



# 1.2 BILLION

people have no access to electricity and millions of children have no choice other than to study by candlelight. Those who appreciate the responsibility and privilege they have been given by God should be prepared to embark on the path of responsibility for the world we live in and pledge accountability for its welfare to look after, protect and improve the quality of life for everyone.

### SHEIKH ZAYED BIN SULTAN AL NAHYAN

The late president and founding father of the United Arab Emirates 1918 – 2004



### SAFEGUARDING THE FUTURE FOR PEOPLE AND THE PLANET

Since its inception in 2008, the Zayed Future Energy Prize has positively affected the lives of more than 200 million people worldwide by improving livelihoods in communities across the globe and by helping them gain access to reliable sources of energy and clean drinking water.

After eight years, the scale of progress is truly astounding. Through sustainable actions, the prize winners have displaced more than 887 million tonnes of carbon emissions, generated 360 million MWh of electricity from renewable sources and helped 100 million people use energy more efficiently in their daily lives. Solar lanterns alone have generated 98 million kWh in sustainable light, helping to improve the conditions under which 14 million school-aged children study.

The winning projects in the Global High Schools category, which was established in 2012 by the UAE leadership, have resulted in a reduction of over 1,000 tonnes of  $CO_2$ , the direct benefits of which are felt by 37,000 inhabitants in the surrounding communities. This impact through education, without doubt, reaffirms the importance of empowering young people across the world to begin their journey in ensuring a sustainable future.

The prize has undergone considerable growth over the years. In 2009, there were a total of 354 entries from 50 countries. The latest edition of the prize has seen all previous records broken with 1,437 entries spanning 97 countries.

Inspired by the foresight and long-term vision of the late Sheikh Zayed Bin Sultan Al Nahyan, the Founding Father of the United Arab Emirates, the prize is now a leading light in the field of sustainability and future energy. At one of the most critical times in the global dialogue on energy access and water scarcity, the prize is helping to build a global community around a common cause to address the most pressing issues of today and ensure a sustainable future for all.



**DR. SULTAN AHMED AL JABER** Director-General of The Zayed Future Energy Prize

### ZAYED FUTURE ENERGY PRIZE

Named after the founding father of the United Arab Emirates, Sheikh Zayed bin Sultan al Nahyan, the Zayed Future Energy Prize was established in 2008 to recognize and reward those whose innovations help achieve the changes needed to secure a sustainable future for the planet and improve the quality of life of its inhabitants.

Through the prize winners, 887 million tonnes of CO, have been saved, 360 million MWh have been produced through renewable energy, 65 million MWh saved through greater efficiency and 98 million kWh generated by solar lanterns.

In 2009 there were 204 nominations from 50 countries. Those figures have grown to 1,437 nominations and submissions from 97 countries for the 8th edition of the prize. Over 200,000,000 people worldwide have seen tangible improvements in their lives because of the prize winners through greater access to safe and renewable energy, cleaner drinking water, and increased energy efficient.







MWh have been produced through renewable energy









# 202,205,800 PEOPLE

BENEFITTED IN THE WORLD FROM 2009 – 2015







CLEAN STOVES – ASIA / AFRICA



ADVOCACY



CLEAN ENERGY INVESTMENT



ENERGY ACCESS – ASIA / AFRICA



RENEWABLE ENERGY



Since 2013, 2,000 students from 13 countries have been involved in award-winning projects



# 1,165 tonnes

of CO<sub>2</sub> emissions have been cut as a result of the projects of winning Global High School since 2013

### REWARDING INNOVATORS

The prize empowers innovators in renewable energy and sustainability across five categories; Large Corporations, Small and Medium Enterprise, non-Profit Organisations, Lifetime Achievement and Global High Schools, where one regional award is given to a high-school in each of the Americas, Africa, Europe, Asia and Oceania.

The Large Corporations is a recognition award that helps businesses across the world continue to place sustainability at the heart of everything they do. With encouraging innovations at every level of business, from SME to multi-nationals, the prize is ensuring that sustainability, clean energy, and environmental action take their place at the center of a business ethos. By empowering non-Profit organisations alongside this, the prize cultivates a growing community of people and business helping to shape the communities of tomorrow.

