

MEDIA RELEASE For immediate release

Students showcase refreshing initiatives in environmental & social causes at Senoko Sustainability Challenge (SSChallenge) 2013

SINGAPORE, 28 August 2013 – Senoko Energy, Singapore's largest power generation company, today announced the winners of the "Senoko Sustainability Challenge 2013" (SSChallenge 2013) at the Award Ceremony held at the Mandarin Orchard Singapore. The event was graced by Minister for Education Mr Heng Swee Keat.

Previously known as the National Weather Study Project, the Senoko Sustainability Challenge (SSChallenge) has widened its scope to incorporate sustainability in the competition beyond climate change issues. The theme for this year's competition was "Living with Climate Change: The Issues, Mitigation and Adaption". The SSChallenge 2013 was launched on 7 November 2012, and attracted 120 teams from 52 schools competing in 6 categories: Food, Water, Energy, Cities, Health and Tourism.

Primary school team discovers LED lights not suitable for classroom reading

The winners of this year's competition took on environmental and social causes through their projects, offering a fresh perspective on issues concerning climate change and sustainability. Students from Lakeside Primary School, winners of the Primary Division, performed a comparison between different kinds of energy-efficient light bulbs available on the market. The students found that although LED lights were more energy-efficient, the initial cost of purchasing them was prohibitive. The students also discovered that the dim light intensity of some LED lights meant that it was not suitable for reading, especially when placed some distance away from the reader. The students eventually submitted a proposal to the school to replace its existing classroom lights to a more energy-efficient and cost-effective variety. An eco-corner was also set up to educate the rest of the school community.

Harnessing sunlight for indoor lighting

Winners of the Secondary Division, NUS High School of Mathematics and Science students attempted to harness solar energy as an eco-friendly light source for their school. Using existing technology and materials, the team managed to separate light and heat energy from the solar energy harnessed, thereby allowing light to be used for illuminating purposes while keeping out heat to avoid additional energy use incurred for cooling. The students tested the device in a classroom at school, and found that light collection points located at North and South-facing sides of buildings performed better than East or West-facing ones. This is because East and West-facing collection points would only be able to collect sunlight either in the morning or afternoon, thereby decreasing the efficiency of the device.

Rooftop urban farming with heart

Hwa Chong Institution (HCI) students, winners of the Junior College Division, combined environmental and social causes by launching an urban farming project at Pertapis Children's Home. HCI students conducted weekly farming sessions, teaching children at the home how to convert food waste into compost, and to grow crops from readily available resources. Each activity was also incorporated with lessons on the scientific concepts behind it, thereby bringing science lessons to life for the underprivileged children. By entrusting the children with responsibility over the farm, HCI students helped realise the leadership potential of an autistic and hyperactive child, who has now been appointed leader of the initiative. The students further evaluated the feasibility of rooftop urban farming in Singapore, and found that it could be implemented island-wide to not only make better use of rooftop space, but also improve Singapore's food security and reduce carbon emissions.



Students' efforts commended

Professor Leo Tan, Principal Chairman of the SSChallenge Advisory Committee, commended the students for their efforts: "We are heartened by the quality of projects submitted for the SSChallenge. The students have addressed many of the most pertinent concerns relating to climate change and the environment, while at the same time offering feasible solutions that touch on various other areas of interest such as economic efficiency and social causes. The students also exhibited their ability to combine what they have learnt across various subjects and realised cross- disciplinary thinking in addressing real-life issues. We hope that this has been an exciting and educational journey for them, and that they will become our green warriors of tomorrow."

Mr Hajime Tsuda, Chairman of Senoko Energy, said: "We see climate change as a global phenomenon that is affecting our daily lives. Increasing awareness is the first step to address this issue. We hope the SSChallenge has encouraged our young to do just that. We are honoured that the four government agencies share our view and are supporting our commitment to this initiative. Senoko Energy is committed to the future of our environment, and the SSChallenge 2013 is one of the initiatives by which we seek to promote greater awareness about the challenges to our environment. Senoko Energy continues to devote resources to developing greener and more environmentally-friendly energy sources for the future."

The SSChallenge 2013 is a community initiative that aims to increase awareness among Singapore students about the importance of climate change and sustainability in our daily lives and the environment we live in. This initiative has the support of the Ministry of Education (MOE); National Environment Agency (NEA); the National Climate Change Secretariat (NCCS); the Public Utilities Board, the national water agency (PUB); the Building & Construction Authority; and the Singapore Science Centre. Please refer to the appendix for the list of winners.

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About Senoko Energy Pte Ltd (SEPL)

Senoko Energy is the largest power generation company in Singapore, having an installed capacity of 3,300 megawatts (MW) and providing more than a quarter of the nation's electricity needs. Senoko Energy was the first power generation company in Singapore to import clean natural gas for power generation in 1992, to launch a combined cycle plant in 1996 and to be certified the ISO 9000 in 1998, OHSAS 18001 in 2003 and ISO 14001 in 2004.

Senoko Energy is owned by an international consortium comprising Marubeni Corporation (30%), GDF SUEZ S.A. (30%), The Kansai Electric Power Co., Inc. (15%), Kyushu Electric Power Co., Inc. (15%) and Japan Bank for International Cooperation (10%).



Appendix

Winners received cash prizes as follows:

| | Primary | Secondary | Junior College |
|------------------|---------|-----------|----------------|
| Winner | \$3,000 | \$5,000 | \$5,000 |
| First Runner-Up | \$2,000 | \$3,000 | \$3,000 |
| Second Runner-Up | \$1,000 | \$2,000 | \$2,000 |
| Merit | \$500 | \$800 | \$800 |

The winners of the SSChallenge 2013 are:

PRIMARY DIVISION

| Prize | School | Project Title |
|---------------------------|---------------------------|--|
| Winner | Lakeside Primary School | Lord of Lightings |
| 1 st Runner Up | East View Primary School | A Gift From Heaven |
| 2 nd Runner-Up | Chongfu School | Munching Right |
| Merit | Bukit View Primary School | Energy Efficient Electrical Appliances |
| Merit | East View Primary School | Saving Power Saving Earth |

SECONDARY DIVISION

| Prize | School | Project Title |
|---------------------------|--|---|
| Winner | NUS High School of Mathematics and Science (Secondary) | Daylighting |
| 1 st Runner Up | Anglican High School | Vertical Farming in School for the Cultivation of Leafy Vegetables |
| 2 nd Runner-Up | Raffles Girls' School | Hotel Tierra |
| Merit | Commonwealth Secondary School | Food & War: A Study of Sustainable Agricultural Practices in Singapore |
| Merit | Nanyang Girls' High School | A Study of the Correlation between McDonald's Singapore and Climate Change |
| Merit | Raffles Girls' School | Eco-Isle |



JUNIOR COLLEGE / CENTRALISED INSTITUTIONS DIVISION

| Prize | School | Project Title | |
|---------------------------|--|---|--|
| Winner | Hwa Chong Institution | Bringing the Green to the Concrete Jungle | |
| 1 st Runner Up | NUS High School of Mathematics and Science | Energy Recovery Systems in Thermoplants using Novel Strontium-Doped Ceramic-Oxide Based Thermoelectric Material | |

SPECIAL AWARD

| Prize | School | Project Title |
|---------|----------------------------|---|
| Special | CHIJ St. Theresa's Convent | Are Tourism Related Activities in Singapore Contributing to Climate Change? |