia didatangi pelbagai pihak dari dalam dan luar negara yang menunjukkan minat terhadap produk dihasilkan terutama Advanced Metering Infrastructure (AMI) atau meter pintar.

Dalam pada itu, Presiden dan Ketua Pegawai Eksekutif TNB, Datuk Ir. Azman Mohd. meluahkan masa kali kedua untuk melawat ruang pameran dengan diiringi Ketua Pejabat Korporat TNB, Datuk Wira Roslan Ab Rahman.

REAKSI

"SAYA tertarik dengan penceramah-penceramah yang ditampilkan, mereka banyak membuka mata delegasi mengenai apa yang perlu dilakukan dalam berdepan cabaran industri bekalan tenaga pada masa hadapan."



CHRISTOPHER G. BULL
Trilliant Network Inc.,
Amerika Syarikat

"MELALUI persidangan ini, kita dapat melihat apa yang boleh dilakukan dalam memperkasakan utiliti terutama dalam kalangan negara Asia."



MATHIAS KRANICH
ABB Switzerland Ltd.,
Switzerland

"PENGLIBATAN syarikat dalam penganjuran CEPSI 2018 kali ini adalah sangat baik dan kami sangat menyukai idea-idea yang di-



LAMPIRAN 11
UTUSAN MALAYSIA (BISNES GLOBAL): MUKA SURAT 48
TARIKH: 22 SEPTEMBER 2018 (SABTU)

Akses elektrik di Asia Tenggara diperluas

SINGAPURA 21 Sept. - Usaha membekalkan tenaga ke lokasi luar grid di Malaysia dan bahagian lain di dunia akan menyaksikan penyelesaian baharu seawal akhir bulan ini dengan Pulau Semakau di pinggir laut selatan Singapura menjadi asas penting bagi tujuan itu.

Pulau tanah timbus itu, kira-kira 40 minit menaiki bot dari pulau besar Singapura, menjadi lokasi pengujian bagi syarikat multinasional Perancis, Schneider Electric dengan kerjasama Engie serta Nanyang Technological University.

Pengurus Kanan Projek Asia Tenggara, Schneider Electric, Soni Wibisono berkata, pihak berke-



naan akan menguji teknologi baharu yang dikenali sebagai *Sustainable Powering of Off-Grid Region* (SPORE), projek penyelidikan termaju tenaga hijau dan kos efektif bagi kawasan luar grid.

Katanya, projek itu masih di peringkat pentaullahan dan berdasarkan perjanjian antara pihak yang terlibat, kumpulan untuk menyelesaikannya pada sekitar Jun 2019, dan menetapkan bulan ini untuk mengakhiri peringkat

pentaullahan selepas itu kajian penyelidikan sehingga Jun 2019.

"Kajian penyelidikan ini akan menumpukan terutama kepada algoritma bagi pengawal mikro-grid kerana kami membangunkan unit pemantauan yang canggih.

"Pengawal mikrogrid jenis lain boleh didapati di pasaran, namun bagi yang ini kami mahu memberi ciri-ciri tambahan, algoritma terkini yang boleh mengekalkan jenis sumber tenaga yang berbeza apabila disambungkan kepada grid," katanya kepada pemberita semasa ditemui di pulau tersebut baru-baru ini.

Lawatan ke Pulau Semakau

bersama-sama pihak media dan pelanggan yang berpotensi itu telah diadakan sempena Sidang Kemuncak Inovasi 2018 oleh Schneider Electric selama dua hari bermula semalam, dengan mikro-grid sebagai antara tumpuan.

Projek itu bermula pada 2016, dengan pembinaan grid kuasa yang kecil dan serba lengkap untuk menunjukkan kegunaan gas hidrogen dalam menukar kuasa berkala daripada tenaga boleh diperbaharui seperti panel solar dan turbin angin kepada bahan api tersimpan yang boleh menjana elektrik bagi tempoh berhari-hari atau berbulan-bulan. -BERNAMA

LAMPIRAN 12
NEW STRAITS TIMES (NEWS/ BUSINESS): MUKA SURAT 23
TARIKH: 22 SEPTEMBER 2018 (SABTU)

INDUSTRY CONVERGENCE

CEPSI 2018 ENDS ON POSITIVE NOTE

Conference hints at significant cost-savings in industry if telcos and utility providers work together

KUALA LUMPUR

AS the three-day Conference of Electric Power Supply Industry Conference (CEPSI) 2018 closed on Thursday, 2,000 or more delegates ended their participation with many positive takeaways.

Particularly, this was on how attendees can reimagine the electricity supply industry (ESI) in accordance with CEPSI 2018's theme of "Re-imagining Utility of the Future" as many leaders shared their views on how the industry would transform in the next 10 to 20 years.

