

One man demonstrated 'outstanding leadership' in searching for solutions to the energy sector's manpower challenges, while an organisation made a sustained effort in promoting energy awareness among youth. Another organisation received special mention for

rallying youth around energy causes. **The Straits Times** speaks to the inaugural winners of the Singapore Energy Award, which honours those who have made transformational changes in the energy sector, and finds out what fuels their passion.



ENERGY WARRIORS

Powered by pure passion

SINGAPORE Power's (SP) senior adviser Quek Poh Huat lays the ground rules at the start of the interview.

"This isn't about me, okay? The Singapore Energy Award belongs to the company. I was just fortunate to be here to oversee all this," says the 67-year-old, ironically also the inaugural winner of the Individual category of this year's awards.

Mr Quek was appointed a director of SP Ltd in 2001 and became the group chief executive of SP from May 2004. He stepped down in January last year but is still on the frontline of addressing the sector's manpower crisis.

He recently chaired the Power Sector Manpower Taskforce (PSMT) to develop recommendations for building manpower capabilities for Singapore's power sector. The challenges it highlighted included the ageing technical workforce and the difficulty of attracting and retaining younger Singaporeans (see previous story).

"At Singapore Power (SP), the average age of our workers is 43. And as the workforce ages, we need them to be replaced. We also want to ensure know-how is transferred," he said.

"Working in the power sector is not seen as easy. People think that they will have to deal with harsh working conditions - having to be in substations and being on the ground.

"But these conditions aren't always harsh. We also need to make people understand the opportunities."

Mr Quek is no stranger to challenging situations.

When SP introduced integrated billing for power, water and waste removal over 2000 and 2001, a computer glitch meant some households did not receive a bill for a year, then got them all at once. "It took 12 months to correct the faults," he recalls. "We had to work out instalment schemes. I even went to Parliament to explain to the MPs how to trickle down the information to their concerned constituents."

Mr Quek was also under heat when, in 2004, the country experienced two outages. The first, in April, lasted 59 minutes and knocked out electricity supply to about 80,000 homes. The second, in June, left 30 per cent of the island in the dark for close to two hours.

"Since then, most of the outages have been minor. Touch wood!" he says.

Despite being in the sector just nine years, Mr Quek's list of contributions to it is long.

Under his watch, SP has become one of the largest energy utility companies in the Asia Pacific with revenues of \$8.97 billion in financial year 2012/2013.

He has also been developing capabilities within the industry and addressing the sector's talent crunch through a variety of measures, including cultivating a close relationship with the unions. His efforts earned him the NTUC May Day Award - Medal of Commendation (Gold) in May last year.

Mr RKS Nachiappan, general-secretary of the Union of Power & Gas Employees, says Mr Quek put in place more frequent meetings - both formal and casual - to understand the challenges and issues.

"He has a real soft spot for the low-income group, and knows training is the best way to help make their lives better," Mr Nachiappan adds.

In 2010, Mr Quek was heavily involved in implementing an industry-wide Work Skills Qualification (WSQ) System and even before re-employment of older workers was legislated, SP put such a scheme in place.

Mr Quek also lent his support to bond-free scholarships for power workers and mooted the idea of the Singapore Power Heartware Fund to help the needy elderly in our community.

"The three most important



Singapore Power's senior adviser Quek Poh Huat with a mural of the Singapore night skyline behind him at the SP offices. The 67-year-old is the inaugural winner of the Individual category of the Singapore Energy Award. PHOTO: EDWARD TEO FOR THE STRAITS TIMES

things in my life are family, friends and faith. I follow that when dealing with the union, staff, new recruits and retirees. We are a family, Singapore Power," Mr Quek says.

Now retired, Mr Quek's focus will be on the Singapore Power Training Institute (SPTI). It currently conducts about 200 training sessions under 70 programmes annually covering areas such as electricity and gas network operations, business continuity management, and safety and power quality.

His plan is to retain the expertise present in the industry by inviting retired power workers back to teach. He also sees room for Singapore to share what it knows with the region.

"Singapore has invested so much and learnt hard lessons developing its know-how. This can

be packaged and exported," he says.

Also a priority is to ensure that Singapore continues "keeping the lights on".

Singaporeans experience an average of just 25 seconds of outage a year. "And there is just a 0.01 per cent chance of a blackout. That's the best in the world," he says, beaming.

It is a long way to have come for a man who remembers running through back lanes barefoot, electric trams in Orchard Road and calling it a night when daylight ended.

"The next 20 years will also be dramatically different from how it is now," he said, adding that the priority is finding the people who can keep things humming while also handling areas like electric cars and smart grids.

"We cannot afford to fail."



Senoko is on the cutting edge of various energy innovations, including adopting and testing electric vehicles. PHOTO: ELECTRIC VEHICLE TASKFORCE

Undergrads' 'great charter' for environment

A LOVE for Lego was what drew 22-year-old Rochelle Hung to the National University of Singapore's student organisation Energy Carta.

Earlier this year, Energy Carta organised an event called Changing the Game, which visualised energy usage through the use of Lego bricks.

Ms Hung, a major in Project and Facility Management at NUS' School of Design and Environment (SDE), heard about it through a department e-mail blast. A long-time lover of Lego, she signed up. "I was determined to understand more about the energy field, especially sustainability, and be able to plan the future that I want to be in, that is, one with smart and sustainable buildings," she recalls.