Established in 2012, the Global High Schools category helps inspiring young people to make an impact on the world around them in a different way. By calling for schools to think sustainability and submit a project that they wish to implement, the prize is playing an active role in helping those that will shape the world of tomorrow become involved and engaged in sustainability at a younger age. In doing so, they will carry this message forward in their future lives.









### HARNESSING THE POWER OF NATURE SECURE ENERGY FOR A **CLEAN ENVIRONMENT**

Previous winners include Toyota, the world's largest car manufacturing company, which launched its Prius hybrid vehicle in 1997 and Vestas, the world leader in wind turbine technology, striving to establish wind as a reliable and viable alternative to fossil fuels. In total large corporations have succeeded in reducing CO, emissions by over 880 million tonnes.

### Previous winners

2010 Toyota Motor Corporation - Japan Suntech Power Holdings (Runner-up) – China 2011 Vestas - Denmark 2012 Schneider Electric - France 2013 Siemens LLC - Germany 2014 ABB - Switzerland 2015 Panasonic – Japan

In total large corporations have succeeded in reducing  $CO_2$  emissions by over

## 880 MILLION tonnes.

### A BRIGHT FUTURE

Far too many students across the developing world face a difficult choice; neglect their health or neglect their studies because the only light they had was a dangerous and unhealthy kerosene lamp. Now ten million children have access to clean solar-powered light thanks to robust and sustainable innovations implemented by the prize winning Small and Medium Enterprises. This is just one way that SME innovators are helping to improve the lives of others across the world.

Previous winners 2010 International Development Enterprises (Runner-up) – India 2011 E+Co (Runner-up) - USA 2012 CDP - UK Orb Energy (Runner-up) - India 2013 d.light design – USA 2014 Abellon CleanEnergy - India 2015

M-KOPA Solar – Kenya



# CASE STUDY

Liter of Light started teaching people how to make homemade solar lanterns in the Philippines in 2011 and since winning the prize in 2015 it has extended its operations to communities as far away as Malaysia, Kenya and Colombia, lighting not only homes but public places too. Tens of thousands of households and shops in the Philippines benefit from these solar lanterns which save their owners US\$10 a month on average in electricity bills and reduce carbon emissions at the same time.

Since winning the prize in 2015, Liter of Light has expanded its reach to over 15 countries in Europe, Asia, Africa and the Americas, and now aims to light up one million lives with Liter of Light technology by 2017.



### DOING THE GROUND WORK

A show of hands in the boardroom can determine where millions of dollars are spent, but the cumulative effect of millions of individual decisions should not be underestimated, nor should the efforts of non-profit organisations (NPOs) and non-governmental organisations (NGOs) working on the ground, exercising their influence over governments, companies and the general public. These organisations demonstrate their commitment to a sustainable future by helping to provide improved standards of living and quality of life, secure livelihoods, access to education and long-term independence through community-based facilities that give them the tools to create their own sustainability journey.

### Previous winners

2012 Environmental Defense Fund (Runner-up) - USA 2013 Ceres – USA 2014 Fraunhofer Institute for Solar Energy Systems - Germany 2015 Liter of Light – Philippines



# CASE STUDY

M-KOPA Solar is a Kenyan company supplying solar energy appliances. Today, they sell 2,500 systems a week through a network of over 500 retailers. Within two years of its founding, M-KOPA had connected over 100,000 homes to affordable and clean solar power in a region where 20 million people live in communities with no access to grid electricity. Many of whom were previously dependent on expensive and unhealthy paraffin for lighting and cooking. The company has set an ambitious target to have one million homes using its equipment for heating, cooking, lighting, radios and charging telephones by the year 2018 and it is expanding its operations to neighbouring countries such as Uganda and Tanzania.

Felix Ogutu, a student from rural Kenya, and his family, have seen many benefits from signing up to M-KOPA's ground-breaking scheme. The light that M-KOPA provides has ensured Felix does not have to study in the dark and that his family are able to fetch water for their home even when the night draws in. Felix now has round the clock access to the internet and has used this to participate in a bachelor's course in IT developing apps.

M-K PA SOLAR

44

My ability to study has been transformed because I now have access to information at the touch of a button.