However, the theme that struck a chord for many to ponder on was on the eventual convergence

of the power and telecommunication industries as both of these heavily-networked utilities have much in common.

Many alluded to the significant cost savings the two industries can reap together if they discuss what can be shared and how best they can move forward together for the benefit of consumers and the company bottom line.

Some speakers said that such leading-edge or even common sense collaborations had already taken place in some countries

and both the residential and business communities there benefited from the synergies.

During the keynote session on "ESI Innovation and Smart Solutions", both Accenture Digital (Asean) managing director James Chong and Nokia Global vice-president of energy segment

Kamal Ballout shared the view that alliances between power and telecommunication companies (telcos) would be the way in the future.

They believed that while lowering costs was part of the pro-

cess, utilities must be mindful of additional services they can undertake to ensure revenues do not diminish with technology advancements.

Chong and Ballout agreed that power companies and telcos should explore areas where they can garner more businesses through the Internet of Things with other service providers so that synergies could be converted into better benefits for the development of cities and their residents.

In the case of Tenaga Nasional Bhd (TNB), which was directed by the government to explore a possible entry into the telco industry, Huawei Technologies Co Ltd chief technology officer Paul Scanlan said it made a good busi-

ness sense as the utility company already had an extensive infrastructure of cable network.

TNB chief executive officer Datuk Seri Ir Azman Mohd said the power utility would be working with MyPower to contribute to the reforms with its vast experience in the sector.

"Changes in the electricity generation industry in Malaysia are expected with the implementation of MESI 2.0, and TNB is ready to embrace industry reforms that is rapidly changing by the day compared with 20 years ago," he said.

Azman said TNB wanted to change the common misconception on its efficiency due to its position as a monopoly in the country. **Bernama**



LAMPIRAN 13

THE STAR (TECHNOLOGY): MUKA SURAT 4

TARIKH: 24 SEPTEMBER 2018 (ISNIN)

Humans preferred over robots

CAR INDUSTRY employees concerned that robots will put them out of work needn't worry – at least for now.

Of the 13 publicly traded automakers with at least 100,000 workers at the end of their most recent fiscal year, 11 had more staff compared with year-end 2013, according to data compiled by Bloomberg. Combined, they had 3.1 million employees, or 11% more than four years earlier, the data show.

Carmakers in China and other emerging markets, where growth is strongest, favour human labour because it requires less upfront investment, said Steve Man, an analyst at Bloomberg Intelligence in Hong Kong.

In developed markets, tasks that can be handled by robots have already been automated years ago and automakers are now boosting hiring in research and develop-

ment as the industry evolves.

"There's been a lot of growth in emerging markets, especially China, so that's one reason automakers are adding staff," Man said. "More staff is being added on the R&D side, with the push for autonomous, electric, connected vehicles."

A trio of Chinese automakers, SAIC Motor, Dongfeng Motor Group and BYD – in which Warren Buffett is a major investor – increased staff by at least 24%. Volkswagen AG accounted for more than one in five jobs among the group of 13, and increased its employee count by 12% in the period.

General Motors, which shrank its payroll 18% to 180,000, and Nissan Motor, which contracted by 2.8% to 139,000 workers, were the sole carmakers whose staffs got smaller, the data show. GM's numbers were affected by the sale of its European division to PSA Group last year.

About 40% of autoworkers were women in 2017, compared with 38% four years earlier, based on data from about 30 of the largest vehicle producers worldwide. The analysis didn't take into account wages or location of the workers.

Auto companies are hiring more for software positions than hardware roles to prepare for a future in which more vehicles are communicating with each other and their surroundings, Man said. The rising popularity of electric cars is also set to cause an upheaval at manufacturers that make parts for internal combustion engines.

Total vehicle production worldwide in 2017 rose 11% to 97 million units, compared with 2013. Chinese plants cranked out 30% of all vehicles last year, followed by 12% in the US, 10% in Japan, 6% in Germany and 5% in India.

Five of the top 12 producing nations – it took two million units



Carmakers in China and other emerging markets, where growth is strongest, favour human labour because it requires less upfront investment.

to qualify last year – were in Asia, three in North America, three in Europe and one in South America.