Ms Hung eventually became one of the student leaders of Energy Carta, which has earned a Special Mention Award in the Organisation category of the inaugural Singapore Energy Award.

Energy Carta, which draws part of its name from the ancient historical document Magna Carta, or Latin for "great charter", was founded by 30-year-old NUS alumnus Yujun Chean in 2008.

The then final-year engineering student had been working with a Silicon Valley start-up and attending classes at Stanford University under a year-long NUS student programme, when he saw former US vice-president Al Gore deliver a landmark speech ahead of the screening of his documentary An Inconvenient Truth. Separately, he also attended a conference by a now-defunct Stanford organisation that convinced him students could make a difference.

Back at NUS, it dawned on him that he could do something similar. "I penned down names of prominent individuals within the



Youth organisation Energy Carta, founded by NUS alumnus Yujun Chean (front row, left) in 2008, is one of the three inaugural winners of the Singapore Energy Award. Energy Carta has raised more than \$170,000 in sponsorships from corporations such as PowerSeraya, Chevron, Sembcorp, Singapore Airlines and UOL. PHOTO: YUJUN CHEAN, ENERGY CARTA

clean-tech world," he recalls. "I also tried to get my friends excited about creating a student-run conference as a final year project."

In the end, an event he thought would simply allow him to "leave school with a bang" ended up having a much greater impact.

First, Professor Chou Siaw Ki-ang, executive director of the NUS Energy Studies Institute, encouraged him not to set up the organisation as a Stanford offshoot but as an independent Singapore-rooted organisation.

Then, the Economic Development Board (EDB) threw in its support and the Energy Market Authority (EMA) agreed to make En-

ergy Carta its youth partner at the inaugural Singapore International Energy Week in 2008.

"This gave us a lot of credibility when we were pitching for support, speakers and funding, and accelerated our growth curve," says Mr Chean.

What resulted was the Asian Youth Energy Summit in 2008, which became the largest student-led energy conference in Singapore, attracting over 500 participants and featuring 30 industry speakers. The following year, Energy Carta added the Chevron Case Challenge, where 97 teams vied to develop the best 20-year energy plan for a fictional city.

A year later, the winner of the

Singapore round of the Cleantech Open Global Ideas Competition was flown to the United States for the global leg of the competition.

Energy Carta has raised more than \$170,000 in sponsorships from corporations such as PowerSeraya, Chevron, Sembcorp, Singapore Airlines and UOL.

"These funds have enabled us to organise large-scale events, reaching well over a thousand participants," says Mr Chean.

"The belief is that while most people may not be intrinsically keen to solve climate change, they may indirectly do so by building a career in the sector, and Energy Carta aims to get them started on that path," he explains.

Senoko's activities to engage the young

IT IS a Saturday but one of Senoko Energy's vice-presidents is at Woodgrove Secondary School helping staff to develop an education module for next year and exploring how the school can become more energy-efficient.

Woodgrove Secondary is one of 18 schools that has been adopted by Singapore's largest power generation company as part of the NEA Corporate and School Partnership Programme (Casp).

Senoko offers the schools training attachments, plant tours and project sponsorship among other things, and Mr Kwong Kok Chan has made it his personal mission to work with them.

"When I first started in 2004, I saw it as just part of my job. Now I can't differentiate between work and personal interest," says the 60-year-old, an engineering graduate from the University of Malaysia.

"The students treat me like an uncle, and I've also learnt from the way they see things. One Admiralty student even challenged me, asking why Singapore didn't harness electricity from lightning. I had no idea what to say!"

It is people like Mr Kwong that Senoko Energy president and chief executive officer Brendan Wauters credit for the company's win in the Organisation category of the inaugural Singapore Energy Awards.

"The award reflects the continued and consistent efforts we have put in over the past decade," he says. "A lot of people like Mr Kwong are instrumental to what we have done. Mr Kwong loves to interact with students and their teachers. His passion is infectious."

But Casp is only one of many community outreach activities undertaken by Senoko, the only power generation company located in the north of Singapore.

"Being in the north, we are closer to residential areas, so it important that we have a relationship with our neighbouring communities," explains Mr Wauters.

Senoko has also partnered with the PUB to adopt Sungei Sembawang and help make young people aware of the need for water conservation.

In 2012, the company launched the Senoko Sustainability Challenge, which challenged students from primary schools to junior colleges to come up with solutions to environmental problems.

"It aims to create awareness of the importance of sustainability in general and climate change in particular among the younger generation, who are ultimately the ones who can impact future outcomes the most," says Mr Wauters.

A total of 120 teams from 52 schools participated this year.

Senoko, which started in 1975, has, through the years, delivered several firsts.

In 1991, it became the first power generation company to import natural gas into Singapore from Malaysia. It was a landmark moment, representing the nation's first step away from liquid fuel.

Senoko was also the first to use combined cycle gas turbine (CCGT) technology in 1995. Being able to fire with either natural gas or fuel oil or a mix of both translated into about 10 per cent in energy efficiency gains and cleaner emissions.

Senoko was also the first company to take the 3R principles of reduce, reuse and recycle to a new level: Its "repowering" approach so far has resulted in a more than 40 per cent drop in carbon intensity over 1990 levels.

Senoko is still on the cutting edge of other innovations, including adopting and testing electric vehicles.

"Power companies are often seen as part of the problem in terms of the environment, but in Singapore, we can say we have become part of the solution," says Mr Wauters.