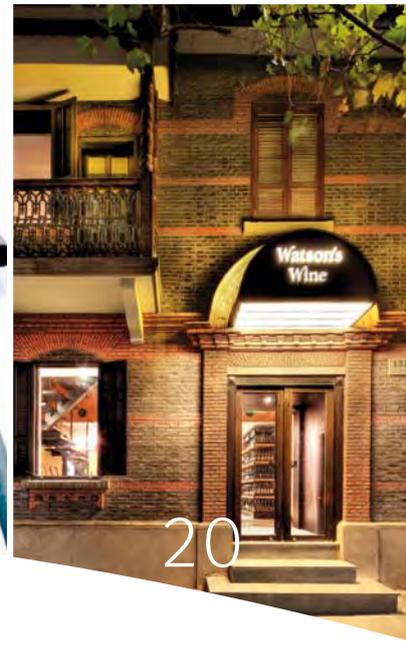
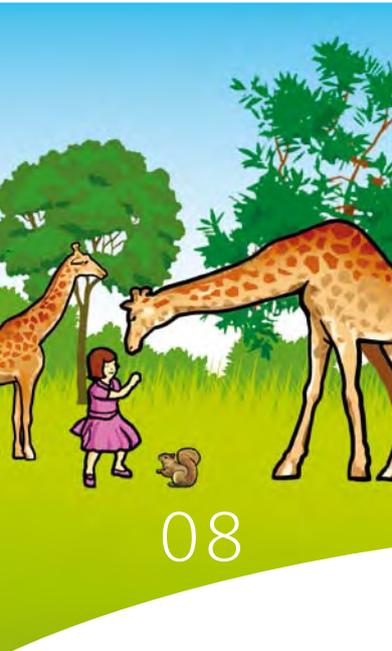




# contents

ISSUE 28 MARCH 2011



## Welcome

IN THIS ISSUE of *Sphere* we are concentrating on responsibility

– corporate social responsibility, responsibility to our fellow human beings and responsibility to our planet. In all these areas, Hutchison's policy is to "think globally, but act locally".

Our cover story examines how HWL employees handle corporate social responsibility and looks into on-going community projects. We then move onto *Love Ideas, Love HK* – a philanthropic campaign launched by Mr Li Ka-shing that has taken Hong Kong by storm.

HK Electric is leading the drive towards clean energy in our city with the commissioning of the Lamma Power Station Solar Power System.

On the telecoms front, we examine the concept of mobile network sharing, a practice that not only saves on energy but also saves consumers money. And finally, we focus on Mainland China's emerging wine market, and how Watson's Wine has risen to the occasion.

We hope you enjoy the magazine. Please send feedback and suggestions to [SphereE@hwl.com.hk](mailto:SphereE@hwl.com.hk)

02

## Newsbites

What's happening in the world of Hutchison Whampoa Limited

08

## Cover Story

### Employees Reach Out

Employees of HWL are keen advocates of corporate social responsibility

12

## Community

### Love is All Around

*Love Ideas, Love HK* is changing the way Hong Kongers think about their community

18

## 3G Trends

### Sharing the Benefits

Mobile and fixed-line telecom operators turn to network sharing

20

## Retail

### A Toast to the Chinese Wine Market

Watson's Wine gears up for increased taste for wine in Mainland China

24

## Energy

### Let the Sunshine in

HK Electric has commissioned Hong Kong's biggest and most advanced Solar Power System

28

## Then & Now

### The Heat is On

Once the exclusive reserve of emperors, hand-held heaters are now for all

Published by Hutchison Whampoa Limited, 22/F Hutchison House, 10 Harcourt Road, Central, Hong Kong. Available on [www.hutchison-whampoa.com](http://www.hutchison-whampoa.com). In-house editorial team: Laura Cheung, Jeremy Lau, Hans Leung, Irene Lau, Sabrina Chan, Mavis Wong and Wendy Luk. Editorial, design and production: Greg Crandall, Teri Fittsall, Sam Or, Virginia Ho, Matt Lee, Vivian Huang and Kelly Cheung – [asiacity](http://asiacity.com) Asia City Media Group. Tel: 2850 5500. Colour separation and printing by bigboXX.com Limited. Copyright 2011 by Hutchison Whampoa Limited. All rights reserved. No part of this magazine may be reproduced without the written permission of Hutchison Whampoa Limited. Opinions expressed herein are those of the writers and do not necessarily reflect the opinion of Hutchison Whampoa Limited. All currency conversions are approximations.

COVER AND COVER STORY ILLUSTRATIONS: BERNARD CHAU



## IN DEEP WATER

**POLAND** The Port of Gdynia Authority and Gdynia Container Terminal have signed an agreement to jointly develop a deepwater berth at the Bulgarskie Wharf of the Port of Gdynia. **P**

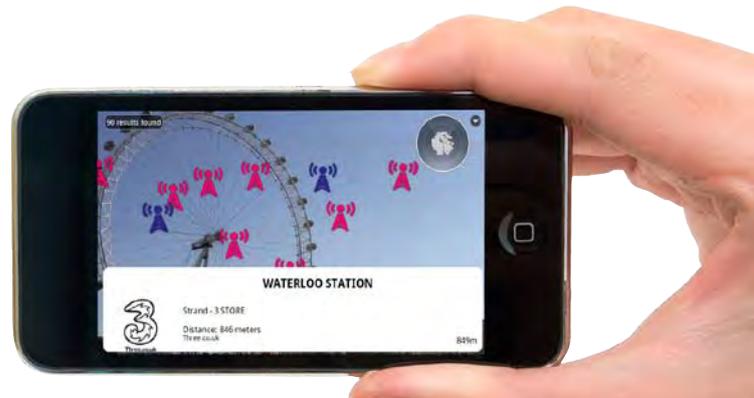


## Movie star via mobile

**INDONESIA** Indonesian film auteur Rudi Soedjarwo has joined with **3** to launch *Giliran Muke Loe*, the first film audition to be held in Indonesia with mediation of mobile Internet. Anyone can upload a casting video, using **3**'s mobile Internet service, to be considered for a role in Soedjarwo's next film which is to be shot this year. **T**

## NETWORK EXPANSION

**UNITED KINGDOM** **3** UK is using a **3** Network Layar App to demonstrate the expansion of its network. The pink sites represent new coverage. **T**



- C** CORPORATE
- P** PORTS & RELATED SERVICES
- H** PROPERTY & HOTELS
- R** RETAIL
- T** TELECOMMUNICATIONS
- I** ENERGY, INFRASTRUCTURE, INVESTMENTS & OTHERS

## Premier Wen gives PARKnSHOP thumbs up

MAINLAND CHINA

Premier Wen Jiabao was welcomed by staff and shoppers when he paid a visit to PARKnSHOP in Guangzhou. He spoke to Chief Operating Officer Han Weizhong about the running of the supermarket and expressed his satisfaction with the quality of the produce and food safety standards at PARKnSHOP. **R**



## THE ULTIMATE GOLD CARD

VIETNAM Vietnamobile's latest campaign, a promotion called "Speak Your Way to Gold", has really got people talking. The Grand Prize for the campaign is a gold sim card worth VND1 billion (USD48,000) and weighing more than a kilogramme. **T**

## Hope for Guizhou

MAINLAND CHINA

Employees of TOM Group, China Entertainer Television Broadcast Ltd and Yangcheng Advertising Ltd joined the Grace Charity Foundation in visiting needy schools in Guizhou. The volunteers distributed RMB140,000 (USD21,300) of financial aid, and delivered blankets, scarves, stationery and vitamins to students and families. **I**





## Trial Run

**MAINLAND CHINA** Commercial trial operations have commenced on the final container berth of Yantian International Container Terminals' Port Expansion Project. **P**

## QUICK CHARGE

**HONG KONG** HK Electric has opened its first electric vehicle (EV) quick-charging station in Ap Lei Chau. It takes only 30 minutes to charge up an EV. The company now operates seven standard charging stations on Hong Kong Island, enabling users to fully charge an EV in six to eight hours. **I**