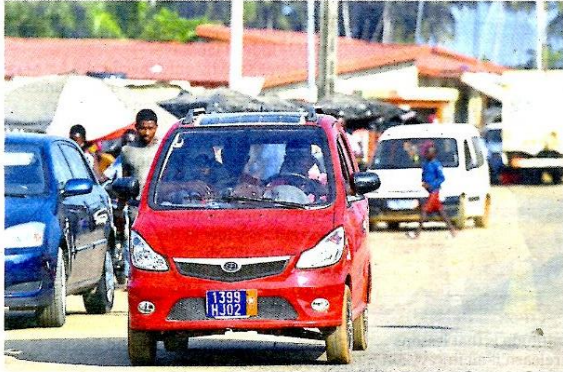
Global vehicle sales totalled 85 million units last year, an increase of 11% from 2013. Half of those

sales last year were in the Asia-Pacific region, a slight uptick because the proportion from Latin America fell from four years earlier with demand waning in Brazil. – Bloomberg

LAMPIRAN 14
THE STAR (WORLD): MUKA SURAT 27
TARIKH: 24 SEPTEMBER 2018 (ISNIN)

Solar vehicles replacing bush taxis

Resort island cleans up, sets sights on becoming Ivory Coast's premier eco city



Eco-friendly wheels: A motorist driving a taxi with solar energy panels on its roof in Jacqueville. — AFP

JACQUEVILLE (Ivory Coast): Hi-tech, cheap – and quiet. The Ivorian resort of Jacqueville just outside Abidjan is betting on solar-powered three-wheelers as it looks to replace traditional but noisy and dirty bush taxis.

"It's cheaper and relaxing," said local trader Sandrine Tetelo, of the Chinese-made Saloni or Antara tri-cycles, which could spell the end for old-school *woro-woro* four-wheelers as Jacqueville looks to make itself Ivory Coast's premier eco city.

The mini-cars, 2.7m-long and two metres high, are covered in solar panels each fitted out with six 12-volt batteries, giving the vehicles a range of 140km.

Returning from a visit to China, the solar cars' promotor Marc Togbe pitched his plan to mayor Joachim Beugre, who was immediately sold.

"We are used to seeing (typically old and beaten up) bush taxis pollute the environment. We said to ourselves, 'If we could only replace them by solar trikes,'" said Beugre.

"The adventure started in January with two little cars," said Togbe, who has created a partnership with local businessman Balla Konate.

Konate wants to extend operations to Odienne and Korhogo in the north, the country's sunniest region.

"Today, a dozen cars are up and running. We are right in the test phase. More and more people are asking for them," said Beugre.

Long isolated, his town, nestled between a lagoon and the sea, has flourished in terms of real estate and tourism since the 2015 inauguration of a bridge linking Jacqueville to the mainland and cutting transit time to Abidjan to less than an hour.

For the start of the school year in October, Jacqueville plans to bring on stream a 22-seater "solar coach" designed to help deal with "the thorny issue of pupils' transport".

Many schoolchildren have to travel tens of kilometres from their home village to urban schools.

But a switch to solar and durables may appear paradoxical in Jacqueville, as the area produces the lion's share of the country's gas and oil.

But the municipality sees none of the profits, an issue which has drawn public ire in the past.

The trike project is just one piece in a much larger jigsaw that includes the construction of a new eco city on a 240ha site.

"It will not be a city for the rich," insisted Beugre. "All social strata who respect the environment will be able to live there." — AFP

LAMPIRAN 15
MALAY MAIL (WORLD): MUKA SURAT 17
TARIKH: 24 SEPTEMBER 2018 (ISNIN)

**IN
BRIEF**

Tornado causes mass outages in Ottawa

OTTAWA — Hundreds of thousands of people were stranded without power in and around the Canadian capital after a tornado touched down twice, destroying houses and ripping the roofs off others. Ottawa Mayor Jim Watson said at least six people were injured. "It's in the top two or three traumatic events that have affected our city," he said. The tornado demolished homes in the town of Dunrobin to the north-west of the city before crossing over to Gatineau, which lies directly to the north of Ottawa. High winds damaged part of Ottawa's major electrical substations and officials said around 200,000 people were without power. Ottawa and Gatineau together have a population of 1.3 million people.

— Reuters

LAMPIRAN 16
THE STAR WORLD): MUKA SURAT 29
TARIKH: 23 SEPTEMBER 2018 (AHAD)

Asia must build better, say experts

'Damage from typhoons can be mitigated through improved urban planning'

KUALA LUMPUR: Population growth, rapid urbanisation and unfettered development of coastal areas in the Asia-Pacific region are increasing the risk of heavy damage from powerful typhoons, experts said.

They urged governments and the private sector to collaborate on improving urban planning, protecting mangroves and developing "sponge cities" that can absorb water and prevent flooding.

"Cities need to move from unplanned urbanisation to planned urbanisation," said Loretta Hieber Girardet, chief of Asia-Pacific at the United Nations International Strategy for Disaster Reduction in Bangkok.