Felix Ogutu, M-Kopa user

M-K PA SOLAR

A I t more light for I with M-KOPA Solar! Within two years of its founding, M-KOPA had connected over

**100,000** homes to affordable and clean solar power in a region

where **20 million** people live in communities with no access to grid electricity

## THE GAME CHANGERS

Those considered for the lifetime achievement award are remarkable planet and positively affected the lives of millions of people worldwide through their long-term vision and leadership is this field. To date



2009 DIPAL BARUA Founding Managing Director, Grameen Shakti Founder and Chairman, Bright Green Energy Foundation



2012 DR. ASHOK GADGIL Director, Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory



2014 WANG CHUANFU Founder, Chairman, Executive Director and President, BYD Co Ltd



2009 DR. MARTIN GREEN Professor, The University of New South Wales



2011 AMORY B LOVINS Co-founder and Chief Scientist, Rocky Mountain Institute

Discuss



2013



2015 AL GORE Co-founder and Chairman, Generation Investment Management

# ASHOK GADGIL

Ashok Gadgil, the Director of the Environmental Energy Technologies Division of the Lawrence Berkeley National Laboratory, won the life-time achievement award in 2012 for his part in the development of the "Berkeley-Darfur" fuel efficient cooking stoves, bringing health, safety and environmental benefits.

Many people have to use inefficient rudimentary stoves burning biomass damaging the health and the environment including the millions displaced by the conflict in Darfur. The Berkeley-Darfur stove is a metal construction and reduces the amount of firewood needed by more than half. A total of 45,000 units were distributed to women in refugee camps, who had previously had to walk seven hours a day, three to five times a week to gather fuel, running the risk of physical assault

As well as over a quarter of million people having cleaner stoves, 100 million households are benefiting from efficient lighting in 30 developing countries and one million people have access to safe drinking water thanks to the pioneering work of Dr Gadgil and his team.



As well as over a quarter of million

people having cleaner stoves,

100 million

households are benefiting from efficient lighting in 30 developing countries and one million people have access to safe drinking water.