## The wonderful world of Andy Lau

**HONG KONG** Film and pop superstar Andy Lau celebrated his 30th anniversary in show business at the Wonderful Worlds of Whampoa. Thousands of fans and shoppers turned out to mark the big occasion with him. **H**



- C** CORPORATE
- P** PORTS & RELATED SERVICES
- H** PROPERTY & HOTELS
- R** RETAIL
- T** TELECOMMUNICATIONS
- I** ENERGY, INFRASTRUCTURE, INVESTMENTS & OTHERS



## A NEW PAGE

**HONG KONG** More than 2.2 million English eBooks, including best-sellers and classics, are now available to Hutchison's 3ree Broadband subscribers through an exclusive partnership with Kobo, which boasts the largest English language eBooks archive in Hong Kong that is fully supporting iPhone, iPad, Android and PCs. What's more, 3ree Broadband customers can enjoy exclusive discounts on Kobo eBooks. **T**



**3香港夥拍全球最大電子書商之一Kobo**  
強勢推出逾220萬本英文電子書 3客戶獨享65折及精彩優惠



## 500 REASONS TO CELEBRATE

**POLAND** Rossmann Poland celebrated opening its 500th store in November, at the Royal Castle in Warsaw. A party was held to mark this milestone, which is in line with A S Watson's expansion strategy of reaching 10,000 stores this year. **R**

## Beauty on parade

**MAINLAND CHINA** Guests at Le Parc and Regency Oasis had a lovely surprise when 10 contestants in the Miss International Beauty Pageant dropped by for a chat. The aim of the informal visit was to help the beautiful girls to improve their Putonghua. **H**



## Think pink

**SINGAPORE**

Watsons Singapore has adopted the Breast Cancer Foundation as its official charity, donating SGD80,000 (USD62,500) so far. All 102 stores in Singapore have been involved in a variety of fund-raising activities including selling pink ribbon pins and organising the Watsons Pink Ribbon Walk/Run 2010 in October. **R**

## Power Up

UNITED KINGDOM

Cheung Kong Infrastructure and Power Assets, together with the Li Ka Shing Foundation, have acquired 100 per cent of EDF Energy plc's UK electricity networks. Serving around 7.8 million customers, these networks provide nearly a quarter of the electricity in the UK. A new company, UK Power Networks Holdings Limited, was formed to own and manage these assets. **I**



- C** CORPORATE
- P** PORTS & RELATED SERVICES
- H** PROPERTY & HOTELS
- R** RETAIL
- T** TELECOMMUNICATIONS
- I** ENERGY, INFRASTRUCTURE, INVESTMENTS & OTHERS

## WHAT'S NEW WHITE CAT

MAINLAND CHINA Shanghai Hutchison Whitecat Company Limited, one of the best-known household brand name images in China, has launched a new brand identity with a 3D cat image and the introduction of new product lines including air freshener, hand wash and detergent. **I**



## Christmas food and fun

HONG KONG Christmas is the time for giving, and a group of volunteers and chefs from Harbour Plaza North Point did just that when they organised a Christmas party for trainees at Hong Chi Pinehill Integrated Vocational Training Centre in Tai Po. The trainees were taught to make delicious Tiramisu and everyone joined in singing Christmas songs. **H**



- 1 Hutchison Telecommunications Hong Kong Holdings has won the Consumers' Choice Award at Hong Kong Corporate Branding Awards. **T**
- 2 Harbour Plaza 8 Degrees celebrated its first anniversary with a slew of awards, including being named Best Mid-Range Hotel in Hong Kong in the Individual Hotel Awards category of the TTG China Travel Awards 2010, and Most Popular Hotel 2010 at the Guangdong International Tourism and Culture Festival's 2010 Star Hotels Show. **H**
- 3 Marionnaud France was the proud winner of the Retailer of the Year France 2010, presented by Q&A Research and Consultancy. **R**
- 4 Harbour Plaza Hotels and Resorts also received several awards, including the 2010 Asian Excellence Brand Award, and was named the Best Local Hotel Chain in Asia-Pacific Region at the 21st Annual TTG Travel Awards 2010 Ceremony. **H**
- 5 A S Watson was named Asia's Best Brand Award for excellence in branding and marketing and Asia's Best Employer Brand Award at the CMO Asia Awards. **R**
- 6 The Polish daily newspaper *Rzeczpospolita – Rzecz o Biznesie* presented Marionnaud Poland with its prestigious Perfumery Chain – Gold Laurel 2010. **R**
- 7 *FinanceAsia* ranked HWL No. 1 in its 2010 Conglomerate (as rated by revenue) and No. 22 as ranked by Market Capitalisation. **C**
- 8 Jakarta International Container Terminal has been named Terminal Operator of the Year 2010 by the Indonesian Shipowners Association. **P**
- 9 Kruidvat Belgium had the honour of being named the Best Retail Chain Store in Belgium. The award was given by Q&A Research & Consultancy. **R**
- 10 PARKnSHOP Hong Kong was the proud winner of the Consumers' Choice Grand Prize in the Department Store, Supermarket and Convenience Store Category of the Hong Kong Corporate Branding Award 2010, as presented by the Chinese University of Hong Kong and *Ming Pao Daily News*. **R**
- 11 ICI PARIS XL Belgium & the Netherlands won the Best Perfumery Chain Award presented by Q&A Research Company on shopping. **R**

# Employees reach Out

Hutchison Whampoa encourages employees to become involved in their community, wherever they are around the globe

*By Mark Redvers*

WHETHER IT IS HELPING to rebuild an earthquake-damaged school in China, raising awareness of the plight of endangered species, or encouraging elderly people to learn to use the Internet, employees of Hutchison Whampoa Limited worldwide are actively involved in numerous community projects.

Employees around the world are not only known for their hard work and professionalism but are also active ambassadors in their communities, giving back in a huge variety of ways.

The range of HWL projects worldwide is eclectic, to say the least, but all have the common factor of putting back into society; it is particularly rewarding for employees to see, first hand, how their efforts are making a difference to the less fortunate: from taking the initiative to targeting a particular project and becoming actively involved, meeting

the beneficiaries and, wherever possible, witnessing the end result.

HWL encourages employees in their local branches to use their own initiative to provide the best services for people in need. The implication is: think globally, act locally.

## Focus on children

Help given to a school in an earthquake-ravaged region of China is a typical example of how HWL staff have rallied round to aid others. Employees at Shanghai Hutchison Whampoa Pharmaceutical were keen to help children affected by the devastating earthquake in Sichuan province three years ago that killed tens of thousands of people, and destroyed homes, offices and schools.

Staff at the Shanghai company targeted a village where the elementary school had all but been destroyed by the



killer quake. Working with the Project Hope charity, employees and the company jointly funded a new, two-storey school building with eight classrooms which has already been completed. Work on a library and a teachers' dormitory is currently underway.

To show gratitude for the help, authorities decided to name the school the Shanghai Hutchison Whampoa Pharmaceutical Limited Hope Elementary School. Around 200 pupils will now be able to attend school in the isolated, dirt-poor township of 2,000 people.

"The project gave us an opportunity to understand the needs and the reality facing people in the rural areas," said one involved staffer. "The disparity left a strong impression on all of us and caused us to think more critically. It taught us that we ought to be grateful for what we have."

Disadvantaged children are the beneficiaries of many Hutchison initiatives – whether it be those effected by disaster, poverty or lack of education. Our Chairman Mr Li Ka-shing is a strong believer in aiding the young so they can reach their full potential. He has often stated that knowledge is the foundation for future innovation and invention.

This is amply demonstrated by the long-standing Dock School programme, under which Hutchison Port Holdings member ports across the globe are encouraged to adopt local schools in need of financial assistance. Contributions to these schools have included funding construction projects, scholarships, school supplies and books, computer purchases and educational activities.