"They need to plan urban growth – and that's not happening in Asia to the extent that it needs to happen."

Over the past 40 years, natural disasters have cost Asia-Pacific about US\$1.3 trillion (RM5.3 trillion), according to UN estimates, with China, the Philippines, Vietnam and Japan worst-hit by typhoons.

The latest major storm, super-typhoon Mangkhut, left a trail of destruction in both rural and urban areas of the northern Philippines, Hong Kong and southern China this week.

Asia has to deal with an average 29-30 typhoons each year, but fatalities have fallen with better weather forecasting, early warning systems and public awareness campaigns.

However, since the late 1970s, storms making landfall have become 15% more intense and their destructive power has increased by about 50%, Hieber Girardet said on Friday.

"Exposure is increasing and intensity of the hazard is increasing, and combined – these two – mean that the risk is increasing," she said.

This year, more than half of Asia-Pacific's population will be urban for the first time in history, and that figure will rise to two-thirds by 2050, the UN estimates.

The damage from typhoons can be mitigated through improved urban planning, which would draw upon available data on recurrent natural disasters, mapping, and understanding the risks to cities, experts said.

Both the private and public sectors can build resilience into infrastructure and developments to ensure they are able to withstand the impact and aftermath of typhoons, including flooding, damage to structures and high winds.

The region will need to invest US\$26 trillion (RM107 trillion) from 2016 to 2030 in infrastructure in order to maintain its economic growth, tackle poverty, and respond to climate change, according to the Asian Development Bank.

Incorporating resilience into infrastructure projects pushes costs up by only 2% to 4%, said Hieber Girardet, adding that the increased



Massive clean-up: Volunteers collecting garbage from Manila bay after Typhoon Mangkhut ravaged the country. — AFP

cost should be seen as an investment in the future.

Technology can also play a role in tackling problems like excess rainfall – as seen in a pilot "sponge city" project in Wuhan, a flood-prone metropolis in central China.

Arcadis, a Dutch engineering and consultancy company, began the decade-long project in 2016, which incorporates sustainable drainage systems into infrastructure development.

These include a type of water-absorbing asphalt, as well as green

spaces to help stop water from pooling.

City authorities should also build more parks, bolster flood defences and levies, and develop berms in flood-prone areas, said John Batten, an Arcadis director in Hong Kong.

The berms can have the added benefit of creating green spaces where people can enjoy leisure time, which also pay for themselves as developers are more likely to invest in such areas and boost tax revenues, he added.

"In the old days there would be a

bunch of ugly gates or dykes built and they're not places where people want to hang out," Batten said, adding that "now they are landscaped attractions".

It is also important to improve building codes to ensure that structures can withstand strong winds, while banning poster and electronic billboards on the top of buildings.

Rural and poor communities, such as subsistence farmers or minorities, are usually worst hit by typhoons.

After fleeing a storm, residents often return to find their homes and livelihoods destroyed, and they fall into debt and poverty due to the costs of rebuilding, experts said.

Typhoon Mangkhut caused about US\$265mil (RM1.1bil) of damage to the agriculture sector in the Philippines, according to the UN Food and Agriculture Organization (FAO), with at least 281,000 farmers directly affected.

Early warning systems – like text messages or water level markers on rivers and houses – and establishing evacuation routes and drills, can help rural communities and give farmers the option of early harvesting, according to experts.

Where that is not possible, crop insurance schemes will help farmers' recovery, they said.

Farmers can also diversify their crops to ensure that all is not lost when a typhoon strikes, according to experts. — Reuters

LAMPIRAN 17
THE STAR (WORLD): MUKA SURAT 21
TARIKH: 22 SEPTEMBER 2018 (SABTU)

California to limit use of plastic straws

LOS ANGELES: California restaurants will soon stop providing plastic straws unless customers explicitly ask for them, under a new law signed by the state's environment-friendly governor.

Governor Jerry Brown said he hoped the measure – which goes into effect next year and is the first of its kind nationwide – would spur people to “pause and think” about an alternative.

“It is a small step to make a customer who wants a plastic straw ask for it,” Brown said in a statement.

“But one thing is clear – we must find ways to reduce and eventually eliminate single-use plastic products,” added the governor, a fierce environmentalist who has been a leading US voice in the battle to fight climate change.

Under the new law, restaurants that don't comply will get two warnings before being fined a maximum of US\$300 (RM1,283) a year.

Brown warned that plastics in all forms were “choking our planet” and pointed to the huge amount of plastic products dumped into the oceans every year, killing off marine life.

“Plastic has helped advance innovation in our society, but our infatuation with single-use convenience has led to disastrous consequences,” he said. — AFP