## IMPACT OF GLOBAL HIGH SCHOOL PROJECTS



PEOPLE IMPACTED 37,360



21,900

17.52

120

120

1,200

440

1,300

1,300

2,070

1,000

-

-

61,000

48.8

32

626

14,000

11.2

300

2,500

15,000

Star Star						
			AN THE REAL PROPERTY OF			
$\geq 1^{\sim}$						
		the second	£.			
		6				
		2				
	I	I		I	I	I
		*				*
TANZANIA	MALDIVES*	AUSTRALIA <sup>*</sup>	INDIA	TONGA	UAE	Romania <sup>*</sup>
TANZANIA	MALDIVES*	australia <sup>*</sup>	INDIA	TONGA	UAE	romania*
TANZANIA	<sup>™</sup> MALDIVES <sup>★</sup>	AUSTRALIA <sup>*</sup>	INDIA	TONGA	UAE	ROMANIA <sup>*</sup>
TANZANIA	<sup>™</sup> MALDIVES <sup>★</sup>	AUSTRALIA <sup>*</sup>	INDIA	TONGA	UAE	ROMANIA <sup>*</sup>
TANZANIA	<sup>™</sup> MALDIVES <sup>★</sup>	australia <sup>≭</sup>	INDIA	TONGA	UAE	ROMANIA <sup>*</sup>
	<sup>™</sup> MALDIVES <sup>★</sup>	AUSTRALIA <sup>*</sup>	INDIA	TONGA	UAE	ROMANIA*
TANZANIA 267,500	<sup>∞</sup> MALDIVES <sup>★</sup>	AUSTRALIA*	INDIA 12,027	TONGA 469,000	UAE 23,000	ROMANIA* 20,000
TANZANIA 267,500	<sup>∞</sup> MALDIVES <sup>★</sup>	AUSTRALIA*	INDIA 12,027	TONGA 469,000	UAE 23,000	ROMANIA* 20,000
TANZANIA 267,500 214	™ MALDIVES*	AUSTRALIA* -	INDIA 12,027 9.6216	TONGA 469,000 375.2	UAE 23,000 18.4	ROMANIA* 20,000 16
TANZANIA 267,500 214	MALDIVES <sup>★</sup>	AUSTRALIA* - -	INDIA 12,027 9.6216	TONGA 469,000 375.2	UAE 23,000 18.4	ROMANIA* 20,000 16
TANZANIA 267,500 214 55	MALDIVES*	AUSTRALIA* - 33	INDIA 12,027 9.6216 19.1	TONGA 469,000 375.2 10	UAE 23,000 18.4 12	ROMANIA* 20,000 16 20
TANZANIA 267,500 214 55 30	MALDIVES*	AUSTRALIA* - - 33	INDIA 12,027 9.6216 19.1 37	TONGA 469,000 375.2 10	UAE 23,000 18.4 12 40	ROMANIA* 20,000 16 20 20
TANZANIA 267,500 214 55 30	MALDIVES*	AUSTRALIA* - - 33 56	INDIA 12,027 9.6216 19.1 37	TONGA 469,000 375.2 10 10	UAE 23,000 18.4 12 40	ROMANIA* 20,000 16 20 20
TANZANIA 267,500 214 55 30 900	MALDIVES*	AUSTRALIA* 33 56 600	INDIA 12,027 9.6216 19.1 37 250	TONGA 469,000 375.2 10 10	UAE 23,000 18.4 12 40 800	ROMANIA* 20,000 16 20 20 20 900
TANZANIA 267,500 214 555 30 900	• MALDIVES* - - 40 -	AUSTRALIA* 333 56 600	INDIA 12,027 9.6216 19.1 37 250	TONGA 469,000 375.2 10 10 1,300	UAE 23,000 18.4 12 40 800	ROMANIA* 20,000 16 20 20 20 900
TANZANIA 267,500 214 555 30 900 4,900	<ul> <li>MALDIVES*</li> <li>-</li> <li>40</li> <li>-</li> <li< td=""><td>AUSTRALIA* 33 56 600 1,800</td><td>INDIA 12,027 9.6216 19.1 37 250 740</td><td>TONGA 469,000 375.2 10 10 1,300 3,900</td><td>UAE 23,000 18.4 12 40 800 4,050</td><td>ROMANIA* 20,000 16 20 20 20 20 20 20 20 20 20 20 20 2,700</td></li<></ul>	AUSTRALIA* 33 56 600 1,800	INDIA 12,027 9.6216 19.1 37 250 740	TONGA 469,000 375.2 10 10 1,300 3,900	UAE 23,000 18.4 12 40 800 4,050	ROMANIA* 20,000 16 20 20 20 20 20 20 20 20 20 20 20 2,700

**\*** SCHOOL PROJECT STILL IN IMPLEMENTATION

### THE NEXT GENERATION OF **ENERGY INNOVATORS**

Since the launch of the Global High Schools category in 2012, as part of the UAEs leaderships commitment to the Sustainable Energy for All (SE4All) initiative, nearly 2,000 students have been directly involved in the projects of award-winning schools and academies. Consequently over 9,000 students in total have benefitted from these projects, as well as 37,000 people living in local communities. Almost 1.5 million kWh have been generated, solar panels with a capacity of 263 kW installed and CO<sub>2</sub> emission cut by over 1,000 tonnes.

### Previous winners

2013 THE AMERICAS Secundaria Tecnica 120 - Mexico EUROPE Okehampton College - UK AFRICA Kirya Secondary School - Tanzania ASIA Shaikh Khalifa Bin Zayed Bangladesh Islamia School – UAE

### 2014

THE AMERICAS Bronx Design & Construction Academy - USA EUROPE Gheoghe Rosca Codreanu National College – Romania AFRICA Nkhata Bay School Authority – Malawi ASIA Kalkeri Sangeet Vidyalaya - India OCEANIA Tonga High School – Tonga

2015 THE AMERICAS Munro Academy - Canada EUROPE Petru Rares National College - Romania AFRICA Waterford Kamhlaba - Swaziland ASIA Addu High School - Maldives OCEANIA Melbourne Girls' College - Australia





### CASE STUDY **DIKIRANI THAULO**

After winning the Zayed Future Energy Prize's Global High Schools category in 2014, the Nkhata Bay School Authority used the US\$100,000 award to set up the Zayed Solar Academy. It was here that Dikirani Thaulo, who is from a village outside Lilongwe in the Central Region, trained as an engineer and learnt how to provide homes in rural Malawi with access to electricity. With this knowledge he acquired at the academy he is now able to ensure that his generation will be the last to have to study by candlelight. When his training is completed, he hopes to help set up a Zayed Solar Academy near Lilongwe.