While the Dock Schools are a long-term, ongoing programme, other projects to help youngsters are formulated as new needs arise. A fine example is Watsons Spring Bud Scholarship Project, which provides more than RMB200,000 (USD30,000) to give scholarships to promising, hard-working students from poor families at two

Chinese schools. Key members of the fund-raising and co-ordinating team witnessed first-hand the beneficial effects of their efforts.

"We were glad to talk and interact with the students directly, handing to them brand new stationery and books," recalled one team member. "This charity project enables the poor but hardworking students to continue their studies, which may change life for them and their family in the long run.

"Being involved in the project confirmed the adage that it is, indeed, better to give than to receive. The charity visit gave me courage to face challenges in daily work, and recharged me with optimistic energy."

### Keep smiling

Children are also the focus for the efforts of employees of Watsons Malaysia, who are bringing a smile to the faces of less fortunate youngsters – literally. In the past four years, Watsons Malaysia has worked with Ronald McDonald House Charities on the "Give the Gift of Smile" programme, sponsoring the costly corrective surgery for children born with cleft lips and palates. A total of HKD80,000 (USD10,000) was raised, money which paid for eight children to have the life-changing surgery.

"By changing the lives of these children, it will change ours as well," said one of the Watsons Malaysia organisers. "By pro-actively engaging in charity programmes such as 'Give the Gift of Smile', we will also foster a closer tie with our community, build a strong team spirit within our organisation and more importantly, help those children born with cleft lips and palates.

"In the past four years, our teams have been actively supporting children's causes and 'Give the Gift of Smile' will definitely be an ongoing project for us. It is vital that corporate ethics go beyond superficial window dressing, lip



## The HWL schemes are incredibly varied but they do have a **common theme** of making **life better** in the communities they live and work in.

service and cheque-book philanthropy which would prove detrimental in the long run to any good intention.”

Staff members also think of creative new ideas that captivate the public. A prime example of that is a scheme dreamed up by staff at Hutchison 3G in Austria, the CliniClowns, whereby seriously ill children are visited by clowns. So far the 65 CliniClowns have made more than 1,000 visits to 37 hospitals in the country, providing much-needed light relief for children with serious medical conditions.

Similarly inventive thinking is applied by HWL staff at the company’s home base in Hong Kong. Initiatives have included encouraging staff to give blood, hotel chefs cooking their signature dishes to raise funds for special-needs children and an invitation to more than 1,000 underprivileged families to watch a world-class volleyball event.

### **Aiding the unemployed**

Helping the less fortunate is a recurring theme. Sweden is one of the most affluent countries in the world, yet some people still fall through the cracks in society; staff at the 3 telecom company are volunteering as mentors for unemployed youths, hoping to provide them with guidance and support.

It is a sterling example of employees’ hard work and professionalism in action, as the 3 organiser of the scheme explained: “Hopefully we help these kids in understanding the informal rules that apply to work life. By doing so we like to think that they have an increased chance of getting a job. We also try to motivate them to apply for higher studies.

“By teaching them about all the different roles we have at 3 they might discover an interest they didn’t know they had. Also, as a company, in order to strengthen our human capital, we need to find new ways to obtain and train our future talents. This is a good way to do that.”

### **Helping the forsaken**

Staff at Marionnaud in Portugal came up with a novel way of raising money – and awareness – for the plight of local orphans and animals at risk of extinction. The scheme involved selling plush toy giraffes, with the resulting funds used to help orphans and endangered species; a whimsi-



cal touch was a competition to choose the giraffe's name, Marionilde.

"The Marionnaud Giraffe is a way to protect an animal at risk of extinction, help the Lisbon Zoo and help a charity organisation that supports orphans all at the same time," said one of the participants.

"Our customers loved the idea and our staff are proud of having helped. It is good to be able to support the community and show the bright side of being human. It helps create a better world, especially for the orphans, or children with problematic families, and helped our customers to act for the good of others and be good citizens. Customers often identify with our principles and hence develop a sense of loyalty towards Marionnaud."

Staff were so enthused by the campaign that they have continued to raise funds for orphans, most recently with a Christmas dinner auction, where pieces of art made by different Marionnaud departments were sold to raise funds.

### All over the world

Older people were targeted for help by staff of 3 in Ireland when the company launched a competition to find the country's most inspirational "silver surfer", showing that age is no barrier to mastery of the Internet. In Panama, employees of the Panama Ports Company and their families joined hands with Smithsonian Tropical Research Institute to carry out a beach and coastal clean-up with the com-

pany's scuba divers carrying out underwater duties. The great outdoors was also the target of a campaign by Husky Energy in Canada, which has an ongoing partnership with Calgary Zoo to return ferrets to the wild.

In Australia, poor Aborigines in remote regions are being helped by a Vodafone Hutchison Australia initiative. The Red Dust Role Models scheme seeks to improve the health and wellbeing of disadvantaged youths in remote communities. Positive role models from the fields of sport, music, art, health and business take part in tours to these communities, encouraging healthy lifestyle decisions and promoting education. Each year 20 of Vodafone's employees get the opportunity to see the effects for themselves, by participating in a tour.

The HWL schemes are incredibly varied but fundamentally, their underlying theme focuses on making lives better in the communities they live and work in. There is no secret ingredient in giving back to society and making the everyday lives of individuals better than yesterday. The key component simply is employees' true sincerity coming from within, not out of duty, but from their hearts. Their experiences of witnessing people who are struggling, galvanises them into taking action that helps improve the lives of society's less advantaged individuals – it may be an idea that occurs on the spur of the moment, yet it can have an impact that will last a lifetime. 



# Love is All Around

Mr Li Ka-shing's philanthropic programme *Love Ideas, Love HK* has reshaped the way Hong Kongers think about community spirit

By Teri Fittsell



TWO WORDS sum up the overwhelming feeling at the *Love Ideas, Love HK* Sharing Session in December – joy and passion. Representatives of the 177 winning projects in this community-spirited programme were overjoyed at having won enough votes to put their ideas into action through the generosity of the Li Ka Shing Foundation (LKSF) and every one of them was truly passionate about those projects.

Perhaps the electricity and excitement in the air should not have surprised anyone – for since its launch in September last year, LKSF’s *Love Ideas, Love HK* programme has lit a spark in this city – a spark of altruism and community spirit that some doubted even existed.

Hong Kong has a reputation for its wealth creation, so it is inspiring to see how *Love Ideas, Love HK* brought out a different aspect of the city’s character – social entrepreneurship instead of financial entrepreneurship. The programme is actually reshaping the way people think about caring for others.

Comedian/radio DJ Lam Chiu-wing, who won funding for his idea to cheer up patients by doing stand-up comedy in hospitals, summed it up when he said: “The programme has really got people thinking creatively about how to help their community. It has created a platform for selflessly helping others and provided the means to do so – I think that’s why it has sparked a whole new way of thinking in Hong Kong. It’s truly inspiring to see the innovative ways people have found to help those in need.”

Mr Li Ka-shing made a speech at the sharing session in which he quoted former United States President Theodore Roosevelt’s famous *In the Arena* speech, originally delivered at the Paris Sorbonne University in 1910, that “The credit . . . belongs to the man who does actually strive to do the deeds.”

For that is what this HKD300 million philanthropic campaign, whose umbrella title is *Love HK Your Way!* is all about: giving people the means to help each other. It goes further than just financial support, too. At the sharing session, representatives from Hong Kong Council of Social Service (HKCSS) and charitable body St James’ Settlement (SJS), were on hand to advise people how to implement their plans successfully, and these two bodies will actively help winners to put their ideas into action.

After all, most of the winners are new to philanthropy and do not have experience in running a charitable programme. During a speech Josephine Lee, Senior Manager of Corporate Venture-Partnership & Alliance at SJS, talked about what it means to be a charity. She said the *Love Ideas, Love HK* programme advocated care for the community and encouraged creativity, which dovetailed nicely with SJS’s own objectives. She also offered practical advice, reminding people to plan carefully how to allocate the money. “Be clear about your objectives, stick with your original plan.”

