

Protecting the global environment by working with China to harness efficiency as a viable energy resource.

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A Note from the Alliance President



It has been one year since our last newsletter and the Alliance has been busy! A few key accomplishments include submitting comments on China's draft energy law, completing a draft of the national DSM Implementation Manual, organizing study tours to the US and China for high level delegations and helping to develop a Chinese television series on energy efficiency.

These accomplishments are largely due to the collaborative efforts of many groups working together and with the Alliance to improve energy efficiency in China. Since our beginning, the Alliance has strived to provide opportunities for stakeholders to connect with each other, leverage knowledge and resources, and cooperate on important projects. Looking ahead, I see this as a key function of the Alliance and hope to strengthen its role as a platform to connect businesses, investors, academics, and others who are ready to address the great challenge of reducing China's energy consumption. One way we aim to strengthen this role is through a new Alliance initiative called the Energy Roundtable Series. The Roundtable Series offers the opportunity for interested parties to hear from leading experts in energy efficiency, energy financing and China and to connect with others in these fields. You can learn more about the Roundtable events in our feature article.

I would also like to welcome new additions to the Alliance team. First, I would like to welcome Gene Rodrigues to the Alliance Board of Directors. Gene is the Director of Energy Efficiency for Southern California Edison Company (SCE), and it is already quite clear from his rousing speeches at the Roundtable events that Gene is an inspirational and motivating leader! You can learn more about Gene in the section, "Alliance Leaders in the Field." In addition, I would also like to extend a welcome to three new members of our Leadership Council. They include Dan Skopec, Vice President of Regulatory Affairs at Sempra Energy Utilities; Jiang Ling, Vice President of the Energy Foundation; and John Adams, founding Director of the Natural Resources Defense Council. I am delighted to have individuals with this breadth and depth of expertise joining us and I look forward to working with them and our Alliance partners and friends to make this year an equally busy one.

Roundtable Series

Last year, the China-US Energy Efficiency Alliance launched a Roundtable speaker series designed to share the latest developments with respect to energy and environmental issues in China and to provide an opportunity for discussion with key experts in this field. The Alliance organized two Roundtable events in San Francisco and is planning a third one this Fall in Los Angeles.

The first Roundtable - held in December 2007 - was organized to coincide with a visit by a Chinese delegation of influential energy policy makers, who came to California to learn more about demand side management (DSM) and energy efficiency. The keynote speakers were the head of the Chinese delegation, Lu Junling, Director of the Power Division of the National Development and Reform Commission and Commissioner Dian Grueneich of the California Public Utilities Commission (CPUC). The speakers discussed their region's respective energy efficiency policies as well as opportunities for US-China collaboration.

Commissioner Grueneich highlighted California's 30-plus years of successful energy efficiency policy that has kept California's per capita energy use flat, while also saving the state billions in energy costs. She also discussed California's newest initiatives referred to as the Big and Bold energy efficiency strategies. Director Lu offered an overview of China's efforts to establish successful energy efficiency policies and outlined the country's ambitious plan to achieve a 20% reduction in energy intensity across its entire economy. He acknowledged that it has been difficult for China to achieve its aggressive goals; however the government is committed to achieving

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Barbara Finamore and Diana Farrell answering questions after the presentation

economic development through sustainable and energy efficiency energy policies and he sees great opportunity for DSM implementation in China's industrial sector. Both Commissioner Grueneich and Director Lu agreed that there are significant opportunities for the US and China to collaborate to transform China's energy sector to become cleaner and greener through technology transfer and policy cooperation.

The Alliance held a second Roundtable event in April 2008 featuring Diana Farrell, Director of the McKinsey Global Institute (MGI). Ms. Farrell spoke about MGI's research on global energy productivity and the opportunities available to reduce energy intensity in China and globally.

Ms. Farrell explained that global energy-demand growth is projected to accelerate at an estimated 2.2% annual growth rate until 2020. However, MGI found significant opportunities to improve energy productivity across

multiple sectors. Using only existing technologies, MGI estimates that these opportunities could cut energy-demand growth by more than half and cut global demand by 135 QBTUs in 2020, the equivalent of 64 million barrels of oil per day.

MGI estimates that these energy productivity improvements would require an investment of 170 billion dollars annually until 2020 and would, in turn, offer significant economic benefits in addition to energy savings. MGI estimates an average internal rate of return (IRR) of 17% on the investment, which would generate an annual savings of 900 billion dollars by 2020. These savings would free up investment dollars that could be used to upgrade energy supply infrastructure in the coming years. Ms. Farrell also noted another benefit of this investment; energy productivity improvements are the most cost-effective way to reduce global emissions of greenhouse gases.