Dikirani's journey with the prize continued when he appeared as a keynote speaker at the Sustainable Energy for All (SE4All) Forum at the UN HQ in New York. It was there that he symbolically lit a candle to represent the light he had studied under and told his audience that young people were not just the "next" generation waiting in the wings but were already shaping the future.

The Zayed Future Energy Prize has changed Dikirani's life and lives of millions of others. Dikirani's story serves as an inspiration for the record 189 entries in 2016 Global High Schools category.







The solar lantern systems produced by past winners of the Zayed Future Energy Prize have transformed people's lives. These systems are clean and safe unlike the kerosene lamps which they are replacing and with improved design they are costing far less to produce and to buy. Running on solar power they cost nothing to run. As they provide reliable light throughout the hours of darkness allowing children to read for longer, levels of academic achievement are improving and with no fumes, solar lanterns do not cause respiratory illnesses.



### 98,000,000

kWh have been generated by solar lantern systems developed by winners of the Zayed Future Energy Prize since it was established in 2008









## 2016 WINNERS

All the winners of the Zayed Future Energy Prize have been chosen because of the unique contributions that they have made to attaining a sustainable future. These innovative pioneers have made a lasting impression on the lives of millions of people. This year's winners continue to break new ground in sustainability and represent what can be achieved when human ingenuity and determination are applied to solving the world's most pressing problems.























### LIFETIME ACHIEVEMENT DR GRO HARLEM BRUNDTLAND - NORWAY

Dr Gro Harlem Brundtland became Norway's first female prime minister in 1981, a position she held for a total of a decade over three terms. She was the youngest ever person to be elected to the position of prime minister. Before entering political service, she qualified as a medical doctor and worked in the public school health service in Oslo.

After leaving Norwegian politics in 1996 she went on to chair the UN's World Commission on Environment and Development which produced a report, "Our Common Future". It is testimony to her considerable influence that these are known in common parlance simply as the Brundtland Commission and the Brundtland Report. Noted for its unprecedented inclusiveness, the impact of the report, which recognized that economic development, social progress and environmental protection went hand-in-hand, is felt today as it led directly to the 1992 Earth Summit and the Rio Declaration.

Appointed Director General of the World Health Organization in 1998, the UN Special Envoy on Climate Change in 2007 and a member of the UN Secretary-General's High-Level Panel on Global Sustainability in 2010, Ms Brundtland now serves as deputy chair of the Elders, a group established by Nelson Mandela and made up of former world leaders who dedicate themselves to addressing the most pressing global problems of the time. On sustainable development, she said "These [goals] should address the economic, social and environmental dimensions of development in a comprehensive manner that can galvanise efforts to grow economies in a way that tackles poverty and inequality and protects our environment".



# LARGE CORPORATION

BYD is one of the world's leading manufacturers of clean energy vehicles. London, New York, Hong Kong, Singapore, Brussels, and Bogota are just six of the cities in 36 countries worldwide benefitting from BYD's electrified public transport solutions, which go some way towards fulfilling the company's dream of achieving zero emission energy systems.

BYD's team of 16,000 R&D engineers have come up with innovations that have helped changed perceptions of new energy vehicles. This includes the development of the BYD PHEV Qin which combines high performance (0-100kmh in 5.9 seconds) with fuel efficiency (100km on less than two litres of petrol)

In 2015, the company invested around US\$3 billion in iron-phosphate batteries and new energy vehicle R&D, and subsidised new energy vehicles for its employees to promote their widespread use.





The Zayed Future Energy Prize is an important initiative to inspire people and organizations to create solutions for the future of energy, climate change and sustainable global energy resources.

### SMALL AND MEDIUM ENTERPRISE OFF GRID ELECTRIC - TANZANIA

Offering easier access to energy to help increase study time, income generation and leisure pursuits, Off Grid Electric provides solar power services to customers in Tanzania who are not connected to the conventional power network.