The programme has also been given the support of the HKCSS, whose Business Director Cliff Choi said at the sharing session the Council was delighted that the programme connected and mobilised the public to be more thoughtful to those in need. He urged the winners to call the Council if they ran into difficulties and needed help. “Tell us early if you discover you will have cash left over from your project. We can advise you how best to use it to further the benefits to others,” he said.

Ms Lee from SJS also warned that the work can be tiring, but added: “Please call us immediately if you

“[The programme] has created a totally **original** way for corporations, individuals and social organisations to **work together.**”

*Opposite: Mr Li Ka-shing gives a warm welcome to the enthusiastic winners of the first *Love Ideas, Love HK* programme.*





DJ Lam Chiu-wing aims to cheer up patients by doing stand-up comedy in hospitals.



feel you are losing sight of your goals or losing your passion for your project.”

The ideas that *Love Ideas, Love HK* sparked are certainly varied and imaginative. The range is astounding: from providing specially equipped transport to enable victims of spinocerebellar ataxia to participate in various activities, through creating a rock music class to keep teens creatively occupied, to

DJ Lam’s idea for performing stand-up comedy in hospital wards.

Interestingly, the reasoning behind his concept was largely fear.

“I’ve always feared hospitals,” explained DJ Lam. “But, at least when I visit I can always leave. However, there are many patients who have to stay for long

periods of time. I wanted to overcome my own fear of hospitals, but I wasn’t sure what I could bring. Then I thought – I am good at telling jokes, so why not perform stand-up at hospitals?”

Already, the Queen Mary Hospital has contacted him to arrange some performance dates, and he is spreading the word to other hospitals which are interested. “I remember watching the movie *Punchline* in which Tom Hanks’ character says something like if you can make a room full of patients laugh, then you can make anybody laugh,” said DJ Lam.

One of the most encouraging aspects to emerge from the wave of social entrepreneurship that *Love Ideas, Love HK* set in motion was an ability to think outside the box and beyond the usual “causes” and bring to the fore needs that have otherwise gone unnoticed. For instance, for students at the Fresh Fish Traders School, most of whom are from low-income families, scraping together the HKD900 to buy a new uniform can be difficult.



School principal Leung Kee-cheong believes *Love Ideas, Love HK* draws attention to lesser known causes.



Carmen Chan, whose project will aid stray dogs and cats in Yuen Long, brought along some of her four-legged friends.



Identifying this need, school principal Leung Kee-cheong came up with an idea to supply and recycle uniforms to students in the school. In the past older students leaving the school have sometimes donated their uniforms to the younger kids. But now, with the help of the money donated by the LKSF the school can buy enough uniforms for all.

Under the programme, students still have to pay for the uniforms but only approximately HKD20 for each set, a fraction of the real cost. This money is then refunded when they return the uniform at year-end. Asked why the uniforms couldn't now simply be given to the students for free, Mr Leung explained that if there is a nominal fee, the parents still qualify for the school uniform subsidy from the social welfare.

Mr Leung believes strongly in sharing and in promoting real community spirit. That is why he was particularly taken with the *Love Ideas, Love HK* programme. "In short," he said, "I love it!"

"The programme promotes creativity and draws attention to lesser known causes. It encourages ordinary people to take part – either by submitting ideas or by voting." He also feels that it is an impor-

tant lesson in how mega corporations can give something back to society and he hopes others will follow suit.

Carmen Chan's *Love Ideas, Love HK* project is certainly practical. She aims to alleviate Yuen Long's stray dogs and cats problem by rounding up the animals and having them neutered. Previously, she has been doing this with a group called Happy Animals, but their efforts have always been restricted by lack of funds. "It costs HKD1,000 to neuter a dog and sometimes several thousand to treat them."

She applied for the grant not only to raise money for the vets' bills but also to raise awareness about the neuter and return programme so that hopefully the government will adopt such a programme as its official solution to the problem of stray animals in Hong Kong.

At the moment, the policy is to round up stray animals and destroy them. "In 2009, 13,000 dogs were put to death by the government," said Ms Chan. "We are proposing a more humane treatment of these strays."

She sees the *Love Ideas, Love HK* programme as a great opportunity and is thrilled that it has inspired so many people into taking action to help others. As for next round. . . "I have tons of ideas!" she smiled.

One of the more unusual ideas submitted to last year's programme came from the Hong Kong Youth Employment Network (HKYEN) which proposed a scheme, called Working Reality, to help students about to leave school to prepare for the workplace. It's a simple idea, but voters liked it because it's an area that few people actually think about.

Wong Man-shun of HKYEN explained how the idea was developed. "We realised that students nowadays don't learn about work ethics, work environment and dynamics. Through this programme students will set up their own 'companies' and learn about human resources management, sales, marketing, promotions and actually get to practise them."

HKYEN aims to begin the workshops, targeting Form 5 students, in March this year in 20 schools, enabling about 4,000 students to take part. "We want to inspire them to think about their career development," said Mr Wong.

He thinks the beauty of this idea is that it is ongoing, students can run with it and really get to know how the workplace works. He feels that *Love Ideas, Love HK* is a similar "ongoing" project, which is why it inspired him in the first place. "It is not only very creative and innovative, but also very transparent," he said. "I love the way you can see how new ideas will now develop from other ideas already submitted. People are looking at this first programme and already thinking ahead to how they can take the ideas further forward next time. It has created a totally original way for corporations, individuals and social organisations to work together."

The emphasis is certainly on originality for Making Their Dreams Come True, an idea

submitted by the International Church of the Foursquare Gospel HK District Ltd. If it weren't for *Love Ideas, Love HK* this is the kind of idea that would probably never get funding from more conventional channels – but it's a cute, fun idea and voters deemed it worthy of support.

Bearing in mind that it is easy for old people to become isolated in their own homes as they become older and less mobile, the church proposed a project to get them thinking about countries they have always wanted to visit and then holding special themed evenings based on those countries, including the national food, talks, music, etc. The church will also take photos of the senior citizens in front of backdrops of the countries (for example in front of the London Bridge) and deliver enlarged prints of the pictures to their homes.

Wong Shui-lin of the church believes the idea will encourage senior citizens to think beyond their own daily boundaries, give them a bit of fun and “enable the church to gain a better understanding of their needs.”

Hong Kong's elderly citizens were also the inspiration for *The Last Photo*, a project submitted by students Gabriel Yu and Benson Hung. They propose taking photos of elderly people to be used as the display photo at their funerals. It may seem like a rather depressing, even macabre idea, but as the two young lads discovered it is a service rarely provided yet there is a big demand for it.

The idea was born after Mr Yu met a film director in Australia who was making a documentary on funerals. “It sparked my interest and made me realise this was an area we could explore,” he said.

Mr Hung added, “we noticed that senior citizens tend to be forgotten in Hong Kong. We actually had the idea before the *Love Ideas, Love HK* programme was launched, but realised it would give us the means to put our idea into practice.”

“So far two nursing homes have approached us since we won the funding,” said Mr Yu. “We are buying equipment that is easily portable so we can also visit people in their own homes. We intend to proactively seek senior citizens in need of this service.”

The two lads believe that without the unique opportunity offered by *Love Ideas, Love HK*, their project may never have got off the ground. “What is great about the programme is there is no mandate or strict framework on what needs to be done. It allows people from different walks of life to use their creativity. Some ideas simply would not have secured funding through conventional channels . . . *Love Ideas, Love HK* has meant the small ideas as well as the big ones can flourish,” said Mr Yu.

“It has enabled us to do three meaningful things,” added Mr Hung. “One, to prove to others that the post-80s generation can contribute in a meaningful way. Two, to inspire other young people to contribute time and energy to society. And three, to provide an immediate service for senior citizens.