Ms. Farrell raised an important question, "If there is such significant opportunity, why aren't we seeing these levels of investment and activity?" She explained that currently market barriers prevent viable energy-productivity improvements from being captured and that government intervention will be needed to overcome these barriers. Among the needed interventions, Ms. Farrell highlighted the need to invest in energy intermediaries, who can find new ways to arbitrage and capture energy productivity opportunities. She noted that the work of the China-US Energy Efficiency Alliance is similar to an energy intermediary and that we can play an important role in increasing energy productivity.

The China-US Energy Efficiency Alliance would like to thank all those who participated in our first two Roundtable events, which were both well received by our audience. We would also like to extend our sincere appreciation to Bingham McCutchen LLP and Nixon Peabody LLP for each hosting a Roundtable event in their offices. We also welcome suggestions for future Roundtables topics and speakers.

China Trip by Commissioners

The Alliance helped to organize a trip to China in March 2008 for key California State and Federal energy officials to share expertise and best practices with their Chinese counterparts on energy efficiency and lay the groundwork for future international collaboration. The delegation included several Alliance team members including Commissioner Art Rosenfeld of the California Energy Commission (CEC), Commissioner Dian Grueneich and Keri Bolding of the California Public Utilities Commission (CPUC), and David Moskovitz of the Regulatory Assistance Project (RAP). The delegation met with Chinese national and provincial policy makers and regulators to discuss energy efficiency, demand side management and climate change. The US delegation emphasized China's opportunity to design its energy markets to include energy efficiency and they took away a better understanding of power sector reform in China, the country's challenges, and some of its impressive policy achievements. Both groups agreed to continue policy exchange.



Commissioner Grueneich also met with Jiangsu Province officials to discuss next steps with the Memorandum of Understanding signed between CPUC, CEC, and the Jiangsu Provincial Economic and Trade Commission (the Alliance is an implementing partner to the MOU). They agreed on a number of next steps including translating key sections of California and national

publications on energy efficiency, sharing information on methodologies for converting energy savings into carbon savings and sharing industrial best practices. Commissioner Grueneich also invited leaders of the Economic and Trade Commission of Jiangsu, California's sister province, to visit California and to sign an expanded Memorandum of Understanding for cooperation on climate change research with the CPUC and CEC and, potentially, the California Environmental Protection Agency. Jiangsu officials accepted the invitation.

Alliance Leaders in the Field

The China-US Energy Efficiency Alliance technical experts, board members, employees, volunteers and countless others on the Alliance "team" enable our organization to be an agent for positive change in Chinese energy efficiency policy promulgation and technology adoption. Each newsletter will feature Alliance team members that are making significant contributions both to our organization and the energy efficiency industry at large. This time we are highlighting the work of an Alliance Board member, who represents a strong proponent of industrial energy efficiency



Gene Rodrigues brings both enthusiasm and a strong sense of purpose to his work promoting energy efficiency on the state, federal and international level. As Director of Energy Efficiency for Southern California Edison Company (SCE), Mr. Rodrigues oversees one of the most aggressive efficiency portfolios in the world, with a projected 3.135 billion kWh savings in the period 2006-2008. His influence extends to the national level through service on the Boards of Directors for

the American Council for an Energy-Efficient Economy and the Consortium for Energy Efficiency. Additionally Gene is an active advocate for extending the message of energy efficiency to China and serves on the Board of Directors for the China-US Energy Efficiency Alliance.

Mr. Rodrigues began his career with SCE more than 17 years ago, starting first as a practicing attorney on the SCE legal team. In 1995, SCE management approached Gene about 'crossing over' to the business side of the company. He took this opportunity and joined the energy efficiency division. It was there that he learned the operational aspects of SCE's core business and within five years he became the Director of Energy Efficiency, a title under which he also directs Low Income Energy Efficiency, Low Income Rate Assistance and Customer Generation programs. During his career with SCE, the

"Our solution paths cannot be just in our own backyard. To make a difference in the world, we must work in the world."

company's energy efficiency programs have reduced electricity demand by 9 billion kWh, with avoided carbon emissions estimated at 3.4 million metric tons of through 2006.

