



SUSTAINABLE ENERGY BUSINESS DISTRICTS

Enabling Clean Energy Deployment for Cities in China

Q3 2013
PROGRESS REPORT

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The Sustainable Energy Business Districts (SEBIZ) program is helping to address China's urban energy needs and greenhouse gas emissions at the city-level by leveraging a successful public-private partnership collaboration model in targeted Chinese cities. The program is being implemented by Optony Inc. and funded, in part, by the U.S. Department of Energy.



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FOR MORE INFORMATION

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OFFICIAL LAUNCH OF SEBIZ IN CHINA

Program overview presented at 2013 US-China Renewable Energy Industry Forum in Shanghai.



On July 31, Ben Foster—SVP, Americas for Optony Inc.—presented the vision and plan for the Sustainable Energy Business Districts (SEBIZ) program to deploy clean energy technologies in targeted cities across China at the 2013 US-China Renewable Energy Industries Forum (REIF) in Shanghai. The REIF is part of the US-China Renewable Energy Partnership (USCREP) between the US Department of Energy and National Energy Administration of China.

With similar goals to the USCREP, the SEBIZ program is helping to address China's urban energy needs and greenhouse gas emissions at the district-level by leveraging a successful portfolio-based approach to clean energy upgrades at commercial buildings in targeted Chinese cities. Through on-the-ground technical assistance provided by Optony, business owners will have the tools, information, and support necessary to find viable options to reduce net energy usage and greenhouse gas emissions. Furthermore, the SEBIZ program will enhance business opportunities for energy efficiency and renewable energy (EERE) industry stakeholders by expanding global markets and facilitating business and investment cooperation. The program is being implemented by Optony Inc. and funded, in part, by the US Department of Energy. ▶

PARTICIPATING BUSINESS DISTRICTS



This year’s US-China Renewable Energy Industries Forum brought together leaders from government, industry, and academia in the US and China to discuss best practices in promoting renewable energy and opportunities for US-China collaboration to advance clean energy. Dr. David Danielson, Assistant Secretary, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy and Liang Zhipeng, Deputy Director General, Department of Renewable and New Energy, National Energy Administration of China, along with industry leaders from both countries discussed developments, challenges, and opportunities in renewable energy technology and expressed enthusiasm about prospects for business collaboration.

In presenting the vision for Sustainable Energy Business Districts, Mr. Foster discussed the framework for implementation of SEBIZ’s innovative district-level approach to clean energy technology deployment, including technical assistance for businesses and an actionable public policy development tool for policy-makers. This exciting program is off to a great start. See page 5 for more information. ■

MOU SIGNED WITH FIRST SEBIZ BUSINESS DISTRICT

The Wujin National Hi-Tech Industrial Zone in Changzhou joins as first business district.



The Wujin National High Tech Industrial Zone (WIZ) is a business district located in the city of Changzhou, China that covers an area of about 30 square miles. The city of Changzhou has a population of about 3.4 million. On July 29, 2013 the WIZ officially became the first SEBIZ business district when top officials signed a MOU with Optony Inc. pledging their commitment to pursuing more EERE upgrades for businesses within the district through the SEBIZ program.

Currently, there are about 3,800 enterprises from more than 30 countries with operations in the district. WIZ an ideal district for energy efficiency retrofits and clean energy generation projects due to the large number of commercial buildings with favorable construction profiles and low energy use density. Commercial building owners and businesses located with WIZ have expressed their excitement to

participate in SEBIZ and find ways to improve their energy mix, reduce costs, demonstrate leadership to their customers, and local and national governments. ▶



Shaking hands – Right: Lu Qiuming, Deputy Director of Administrative Committee of Wujin National Hi-Tech Industrial Zone; Left: Benjamin Foster, Senior Vice-President, Optony Inc. Photo courtesy of Optony Inc.

To assess the potential for clean energy technology deployment throughout the district, the SEBIZ team will provide technical assistance to participating businesses to analyze energy usage, identify high-potential EERE opportunities, evaluate potential projects for technical and financial viability, and help facilitate project financing for actual technology deployment to transform energy consumption.

In China, the 12th Five-Year comprehensive plan emphasizes reductions in energy and carbon intensity of the economy and increased use of non-fossil fuel-based energy. The SEBIZ program is aligned with these policy goals, as well as others such as expanding clean energy markets.

More information about the WIZ in Changzhou can be found at: www.wiz.gov.cn/en/index.html. ■



Sample building in Wujin National Hi-Tech Industrial Zone
Photo courtesy of Optony Inc.

BEIJING'S GREEN DRAGON LAKE DISTRICT JOINS SEBIZ

The Green Dragon Lake District in Beijing joins as the second business district.



Green Dragon Lake (Qinglong Lake)
Photos courtesy of Optony Inc. & China Development Orient

The Green Dragon Lake District (GDL) is a new development zone in the planning phase located 25 kilometers southwest of Tiananmen Square in Beijing. The district covers about 10 square miles and will be occupied by global organizations from the public and private sectors to

become the World Multicultural Convention Capital.