“Right now, all my friends are talking about *Love Ideas, Love HK*. It has really ‘infiltrated’ society and had an immediate impact on people in need – not at a macro level, but at a micro level. It has also shown us that the biggest – that is, a mega corporation – has not forgotten the smallest in our society.” 

**Making Their Dreams Come True gives the elderly a “virtual trip” to their favourite destinations worldwide.**



**Without *Love Ideas, Love HK*, students Benson Hung (left) and Gabriel Yu would never have been able to put their Last Photo service into action.**





## How Love Ideas, Love HK works

The premise for the programme was simple – to help those in need. And the idea behind *Love Ideas, Love HK* was to ask the public who exactly was in need, how could they be helped, and then to give them the funds necessary to do the helping.

With *Love Ideas, Love HK*, anyone could put forward ideas for causes they thought worthy of support – the only real criterion was that they must benefit the local community. People had more than a month to submit their ideas, then between 1 and 21 November anyone could vote for the projects they felt most deserved funding. Winners would receive the funding they had requested.

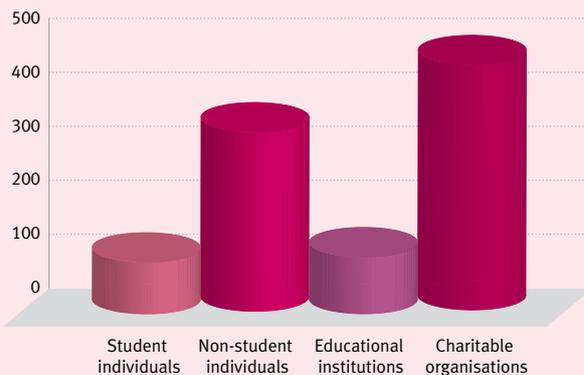
A total of 1,029 project ideas were received by the LKSF, of which 674 were considered eligible and uploaded for voting. Mr Li Ka-shing took a personal interest in the programme and he chose 12 projects that had touched his own heart. After the final count, 177 emerged as winners who would receive the funding they had requested to undertake their project.

*Love Ideas, Love HK* is part of a HKD300-million campaign called “*Love HK Your Way!*” to engage Hong Kong citizens in charitable activity and to elicit innovation and creativity to make Hong Kong a better place to live.

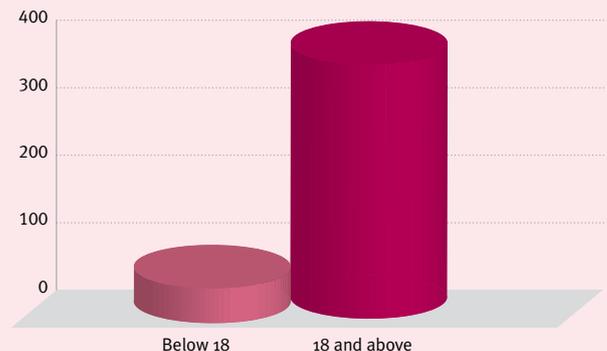
The following are some statistics about the first round of applications:

Total number of applications received **1,029**

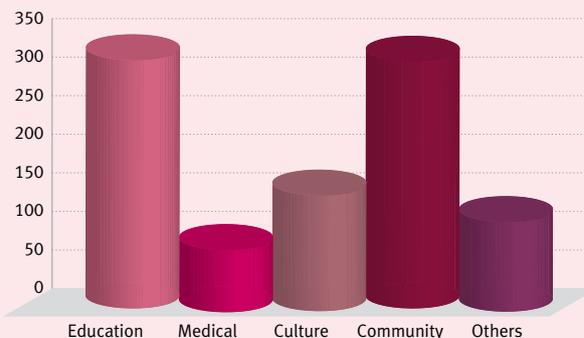
### Applicants by category



### Individual applicants by age



### Applications by project nature\*



Eligible applications **674**

Number of winning projects **177**

Grant amount awarded **HK\$28 million**

\* Remarks: Beneficiaries of projects include senior citizens, teenagers, people with disabilities, minorities, new immigrants, low-income families, prisoners, etc. There are also projects advocating cultural development, music, animal care and environmental protection.



# Sharing the benefits

Forward-looking mobile and fixed-line telecom operators are turning to network sharing as a creative way to bring better services more economically to their customers

*By Jorge Felicidad*

WITH THE EXPENSES INVOLVED IN BUILDING, upgrading, operating and maintaining telecommunications networks continuing to escalate over the past decade, it could only be a matter of time before carriers found more creative ways to fulfill their development agenda at lower cost.

One of those ways has been the development of infrastructure-sharing arrangements implemented by a growing number of forward-looking mobile and fixed-line network operators.

In a report, management consulting firm Booz Allen Hamilton said network sharing was first implemented in 2001. "With the hype of 3G licensing in Europe and the big investments made in licence acquisition, many operators were under pressure to share deployment costs and thus share infrastructure," Booz Allen Hamilton said.

Anticipating the rapid growth of mobile internet data usage, operators 3 UK and T-Mobile pooled their 3G infrastructure in December 2001 in a 50-50 joint venture company called Mobile Broadband Network Ltd (MBNL).

The purpose was to create Britain's best 3G network more rapidly and more efficiently than either party could do alone. The resulting shared network requires fewer masts, consumes less energy and provides customers with superior mobile broadband service.

MBNL awarded Nokia Siemens Networks a GBP400 million (USD600 million) contract that included the provision of 3G radio network infrastructure, mobile network planning, implementation, optimisation and maintenance. The joint network infrastructure programme was slated for completion at the end of last year.

"The growth in mobile broadband usage clearly provides challenges for networks," Emin Gurdenli, technical director at T-Mobile UK, said. "These are challenges we have anticipated."

In August 2004, Hutchison 3G Australia and Telstra Corporation committed to jointly own and operate a 2100-megahertz 3G network. Hutchison 3G later merged with Vodafone Australia to establish Vodafone Hutchison Australia (VHA).

## “3 Austria has entered a deal whereby other companies will modernise their 3G network then they will lease back the infrastructure and operate it.”

Last October, Telstra and VHA agreed to conclude their network sharing deal next year. Following that resolution, the network assets and the spectrum from the shared 2100MHz network will be incorporated into other networks that Telstra and VHA operate.

Booz Allen Hamilton said: “Both fixed-line and mobile operators should consider infrastructure-sharing as a medium to save costs and focus more attention on customer-facing activities, in which innovation and differentiation are the main competitive advantages.”

Amid discussions on how difficult it will be to get funding for constructing multiple 4G networks worldwide, market research firm Ovum has urged the telecommunications industry to start contemplating a future where network sharing is the norm.

ABI Research indicated that there were more than 500 3G network commitments, and over 300 4G announcements (both LTE and WiMAX) worldwide as of November last year. That equates to more than two billion of the world’s population being covered by high-speed data networks.

In a report, management consulting firm Oliver Wyman provided five operating models typically considered by carriers looking to forge network-sharing deals. These are:

1) A joint venture (for assets) between operators, in which carriers consolidate their existing networks in a joint asset company, whose day-to-day operations and staff are retained by the two operators.

2) A joint venture plus common service company, in which the carriers jointly build or combine their existing networks in a joint company like the first model. Day-to-day operations and staff, however, are transferred to a single service company, also a joint venture.

3) Vendor-led network sharing and operations and maintenance outsourcing, in which operations and staff of a joint-asset company are the responsibility of an outside contractor or managed-services vendor.

4) Managed capacity, in which network ownership is transferred to a vendor. Operators pay the vendor on a usage or capacity provision basis. Operations and staff are outsourced.

5) One operator becomes a mobile virtual network operator, in which one of the carriers in a joint-asset company relinquishes its operations and becomes an MVNO. This is an operator that does not have its own licensed frequency allocation or radio spectrum. Instead, it buys capacity and

services wholesale from an existing carrier and resells them under its own brand.

According to Oliver Wyman, no network-sharing operating model is perfect as each model comes with trade-offs. “Differences in these trade-offs originate from choices about who in the new partnership will own which assets, handle operations and maintenance services, and be responsible for employment of the staff teams,” it said in a report.

