

Singapore's low carbon future includes solar and imported power: Gan

Republic aims to increase solar energy deployment by five times by 2030, tap regional power grids

Syarafana Shafeeq

Singapore is looking at various strategies to decarbonise its electricity grid, including increasing solar power and importing low carbon energy from the region, Minister for Trade and Industry Gan Kim Yong said yesterday.

Mr Gan was speaking at the inaugural Singapore Green Plan Conversation organised by the Ministry of Trade and Industry.

Singapore's solar energy capacity has grown more than six times

over the past five years. The aim is to up solar energy deployment here by five times by 2030 to at least a two gigawatt-peak, equivalent to powering around 350,000 households a year.

Mr Gan said that the nation also plans to tap regional power grids. "We are embarking on a trial with Malaysia to import up to 100MW of electricity. This trial will allow us to build up our knowledge on larger-scale low-carbon imports from the region," he added.

The Lao PDR-Thailand-Malaysia-Singapore Power Integration Project has also started, which will include cross-border power trade of up to 100MW among the four countries involved.

Mr Gan said: "Singapore is a small city state – without natural resources, land, nor the climatic conditions for large-scale deploy-

ment of renewable energy sources. We therefore take sustainable development very seriously."

He added: "For us, climate change is an existential challenge."

The Singapore Green Plan 2030 was launched earlier this year as a blueprint to help the nation reduce its carbon footprint.

There are five pillars in the plan, namely City in Nature, Sustainable Living, Energy Reset, Green Economy and Resilient Future.

Yesterday's event, which aimed to engage businesses and representatives from trade sectors, was also attended by ministers of state for trade and industry Low Yen Ling and Alvin Tan.

Mr Gan said that the green economy will also present new opportunities for Singapore.

"We see the potential for Singapore to become a carbon services

hub. As the world moves to a low carbon future, companies will require expertise to manage their carbon footprint. We want to partner and support regional stakeholders in meeting their decarbonisation goals," he said.

Companies and workers are also encouraged to build their capabilities and take advantage of emerging opportunities.

Earlier this month, Enterprise Singapore launched the Enterprise Sustainability Programme, which supports training workshops and product development projects to support local businesses on sustainability initiatives.

The Energy Market Authority has also been working with the Singapore Institute of Technology to develop Singapore's first dedicated Electrical Power Engineering undergraduate programme to cultivate technical competence, skills and knowledge needed in new energy solutions.

Mr Gan said that the Singapore Green Plan will need effort from all sectors of society to succeed.

"We know that sustainable development will require strong commitment by all stakeholders – businesses, workers, and every one of us. Today's conversation is an important first step to engage with each other and work with one another, as we journey towards a green economy."

GREEN STRATEGY

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MINISTER FOR TRADE AND INDUSTRY GAN KIM YONG

On new opportunities the green economy will bring about for Singapore.

PUB dangles \$6.5m prize in global hunt for zero-emission solution

Nadine Chua

National water agency PUB is offering a total of \$6.5 million in prize money to those who come up with solutions to remove carbon emissions from its water treatment facilities.

Launched yesterday, the Carbon Zero Grand Challenge is seeking carbon capture, utilisation, and storage and removal solutions from around the globe, including from innovators outside the water sector.

Participants should aim to create innovative solutions to help PUB achieve its goal of net-zero emissions by 2050. Solutions can be at any technology level but should integrate with PUB's operations and reach commercial scale within a decade or sooner.

Proposals can be submitted from now till Feb 24 next year.

Ms Chong Mien Ling, PUB's chief sustainability officer, said: "Through this open innovation challenge, we are inviting researchers and companies from around the world to co-create carbon sequestration and utilisation technologies that can be integrated with PUB's operations.

"We hope to see game-changing solutions that can meet the operational needs of water utilities, while at the same time (are) capable of reducing carbon emissions."

This is on top of PUB's current suite of initiatives and research

that it is actively pursuing to reduce its carbon footprint.

The agency said yesterday that it has a three-pronged strategy to close the carbon loop: by replacing, reducing and removing.

Carbon-based energy sources have been replaced with solar photovoltaic (PV) systems deployed on facility rooftops and reservoirs over the years.