Off Grid Electric's customers can upgrade their systems without having to buy a new product and offer a 10-year leasing agreement with free servicing. The company's 'Million Solar Homes' initiative aims to expand the access to off-grid solar power to even more people in Tanzania.

The benefits of clean solar power are already being felt by 225,000 people in 45,000 households across the country. Off Grid Electric's solar home systems mean householders no longer need to use more expensive and polluting kerosene, diesel or charcoal, making the home environment healthier, protecting the environment with reduced carbon emissions and saving a typical consumer as much as \$15 a month.



The benefits of clean solar power are already being felt by

**225,000** people in 45,000 households across the country.

### NON-PROFIT ORGANISATION KOPERNIK - INDONESIA

Kopernik delivers sustainable energy technologies to communities thereby helping to reduce poverty. By November 2015, the organization had distributed over 60,000 units of clean energy technologies including solar lights, water filters, and cooking stoves, reaching over 300,000 people. Kopernik also runs the "Wonder Woman" initiative, helping women to become entrepreneurs through the sale of clean energy products in the communities.

Over the years, Kopernik has learned how to promote clean energy products to "base of the pyramid" markets. They identify building trust, overcoming financial barriers, riding the "adoption wave" (recognizing that not everyone embraces innovations straightaway), focusing on tangible benefits and showing commitment by staying engaged, as the key drivers of this approach.



### 66

Our long-term vision for sustainable development is a world in which policy-makers, industry leaders, and civil society all make decisions and implement programmes not in myopic 2-3 year timeframes, but in 20-30 year timeframes for our future generations.

### GLOBAL HIGH SCHOOL - AFRICA SOS HG SHEIKH SECONDARY SCHOOL - SOMALIA

Boasting the President, the Speaker of the Parliament and a PhD candidate who studied renewable energy among its alumni, the SOS HG Sheikh Secondary School is well placed to meet the challenges of promoting sustainability. These challenges include lack of awareness of the importance of modifying behaviour, an inadequate policy framework and low technical capacity.

Their project will help 293 families move away from using charcoal for cooking by giving them access to the school's excess gas that is 70% cheaper than the normal price. This will save 152, 027 trees, reduce indoor pollution and increase energy savings by US\$935,225 over the duration of the project. Academic performance will also improve. The school will use clean power allowing students to read for 2½ hours a day rather than the average 1 hour at present with expensive and inefficient kerosene lamps.



### 66

These individuals [alumni of the school], armed with their SOS-grown attitudes, had the greatest impact on the local community in every conceivable aspect. And since the actions of one community affect the rest of the world, we believe that the changes brought about by our alumni in their local communities have contributed in some small way to the international pursuit for a better world.

### GLOBAL HIGH SCHOOL ASIA KOREA SCIENCE ACADEMY - SOUTH KOREA

Established in 1991 as a science high school, KSA in Busan was designated as an institute for gifted education by the Korean Government in 2003 and has been affiliated with KAIST, a world-class science and technology university since 2009. South-east of Korea has 16 operating nuclear reactors providing 30 per cent of the country's energy needs (compared with just 2 per cent from renewables) but opposition to atomic power has grown since the Fukushima disaster in 2011.

Working with KOSPO (Korea Southern Power), KSA has organized the Green Energy Dream Camp giving local children a high quality education programme. In August 2015 KSA hosted the international Korea Science Academy Science Fair focusing on the theme "Environment and Energy" which attracted 150 students from 29 institutes spanning 15 countries.



The mission of the KSA is to nurture creative leaders who will contribute to global society. To accomplish this mission, the KSA teaches creativity, passion and service, as key spirits to all its students.

### GLOBAL HIGH SCHOOL AMERICAS INSTITUCIÓN EDUCATIVA GABRIEL PLAZAS - COLOMBIA

Located in rural Colombia, Institución Educativa Gabriel Plazas strives to securing access to more reliable, less expensive and more sustainable sources of energy. The school is therefore proposing to build a selfsustaining cafeteria to be housed in a bio-climatically designed structure, using solar power, efficient lighting and a new ventilation system with a bio-digester, which will turn food waste into gas for cooking.

The school's pupils, aged from 5 to 17 years, will learn about the importance of a sustainable and healthy life-style and help educate the local community about the need to use the limited resources available more responsibly. Moreover, the project will teach the children about carbon-free alternatives and the project will help create employment and serve as a model for bio-climatic building design for homes and other schools in the region.