A creative deal was forged on 15 December last year between Chinese telecommunications equipment manufacturer ZTE, Hutchison Whampoa and CDB Leasing Co, a unit of China Development Bank for the network assets of mobile operator 3 Austria.

Under this arrangement, CDB Leasing and ZTE would take the 3G network and modernise it, while 3 Austria will lease back the infrastructure and operate it. “This step helps us to reduce costs long-term and at the same time improves our capacity,” Jan Trionow, CEO of 3 Austria said. “We are convinced that this model will give us an advantage over our competitors and massively benefit our customers.”

With this deal, 3 Austria will be able to pass back the reduced costs in terms of lower tariffs to its customers and 3 Austria users will also have state-of-the-art technologies at their disposal.

According to Ovum senior analyst Emeka Obiodu, network sharing is the inevitable way forward: “If taken to its logical conclusion, this new scenario can lead to the prospect of a single mobile network which is then shared by multiple service providers in the market – effectively the same format used for utility services in other infrastructure-heavy sectors such as fixed-line telephones, railways, electricity and gas networks.” 





# A Toast To the Chinese Wine Market

Mainland China has recently acquired a keen taste for wine. Watson's Wine is all set to meet the needs of this emergent market

*By William Martyn*

IN CHINA much can change in a comparatively short time. Ten years ago Western grape wine was a marginal drinks category for the country's 1.3 billion potential consumers. Although there was both production and consumption, it was nothing to compare with the huge markets for beer and local and imported spirits.

Today all eyes in the world's wine trade are on the emergent Chinese market, which Watson's Wine has just entered as a retailer with its first outlet in Shanghai.

"If you look at Hong Kong you can see a bit of a preview of how China will evolve, even though Hong Kong at the moment is a much more sophisticated market for wine than China," said James Hepple, Watson's Wine Operations and Marketing Controller.

"There is still a preference for Bordeaux and a fascination with French wine which will be there for a while yet."

Although new markets usually start with cheap, sweet, white wines, and move towards drier, more sophisticated and more expensive reds, China started with top end red Bordeaux. They also usually take many years to develop a base of regular drinkers, but in the major Chinese cities this has happened virtually overnight.



**Watson's Wine has substantially increased its retail presence, with the opening of five new shops, including one in Shanghai.**

According to the latest study conducted by International Wine and Spirit Research (IWSR) for the wine and spirits trade fair organiser, Vinexpo, from 2004 to 2008 China's consumption of wine almost doubled, increasing by 80 per cent.

Between 2009 and 2013 consumption is projected to increase by 31.58 per cent to reach 1.26 billion bottles – a figure almost equivalent to one bottle annually per capita for the entire population of the country.

China is now the eighth largest consumer of wine in the world, and by 2013 is expected to rank seventh, with annual consumption of more than 100 million nine-litre cases.

Not only has the country suddenly become the focus of attention for wine producers all over the world, but the sheer scale and scope of the Chinese market has raised the importance of wine exports as a national priority. President Obama himself has said that he wants to see US exports of wine to China double within five years.

Australia, which currently ranks second only to France as a supplier to China, doubled exports to 46 million litres in 2009-2010, and China is now the biggest export market for Bordeaux outside Europe – partly due to a contraction in the UK and US markets during financially hard times, but also to phenomenal sustained growth in consumption in cities such as Beijing, Shanghai and Guangzhou.

Wine appreciation is an area in which China has followed Hong Kong's lead. The city now ranks as the leading wine market in Asia with annual per capita consumption of 3.6 litres among residents of legal drinking age. This puts Hong Kong significantly ahead of both Japan and Singa-

pore, the other most mature markets in the region, where per capita consumption is 2.5 litres and 2.1 litres per year respectively.

It is fair to say that Watson's Wine has been one of the most important contributors to building Hong Kong's wine culture. Moving from its initial market position as a wine merchant covering all price points to its present role as a supplier of fine wines, mostly priced at above HKD200 (USD25.60) per bottle, Watson's is now the city's largest specialist wine merchant with a steadily expanding presence in Hong Kong, Macau and now Mainland China. An excellent range of more modestly priced wines, some previously carried by Watson's, is available from PARKnSHOP.

Wine consumption in Hong Kong increased by 75.9 per cent between 2004 and 2008, and the Vinexpo/IWSR study forecasts that growth will be around 70.8 per cent between 2009 and 2013, reaching 4.793 million nine-litre cases, the equivalent of 57.5 million bottles.

The market received a huge boost when wine tax was reduced to zero in the 2008 budget, and the Hong Kong Government announced its intention to establish the city as "the wine hub of Asia". It has since overtaken London as the world's second most important city for fine wine auctions, and looks set to surpass New York. In value terms, wine consumption in Hong Kong in 2010 surged 72 per cent over

2009 to HKD4.67 billion (approximately USD600 million).

Red wines account for 80.6 per cent of the consumption of all still non-fortified wines drunk in Hong Kong, while white wines represent 16.1 per cent and rosé 3.3 per cent – notwithstanding many proven successful pairings of white and rosé wines with Chinese cuisine. All market segments are growing, but between 2009 and 2013 red wines are expected to grow faster than the others.

Similarly in China red wine consumption accounts for 88 per cent of the overall consumption of wine, but with the increase in women's interest, white is also growing. Between 2009 and 2013 the consumption of white wine is expected to expand by more than 40 per cent.

Although consumption of high end wines is French-dominated – the leading Bordeaux Chateaux are recognised as lifestyle defining brands in the same way as Louis Vuitton and Mercedes-Benz – wine made, or at least bottled, in China still dominates the market, accounting for almost 90 per cent of national wine consumption.

They are expected to grow at a rate of 26.7 per cent between 2009 and 2013.

The market for imported wines however is

growing faster. Their consumption increased fourfold between 2004 and 2008, and is expected to grow by 65.6 per cent between 2009 and 2013, reaching 16.765 million cases and accounting for 15.8 per cent of consumption of all wines.

Watson's has been planning its entry to the China retail market for some time. The company already has a wholesale presence in Beijing, Shanghai and Guangzhou, and it was determined that Shanghai should be the first city on the Mainland with its own Watson's Wine store. It opened in December.

"It is in Xintiandi and it's in a heritage building, a stone house or Shi Ku Men, and as well as all the restaurants in that area, and us, there are now Cartier and Louis Vuitton, and the Langham Hotel. It has become a really premium up and coming area and we think it's a great spot," said Mr Hepple.

The store, which is one of the first to reflect Watson's Wine's new design concept (*see sidebar*), occupies two stores spread over 1,500 square feet, and includes a tasting area and two separate sections for high end fine wines.

Watson's Wine is now the agent in China for the Domaine de la Romanée-Conti, one of the greatest estates in Burgundy and an iconic French brand.

"The level of maturity and sophistication in the wine market is at a higher level in Shanghai than in Beijing. That's probably the next step, but we'll prove ourselves in Shanghai first. We'll focus on a few more stores in Shanghai next year, if we can find the right locations," said Mr Hepple.

The store carries no Chinese wines, which according to Mr Hepple are regarded in China "more as a commodity", and like the Hong Kong branches is focused on the higher end wines which have been identified as the fastest imported growth category in the near to medium term.

"We think we've chosen the right time to enter the market," Mr Hepple concluded. 

## The level of maturity and sophistication in the wine market is at a higher level in Shanghai than in Beijing

A comprehensive brand makeover includes a new premium look for the stores – a fusion of modern elements with a heritage feel.





## 2010 – A Good Vintage for Watson's Wine

Last year was an eventful one for Watson's Wine with a substantially increased retail presence in the Hong Kong home market, the opening of the first store on the Chinese Mainland, the construction of a new state-of-the-art Hong Kong warehouse, and a comprehensive makeover for the brand.