Along with the use of new technologies to improve energy efficiency and reduce energy required for water treatment processes, PUB expects to abate 60 per cent

of total emissions by 2050.

Two floating solar farms, at Bedok Reservoir and Lower Seletar Reservoir, have started operations.

Harvesting solar power from both its land-based installations and floating solar PV systems can

offset 8 per cent of PUB's annual energy needs.

PUB has been working with research institutes to develop next-generation membranes that can substantially reduce the energy required to produce Newater by 50

per cent or more.

Its diesel-powered vehicles are also being progressively replaced with electric ones to reduce energy consumption and emissions. The first batch of six electric vehicles will be deployed from next month.

The Bedok Reservoir Floating Solar Farm (left) and another floating solar farm at Lower Seletar Reservoir have started operations. Harvesting solar power from both its land-based installations and floating solar photovoltaic systems can offset 8 per cent of national water agency PUB's annual energy needs. PHOTO: PUB

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Takashimaya manager took bribes to cover up shortfall in security officers

Samuel Devaraj

A Singaporean in charge of Takashimaya's security department who accepted bribes was sentenced to 10 months' jail and ordered to pay a penalty of \$42,500 yesterday.

Chan Kuen Thong, 64, who was also senior divisional manager at Takashimaya Singapore, had engaged in a bribery scheme to cover up a shortfall in security officers at the department store, the Corrupt Practices Investigation Bureau (CPIB) said in a press statement.

His duties were to source quota-

tions from security agencies and ensure that the contracted agencies were providing services in accordance with their contractual agreements.

Investigations revealed that in 2016, he was tasked with sourcing quotations from security agencies because Takashimaya's existing security service provider was not able to fulfil the terms of its contract.

White Knights Security Services, one of three companies that responded, was awarded a one-year contract starting on Jan 1, 2017, based on Chan's recommendation.

Two additional two-year contracts were later awarded to White Knights, one on Jan 1, 2018, and the

other on Jan 1 last year.

Under the contracts, White Knights was to supply Takashimaya with 18 security officers for the day shift and six for the night shift.

If there was a shortfall in the number of security officers deployed, Takashimaya was entitled to issue claims.

Investigations revealed that

from the start of the first contract, White Knights director Mandhir Singh Karpal Singh faced a frequent shortfall of about three to five security officers for the day shift.

In the second week of January 2017, Chan complained to Mandhir about the shortfall, which had caused some security posts to be left unmanned.

Later in the month, Chan met Mandhir and asked to be paid \$4,000 every month in return for not issuing claims.

Mandhir, 30, agreed as it would not only save White Knights between \$12,300 and \$20,500 each month based on the average short-

fall of three to five security officers, but also save him the trouble of having to find more security officers for deployment at the department store.

It would also help him continue to secure contract renewals with Takashimaya.

Between February 2017 and May last year, Mandhir paid Chan cash gratifications totalling \$121,000 over 20 occasions.

In return, Chan did not issue claims.

For giving and accepting gratifications, the two men were charged on March 17 this year under the Prevention of Corruption Act.

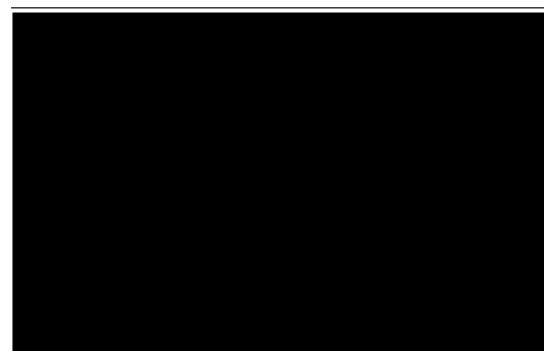
On Aug 16, Mandhir, a Singaporean

permanent resident, was sentenced to 10 months' jail for corruption.

CPIB said Singapore adopts strict zero-tolerance approach towards corruption and that companies are strongly advised to put in place robust procedures in areas such as procurement and internal audit to prevent falling victim to corrupt acts by their employees.

Guidance for companies on measures to prevent corruption can be found in Pact: A Practical Anti Corruption Guide for Businesses in Singapore, available on CPIB website.

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