### GLOBAL HIGH SCHOOL EUROPE SCHÜLER-FORSCHUNGS-ZENTRUM SÜDWÜRTTEMBERG - GERMANY

Located in Germany, the first of the major industrialized countries to commit itself to obtaining all of its power needs from renewable sources, the Students' Research Centre of Southern Wuerttemberg aims to enthuse, build interest and involve children and young people in the technologies of the future.

The students themselves are at the heart of the Centre's programme as they implement their own ideas guided by experts. As a consequence, they develop a strong sense of commitment to their projects. Motivated trainers, serving as role models and radiating values, light a spark in their students allowing them to attain the highest levels of achievement.



### 66

Change can only be brought about by courageous and motivated people who have new and fresh ideas and the will to put them into practice with conviction and with respect towards humans and the natural environment.

### GLOBAL HIGH SCHOOL OCEANIA CASHMERE HIGH SCHOOL - NEW ZEALAND

The Cashmere High School is looking to install solar panels, a wind turbine and piezoelectric tiles and conduct a campaign on sustainable energy best practice from which all secondary schools in the country will benefit.

In 2012 Cashmere High School installed smart "ecoDriver" meters and software to monitor the amount of electricity consumed at their school. Students launched a "Switch It Off!" campaign reducing the school's electricity consumption by 10% in 2013. In 2014, the installation of energy-efficient LED lights throughout the school achieved a further 20% reduction.

Building on past achievements, the 25kW solar panel system will generate 36,250 kWh of electricity annually, reducing the school's carbon emissions by five tonnes p.a. and saving US\$30,000 over five years. The wind turbine will attract visitors to the school, generate 2kW and significant media publicity. Piezoelectric floor tiles will light a corridor and allow pupils to charge their mobile phones.





## COMMUNICATING INNOVATION

The Zayed Future Energy Prize, which promotes innovation in cutting-edge technology in the field of clean energy and sustainability, also has a range of state-of-the-art communication platforms to ensure that the prize's global community can share ideas, consider solutions and keep abreast of the latest developments as they happen.

Launched in August 2014, **Sustainnovate** already has 85,000 users worldwide. These users are drawn from large corporations, small and medium enterprises, NPOs, academics, entrepreneurs and innovators. It includes sections on industry news and case studies as well as having a discussion board and blogs. **Sustainnovate** also has a stablemate dedicated to younger people – **Ysustainnovate**, which addresses global high schools and provides learning tools such as video and audio material and an "Ask the Expert" feature.

In addition, 93,500 Facebook users "like" the Zayed Future Energy Prize page and there are 184,000 regular followers on Twitter.

## MEETING TODAY'S CHALLENGES FOR A BETTER TOMORROW

Inspired by the vision of Sheikh Zayed bin Sultan Al Nahyan, the Zayed Future Energy Prize seeks to empower and connect companies, organisations, schools and individuals across the world who are innovative pioneers in the field of renewable energy and sustainability. The prize strives to give a voice to those that have also committed themselves to addressing environmental, economic and social challenges posed by climate change. Over the years remarkable people connected to the prize have devised innovative ways of reducing damage done to the environment and human health, while still fostering economic growth, improving energy security and access to basic services.

The prize provides a platform for information exchange and knowledge growth. From those with the spark of innovation right through to those young people who have the initiative to learn something new – the Zayed Future Energy Prize continues to forge a path to ensure a sustainable future for everyone across the globe.

منذ انطلاقها في عام ۲۰۰۸، ترك القائزون بجائزة زايد لطاقة المستقبل أثرا إيجابيا على حياة أكثر من

# Γ • Γ, Γ • 0, • • •

شخص حول العالم. إذ ساهمت إنجازاتهم بتيسير الوصول إلى مياه الشرب النظيفة، ومصادر الطاقة المتجددة فضلاً عن **تبسيط** عمليات الإنارة.



Since its inception in 2008, the winners of the Zayed Future Energy Prize have positively affected the lives of over

## 202,205,000

people worldwide, helping them
to gain access to clean drinking
water and reliable sources of
renewable energy
and light at the flick of a switch.