"For the last few years, we've had strong double-digit growth. That sped up when tax went down to zero. It gave the market a shot in the arm and therefore us as well," said James Hepple. This year alone we've opened five new shops, bringing the number to 20, so proportionately for us, that's huge. We've opened in Cityplaza in Taikoo Shing, in Times Square, in K11, in East Point City in Tseung Kwan O . . . and in Shanghai."

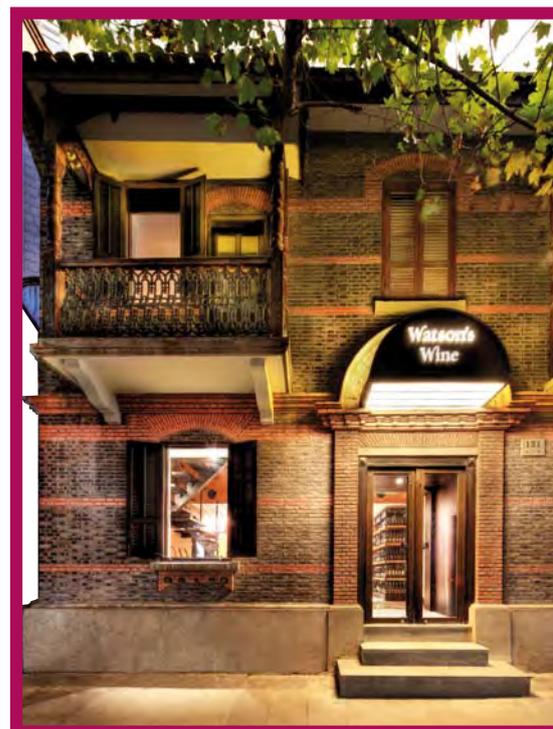
The Shanghai and the K11 stores introduce a new look Watson's Wine – "Cellar" has now been dropped from the name – and reflect the company's confidence in a bright future for the Hong Kong fine wine market. "We're a quality premium wine retailer, and we wanted a look which captured that more – something with real substance," Mr Hepple explained.

"We chose a well known Hong Kong designer, Alex Choi Design, who has gone for a fusion of modern elements with a heritage feel. The lighting feature on the fascia is made with cut wine bottles. He's gone for a modern look with the window displays, but with earthy tones inside, and a ceiling that reflects the look of a traditional French wine cellar with its brick arches. We think it's hit just the right spot for positioning in the market."

Another feature of the store is a wall-mounted iPad, running a new "app" for Watson's customers designed to allow them to browse the store, keep track of Watson's Wine events, and make purchase decisions on line, as well as maintaining their own wine diary.

A new 40,000-square-foot purpose built warehouse in Kwai Chung has also allowed Watson's Wine to bring wines previously stored in France or England to Hong Kong, and to expand its wine storage service to Hong Kong customers. Investors in wine who may wish to resell their purchases at auction at a future date now have an impeccable guarantee of their provenance.

"We've got a base of about 30,000 members, and in Hong Kong people are quite often short of space. We introduced the service so people can buy wine and not be held back by what they can store in their apartments. We have just been certified by the Hong Kong Quality Assurance Agency," stated Mr Hepple.



# Let the sunshine in

HK Electric is leading the drive towards clean energy with the opening of the Lamma Power Station Solar Power System, the most advanced in Hong Kong

*By Robin Lynam*

“MIGHTY OAKS FROM LITTLE ACORNS GROW,” goes an old saying, and a particularly apt one for the formal opening by HK Electric, a subsidiary of Power Assets Holdings Limited on 29 July last year of one of the biggest renewable energy projects yet attempted in the city.

HKD23 million (USD2.9 million) might seem a lot to pay for an acorn, but the effect of putting the Lamma Power Station Solar Power System into commission is estimated to be equivalent to planting 22,000 trees.

The power it generates – while producing no emissions whatsoever – will allow the station to supply electricity to 150 family homes and reduce carbon dioxide output by 520 tons per annum.

The Solar Power System in its present form is capable of generating a total of 550 kilowatts, but plans are already being formulated to almost double capacity to one megawatt by 2012.

That doesn't mean that solar power, or any other kind of renewable energy source, is going to replace coal as the main fuel of the Lamma Power Station anytime soon, though.

The station's capacity is 3,735 megawatts, and wind and solar power technology are still far from a point at which they could conceivably generate that much electricity.

Nevertheless HK Electric has achieved sufficiently promising results from its wind turbine and Solar Power System pilot projects to justify the further development of green energy, and it is clear that environmentally friendly sources will play a growing role in generating electricity for the company's customers in the future.

### New wind installation planned

The Hong Kong government has set a target of having two per cent of the city's energy produced from renewable carbon neutral sources by 2012, and in support of that objective HK Electric is also planning a wind farm off the coast of Lamma Island which is expected to be capable of producing as many as 100 megawatts of clean electricity.

“We believe that solar power and wind power are the most promising renewable sources for the Hong Kong environment,” said Frank Lau Fuk-hoi, HK Electric's General Manager, Projects. “We are at the pilot project stage. We need to gain experience in order to embark on further renewable energy projects in the future.”

Results so far are encouraging. The success of commissioning Hong Kong's first wind turbine – also situated on Lamma Island – as a source of green electricity has provided a spur to the second larger wind based installation.

Better than expected efficiency on the part of the Solar Power System justifies the plan to almost double its capacity.

According to Mr Lau one reason for the better than expected results from the solar panels installation was the decision to use more advanced Amorphous Silicon Thin Film Photovoltaic (TFPV) technology.

“Our supplier, DuPont Apollo Ltd, has a joint-venture manufacturing operation in Shenzhen, a research centre in the Science Park in Hong Kong, and a marketing office in Hong Kong. This is called the ‘Innovation Circle’, joining hands with the Shenzhen manufacturing base so we can have a win-win situation for the two cities. We are the first customer to use this TFPV technology, and they are doing a lot of research work to improve the efficiency of their products,” he explained.

Progress in the field is accelerating. Just months after the installation of the first panels on the roofs of the Lamma power station buildings, newer models offering a higher conversion efficiency have already been developed that will probably be used in the next phase of the system's development.

**Blue skies ahead: The new Solar Power System at Lamma Power Station reduces carbon dioxide output by 520 tons per year.**



According to Mr Lau, there were a number of technical reasons for choosing TFPV panels rather than the more common modules which use thicker layers of crystalline silicon. These are the types of panel used for the 350 kilowatt installation at the Electrical and Mechanical Services Department in Kowloon Bay, and the 198 kilowatt system at the Hong Kong Science Park, both of which were completed in 2005.

“We have been studying these TFPV panels compared with the conventional crystalline silicon panels,” said Mr Lau. “One reason we chose the thin film ones is that in producing those panels much less silicon is required. On the other hand, it takes a large amount of silicon to produce conventional panels, which means you expend a lot of energy on producing the panels and then you wait for several years before the solar energy can pay back the energy used in making the panels. Conventional panels have a payback period of about three or four years, as opposed to one and a half years for PV panels. The panels have a design life of 20 years.

“The second reason is that conversion efficiency of conventional panels drops quickly under high temperatures, while that of amorphous thin film panels does not. Amorphous thin film panels maintain roughly the same conversion efficiency,

so they are more suitable for a tropical or sub-tropical environment.

“Finally, thin film panels maintain a good percentage of conversion efficiency under weak sunlight conditions. The conventional ones do not. That means thin film panels can harness more energy over a year.”

HK Electric’s findings so far are that better than expected power output can be achieved in conditions of low irradiance.