The Green Dragon Lake District officially became the second SEBIZ business district on August 15, 2013 when top officials from China Development Orient signed a MOU with Optony Inc. detailing their commitment to integrating global best practices for sustainable urban planning into district plans, including building design and clean energy technologies.

In its quest to become a world-class destination for multicultural conventions, the Green Dragon Lake District is working with the Beijing Municipal Institute of City Planning and Design and global urban planning firms to incorporate cutting edge EERE technologies and energy management systems in the planning phase. The SEBIZ team will be collaborating with GDL stakeholders to ensure that best in class EERE technologies are considered in order to comprehensively maximize energy performance of the Green Dragon Lake District, and that associated benefits are captured from efficient energy systems and distributed generation.

For more information about Green Dragon Lake, visit: www.bjqinglonghu.com. ■

UOW WINS 2013 SOLAR DECATHLON CHINA

SD China brings together 22 student teams representing 13 countries & 35 universities.

On August 2, 2013 the Solar Decathlon China (SD) was officially kicked-off in the city of Datong in Shanxi Province. 22 student teams from 13 countries and 35 universities competed with their solar-powered houses equipped with environmental friendly technologies, hitting a record high in number of participating countries and regions in the history of SD. Team UOW from the University of Wollongong in Australia was awarded first place, taking top honors for its net-zero, water-conserving design. The SEBIZ program will incorporate lessons learned from SD China into the resources available to participating cities.

Representatives attended the opening ceremony at Datong's Sun Palace from all student teams and universities, the National Energy Administration of China, US Department of Energy, Shanxi Province, Datong City, and Peking University, among others.

Solar Decathlon is an award-winning program of the US Department of Energy that challenges collegiate teams to design, build and operate solar-powered houses that are cost-effective, energy-efficient and attractive. SD was first launched in 2002 in Washington, D.C. and since then subsequent competitions have been hosted in the United States, Europe, and now China. SD aims to promote collaboration in the solar industry and to facilitate innovation and adoption of solar energy and energy-efficiency technologies to demonstrate that solar-powered houses are fully functional, comfortable and sustainable living spaces.

During the competition, the energy consumed by each house is generated by solar energy solutions. The competition will assess the team's ability to conserve energy, control their physical environment and ability to be fully energy sufficient.

For more information about Solar Decathlon China, visit: www.sdchina.org. ■



*Solar Decathlon China; Opening Ceremony
Photo courtesy of Peking University*



*Solar Decathlon China; Team UOW's Award-Winning House
Photo courtesy of the University of Wollongong*

SEBIZ IS TRANSFORMING ENERGY USE

Businesses are deploying clean energy technologies to transform their energy use.



HOW BUSINESSES PARTICIPATE

Businesses and commercial property owners in targeted business districts can sign up for SEBIZ and take advantage of program benefits in 4 easy steps:

1. **APPLY.** Building owner completes participation form
2. **ASSESS.** SEBIZ team of experts performs energy audit
3. **FINANCE.** Facilitated financing for qualified projects
4. **TRANSFORM.** Project construction & recognition

A post-project evaluation will be performed to measure energy reductions and financial savings obtained from the implementation of selected EERE upgrades. SEBIZ participants will be recognized through program marketing materials and upcoming events. For more information, please contact Ding Lin'en at linen.ding@optony.com.

INFORMATION FOR EERE VENDORS

Over the course of the next 12 months the SEBIZ team will be working with businesses and commercial property owners in China to identify viable EERE projects, including building energy management systems and electric vehicles, to transform their energy use with clean energy upgrades. SEBIZ participants will be seeking qualified EERE technology solution providers to implement high-impact opportunities

If your company would like to stay connected to business opportunities and be added to the SEBIZ vendor contact list, please contact Tyler Espinoza at tyler.espinoza@optony.com. All EERE technology solution providers will be welcome to participate in forthcoming competitive bid solicitations.

SEBIZ Is Brought to You By:



Optony is a global research and consulting firm focused on enabling government and commercial organizations to bridge the gap between solar energy goals and real-world results. Leveraging our independence, domain expertise and unique market position, our clients are empowered to make informed decisions that reduce risk, optimize operations, and deliver the greatest long-term return on their solar investments. www.optony.com.



SEBIZ is funded through a grant from the US Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE). EERE's International program accelerates the speed and scale of clean energy deployment through international collaboration with strategic partners.

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Using a portfolio approach to energy efficiency and renewable energy technology deployment, SEBIZ provides commercial building owners with technical assistance to identify and pursue viable projects, while helping local governments reach important policy goals.

The SEBIZ team of experts is working with local stakeholders through an innovative collaboration model to provide energy audits, technical assessments, financial analysis, policy evaluation and facilitation of project financing for qualified projects.

For more information, visit www.cleanenergyroadmap.com/sebiz



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