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Green NEWSLETTER

Malaysia's 'Net Zero-Carbon' Pavilion Kicks Off

Focus Malaysia 29 Oct 2019 15:03



Malaysia led by Ministry of Energy, Science, Technology, Environment, and Climate Change (MESTECC) has kicked off construction of its "Rainforest Canopy" Pavilion during a groundbreaking ceremony today, to begin construction within the 4.38km2 World Expo site's Sustainability District.

On 10 October 2019, the Prime Minister of Malaysia, Tun Dr. Mahathir Mohamad revealed that construction of "Malaysia's Net Zero Carbon Pavilion", an initiative to offset the carbon from the Malaysia Pavilion at Expo 2020 Dubai, is an important and conscious step towards ensuring that building the structure will be sustainable in the long term. The offsetting actions will be done in Malaysia through tree planting initiatives which will also ensure that the nation will reforest more land areas, apart from the current programmes being conducted by various national agencies, including the ASEAN Framework for Climate Change agenda. Malaysia's current forest cover is at 55.3 percent, or 18.3 million hectares of its total land area, exceeding Malaysia's initial commitment to the Rio Earth Summit, which was 50%.

The carbon emission calculation includes the embodied materials, the construction process as well as the operation within the Pavilion for the 6 months duration from October 2020 – April 2021; and dismantling of the pavilion according to Expo 2020 Dubai's requirement.

The 'Rainforest Canopy' Pavilion concept and design was unveiled earlier this month, is set to be a sustainable architecture, with designs including energy efficiency features such as photovoltaic, natural ventilation, LED lightings and water efficiency fittings.

What is Net Zero Building?

Defined as: a highly energy efficient **building** that produces on-site, or procures, enough **carbon-free** renewable energy to meet **building** operations energy consumption annually.

What does it mean to be net zero?

The total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on the site

Is Net Zero emissions possible?

Net zero means the amount of greenhouse gases emitted into the atmosphere is no more than the amount taken out. ... To keep the warming under 1.5 degrees, global **carbon emissions** need to reach **net zero** by 2050.

What does zero emissions mean?

Zero emission refers to an engine, motor, process, or other energy source, that emits no waste products that pollute the environment or disrupt the climate.

Penang government set to make Bertam first smart energy city

The Penang government is set to make Bertam near here the first smart energy city of the state through a collaboration with two educational institutions, Deputy Chief Minister I Datuk Ahmad Zakiyuddin Abdul Rahman said today.

He said the National University of Malaysia through the Solar Energy Research Institute (SERI) and UKM Pakarunding Sdn Bhd will team up with the Kepala Batas Industrial Training Institute (ILP) to develop the smart energy city.

"The first strategy (in developing this smart energy city) is (to study) energy efficiency and energy conservation before adopting renewable solar energy to supply electricity to buildings," he said when opening the Bertam Smart Energy City project here.

According to him, the project is in line with Industrial Revolution 4.0 (IR4.0) which is a new approach to combine conventional technology with the Internet of Things (IoT) to enhance automation, communication, and using data online and in 'real time'.

"Smart Energy City is a smart city concept based on IR4.0 which was initially just a concept, but today, it has become a reality because IoT has begun to be applied in urban infrastructure," he said.

He said five buildings had been selected for the first phase of the project, namely Kepala Batas ILP, Abdullah Fahim Mosque, Kepala Batas Hospital, as well as the Mydin and Tesco supermarkets in Kepala Batas.

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“Smart City specifies a city’s capability to respond as promptly as possible to the issues and challenges of its citizens, it has existed for nearly 30 years but still is an ongoing topic as the development of smart cities is crucial and constantly changing with new technology and inventions.

“Thus, we envision smart cities that are integrated with sustainable technologies in the cities’ services such as 5G connectivity, cashless community, autonomous public transport, drone delivery, energy-efficient buildings, smart treatment of water and waste management that can improve the public safety and the quality of life of our citizens,” he said

Tun Mahathir, Prime Minister of Malaysia



Deep Sleep May 'Rinse' Day's Toxins From Brain

By Amy Norton
HealthDay Reporter

THURSDAY, Oct. 31, 2019 (HealthDay News) -- The deep stages of sleep may give the brain a chance to wash itself free of potentially toxic substances, a new study suggests.

Researchers found that during deep sleep, the "slow-wave" activity of nerve cells appears to make room for cerebral spinal fluid to rhythmically move in and out of the brain -- a process believed to rinse out metabolic waste products.

Those waste products include beta-amyloid -- a protein that clumps abnormally in the brains of people with dementia, said researcher Laura Lewis, an assistant professor of biomedical engineering at Boston University.

Lewis stressed that the findings, reported in the Nov. 1 issue of *Science*, do not prove that deep sleep helps ward off dementia or other diseases.

But the ultimate goal of research like this is to understand why poor sleep quality is linked to higher risks of various chronic conditions, from dementia to heart disease to depression, she said.

Researchers have known that cerebral spinal fluid, or CSF, helps clear metabolic byproducts from the brain, so that they do not build up there. They've also known that the process appears to amp up during sleep. But various "hows" and "whys" remained.

So the investigators recruited 11 healthy adults for a sleep study using noninvasive techniques: advanced MRI to monitor fluid flow in the brain, and electroencephalograms to gauge electrical activity in brain cells.

Sleep is marked by REM and non-REM cycles. During REM sleep, breathing and heart rates are relatively higher, and people often have vivid dreams. Non-REM sleep includes stages of deep -- or slow-wave -- sleep. During those stages, there's a slow-down in brain cell activity, heart rate and blood flow, and research has found that deep sleep may aid memory consolidation and allow the brain to recover from the daily grind.

Employee Profile



Everyone, meet Arnold
Country Manager, Philippines

Its been 3 years since he joined the team on August 2015. This daddy to 5 kids, loves watching oriental martial art movie, and he so inspired by 2008 biographical martial arts film based on the life of Ip Man, by Donnie Yen.

Had stop smoking at age of 46 is something that he proud of even it is a second trial ☺. Congrats Brother! He doesn't need expensive gift for his birthday, enough Pochero (*Philippones Beef Stew*) ,avocado juice , jackfruit & durian ice cream on the table to make his birthday unforgettable. Say hi to this super brother Arnold !!!

HOW WELL I SLEEP



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