

ANNEX : WINNERS OF TECHNOLOGY PROJECT CHALLENGE, NATIONAL CLIMATE CHANGE COMPETITION (NCCC) 2012

1 The winners of the Technology Project Challenge and descriptions of their projects are as follows :

CATEGORY: TERTIARY		
Rank	School	Project synopsis
1st prize	National University of Singapore	<p><u>Energy efficient humidity control system in buildings</u></p> <p>The team addresses climate change through their prototype which improves the energy efficiency of central air-conditioning systems by at least 10%. This is achieved through lowering humidity levels in the environment via a separate dehumidification add-on unit in existing central air conditioners so that the thermostat can be set at a warmer temperature while achieving similar levels of comfort, thereby saving electricity.</p>
2nd prize	National University of Singapore	<p><u>EasyWin</u></p> <p>To address the problem of food waste recycling in canteens, the team has developed EasyWin, an integrated system that encourages users to recycle food waste by offering rewards via an arcade-like game interface. The system also utilises bacteria to convert the collected food waste into biogas and compost.</p>
3rd prize	Singapore Polytechnic	<p><u>Green Centre</u></p> <p>Green Centre is a software suite which includes a smart phone application to allow users to control appliances at home or in office buildings remotely through the use of infrared signals and socket power control. Users can switch on or switch off any device connected to the power mains conveniently wherever they are. The Green Centre also enables the operation of appliances to be auto-scheduled achieve savings on electricity.</p>
Merit	Nanyang Technological	<p><u>Electrify</u></p>

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Rank	School	Project synopsis
	University	Electrify is a web application that makes it easy for users to contribute in addressing climate change by encouraging them to regulate their daily electricity usage in a fun and engaging manner. Comprising a game that rewards and incentivises users, the application allows users to track their energy consumption patterns. The website also offers practical tips for users on energy consumption reduction, as well as an e-commerce portal that allows users to buy energy efficient products and devices.
Merit	Nanyang Technological University	<u>Power line eco-home avoidance & automation system</u> The team's project is an energy saving kit that allows users to switch off electronic devices on standby mode through a power line automation system. The kit consumes little energy and allows users to switch off their devices via a central master switch.
CATEGORY: UPPER SECONDARY/ JC / ITE		
Rank	School	Project synopsis
1st prize	ITE College Central	<u>Eco-advertisement board</u> Public advertisement boards at bus stops are usually lit from 7pm till 7am daily. Electrical power is supplied to light the boards even when no one is looking at the advertisement, especially in the wee hours of the day, resulting in wastage of electricity. The team's project aims to address the problem by dimming the light intensity of the advertisement board via LED lighting, coupled with a sensor to detect human presence.
2nd prize	ITE College East	<u>Make Me A Earth Lover</u> The team's mobile phone application and website aims to motivate users to switch to an eco-friendly lifestyle via the use of GPS technology. The application also promotes green products and green lifestyle choices through social networking and discount offerings.

CATEGORY: TERTIARY		
Rank	School	Project synopsis
3rd prize	Catholic Junior College	<u>VampAway</u> The team's project aims to eliminate vampire electricity. The device cuts off the current to electrical devices which are left in stand-by mode for prolonged periods of time.
Merit	Raffles Girls' School	<u>PowerPlant</u> The team's prototype is a portable smartphone charger that utilises solar energy. As the use of smartphones is prevalent in Singapore, the team hopes that its device will be able to make a significant contribution to the reduction of carbon emissions, especially amongst youths.
Merit	Catholic Junior College	<u>SO-KI-nergy</u> The team's portable device uses kinetic and solar energy to store energy that can be converted to electrical energy in rechargeable batteries.

2 The winning teams were awarded the following prizes :

CATEGORY	PRIZE
Tertiary institutions	1st prize: \$4,000 2nd prize: \$3,000 3rd prize: \$2,000 Merit prizes (x2): \$1,000
Upper secondary / Junior college / Institutes of Technical Education	1st prize: \$3,000 2nd prize: \$2,000 3rd prize: \$1,000 Merit prizes (x2): \$500