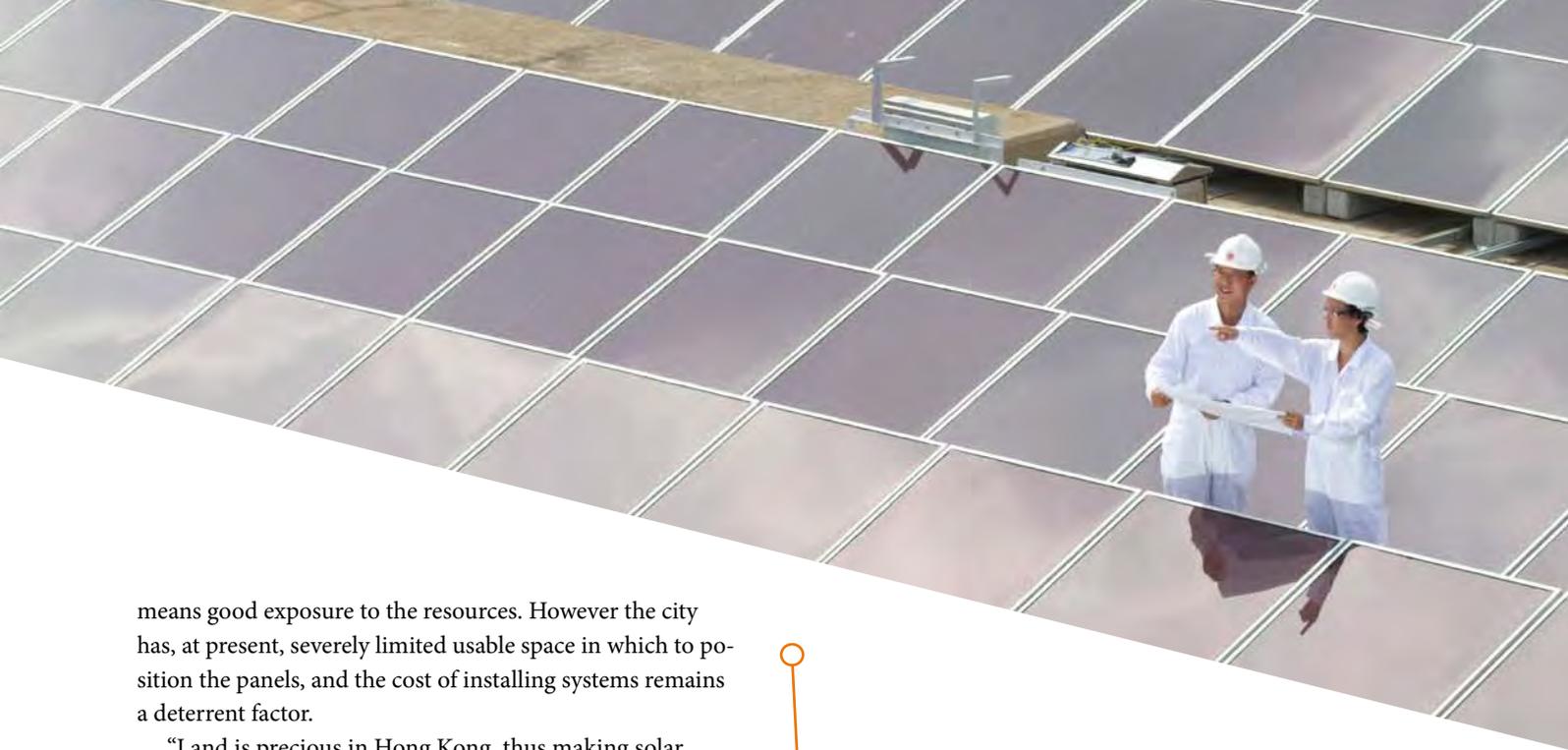
The adoption of solar energy is now a well established international trend, notwithstanding the still relatively high costs involved. The panels are generally perceived as being environmentally superior to most alternative energy sources, because they emit no gaseous or liquid pollutants and do not produce noise.

“Solar and wind power generation are growing fast,” stated Mr Lau. “In 2010 installation of solar photovoltaic systems crossed the threshold of 10 gigawatts globally in a single year – setting a new record and once inconceivable number. Expectations for next year are close to 20 gigawatts. The global market has been growing at a phenomenal rate – an average of 47 per cent per annum over the past five years.”

In some respects Hong Kong is well positioned to harness solar energy. A generally sunny climate

**The System’s solar panels use advanced Amorphous Silicon Thin Film Photovoltaic technology, so they harness more energy than other panels, are more environmentally friendly to produce and are better suited to a sub-tropical climate.**





means good exposure to the resources. However the city has, at present, severely limited usable space in which to position the panels, and the cost of installing systems remains a deterrent factor.

“Land is precious in Hong Kong, thus making solar power system installation very difficult,” observed Mr Lau. “The cost for the implementation of solar energy is also higher than that of conventional thermal power plant.”

That does not mean, however, that adoption of solar power systems in the city will not be more widespread in the future, particularly as costs come down. It is possible that systems could be developed to suit Hong Kong’s unique conditions.

Although the roofs of most tall buildings in the city are used as a platform for air-conditioning plant and other building services equipment, it is possible in the future that the sides of new developments could be covered with TFPV modules.

#### **Solar panels for skyscrapers**

“These panels can be installed to act as a curtain wall. Light can penetrate through them, but the cost of the panels is still relatively high, and building developers may not find the idea attractive yet. However the market trend is that the cost of PV panels is coming down very quickly. Within the next three years the cost will come down to a point at which building developers and power utility companies may become interested in revisiting this concept,” Mr Lau reflected.

In the long term, solar power has too many advantages to be ignored as an electricity source, and will become progressively more attractive as technology costs come down.

“It’s clean energy. There is no doubt about that. There are no emissions and very little maintenance is required. Once the solar panels are connected to the power grid they are producing electricity every second, and very little attention has to be paid to them. However due to solar energy’s intermittent nature, the growth of its adoption worldwide will be constrained until reliable and low-cost technology for storing solar energy becomes available,” Mr Lau concluded. 

#### **Thinking Thin**

Solar panels – also called photovoltaic panels or modules – convert solar radiation into electricity using silicon as a semiconductor. Solar energy absorbed by the modules drives electron flow to produce electricity.

Because solar energy can be generated in any location with suitable light conditions, and because the technology produces no emissions in operation, systems of solar panels have emerged among the front-runners of renewable energy sources.

Considerable progress has accordingly been made in panel design and construction, and units capable of achieving significantly higher levels of efficiency are more readily available.

The amorphous silicon thin film photovoltaic modules made by DuPont Apollo use a semiconducting layer of silicon only micrometers thick deposited on a glass panel, and require less energy to manufacture than crystalline silicon units.

HK Electric’s Frank Lau says that increased demand for the panels is exerting gradual downward pressure on their cost, and this should lead to even more widespread adoption of the technology.

“R&D has continuously made improvements in existing technologies and developing new technologies achieving significant cost reductions and efficiency improvements. Concurrently the use of energy and materials in the manufacturing process will become significantly more efficient, leading to considerably shortened PV system energy payback times and lengthened operational lifetime,” stated Mr Lau.

# The Heat is On

DURING THE COLD WINTER MONTHS, it's the extremities – particularly our hands – that get cold first. Over the centuries, we've come up with some ingenious ways to cope.

**Then...** Legend has it that the first hand-held heater was invented during the Sui Dynasty when the Emperor was visiting Jiang Su Province and complained of the winter cold. His servants asked local craftsmen to fashion a small copper and porcelain heater that could be filled with hot coals and that the Emperor could hold in his hands. The Emperor loved the tiny heater and would often hold it hidden in the large sleeves of his ceremonial robes, a fad that soon caught on with other dignitaries.

**Now...** Today's hand-held heaters are more efficient, if less aesthetically pleasing. Most are battery-operated, come with different temperature modes – Standard/Advanced/Turbo – and have a “constant temperature” safety control so that there is no danger whatsoever of them becoming too hot. At 50g, they also weigh a lot less than the Emperor's version and they're tiny enough to fit into even the less generous modern sleeve, though are more often kept in the pocket. 



L80 x W46 x H20mm



L99 x W161.4 x H124.7mm



CREDIT: NATIONAL PALACE MUSEUM, TAIWAN.