Even with these accomplishments, Mr. Rodrigues realized that making great strides in California alone was not enough to change the global energy consumption paradigm. Looking at business and natural climates, it was apparent that short-term energy and climate solutions were not tenable. Furthermore, SCE was an investor-owned utility tasked with the fiduciary responsibility to investors to have a solid and sustainable business plan. For Mr. Rodrigues and other SCE leaders, this meant orienting their company to work in the long-run regulatory world - a world in which global problems must be addressed rather than merely acknowledged. Mr. Rodrigues explained that "our solution paths cannot be just in our own backyard. To make a difference in the world, we must work in the world."

This sentiment led SCE to join the US-China Energy Efficiency Alliance as a Founding Partner with Mr. Rodrigues joining the Alliance's Leadership Council and later the Board of Directors. Since joining the Alliance, Mr. Rodrigues has been a knowledgeable advisor and a dynamic advocate. In 2007, he spoke at China's first international Demand Side Management Forum. He called the experience "enlightening," saying that it was inspirational in terms of the potential for change that stands before the country's government and industry leaders.

Mr. Rodrigues is optimistic about the potential for sustainable change in China's energy consumption patterns in the near and long terms. Currently, he is leading SCE's work with the Alliance including

participating in the development of a National DSM Implementation Manual. Mr. Rodrigues notes that if we are successful in this first endeavor—as measured by improved environmental quality, more efficient use of energy, and demystifying how to achieve growth while reducing energy consumption—he believes this could jumpstart something even more revolutionary. In China, the central and provincial governments and grid companies are committed to bringing change to their industry. Mr. Rodrigues hopes that Chinese leaders can bring this change to their people in a way that is meaningful to their personal health, environmental quality and economic prosperity.

About the Alliance

The China-US Energy Efficiency Alliance is a non-profit organization dedicated to combating global climate change by promoting energy efficiency as the cleanest and least expensive energy resource in China. The Alliance works with experts, officials, and other key stakeholders in China and the United States to pool financial and technical resources to help China design and implement large-scale energy efficiency incentive programs known as demand side management (DSM) programs. We are able to achieve substantial and concrete results by working directly with key Chinese officials at national and provincial levels, who have invited the Alliance to provide regulatory and technical advice and training related to the design and implementation of DSM programs.

In addition to our direct assistance, the Alliance is also building a network of stakeholders interested in promoting energy efficiency in China. We engage key US and Chinese experts through our Leadership Council and Technical Advisory Committee, and work in cooperation with other leading governmental and non-governmental organizations to help achieve our mission. The Alliance also hosts conferences and other events to engage a diverse group of leaders, believing that it is only through a comprehensive, multi-disciplinary approach to efficiency that China and the US can collectively work towards providing environmentally-sound options for energy use into the future.

Recent Alliance Activities and Accomplishments

Jiangsu and Beyond:

The China-US Energy Efficiency Alliance and the Natural Resources Defense Council (NRDC) have been working closely with Jiangsu Province to design China's first large-scale incentive program for installation of efficiency technologies. As part of this cooperation, the Alliance and NRDC have worked with Jiangsu to develop all aspects of their DSM program such as conducting analyses of energy-intensive factories, developing administrative models to institutionalize energy efficiency, and organizing study tours and technical training to build local capacity. These energy efficiency programs are estimated to be able to help Jiangsu meet 10% of its projected electric growth by 2015. In the meantime, our collaboration has already yielded tangible results for Jiangsu. Over the past four years, the province has reduced 580 Megawatts of peak load, saved 2 billion kWh of electricity annually, and reduced CO₂ emissions by 1.84 million tons. Jiangsu's success has transformed it into a nationwide model for energy efficiency programs and based on this success, China has invited the Alliance and NRDC to work with three other regions to develop similar programs. The first new area will be Hebei Province and we are currently in discussions with local officials about launching this collaboration. The second two regions are still under discussion by the Chinese national government.

DSM Implementation Manual:

The Alliance has partnered with NRDC, China's National Development and Reform Commission (NDRC), and the State Grid Company's DSM Center to develop a national DSM Implementation Manual for China. The purpose of the Manual is to provide concrete guidance for DSM efforts in China and help to ensure that DSM implementation will produce intended energy efficiency and emission reduction results, and to provide appropriate mechanisms for measuring and verifying these results.

After months of hard work, the DSM manual writing team, which involves a dozen experts from both the U.S. and China, has produced a complete review draft including several technical appendices. In late June, a group of US experts on the manual writing team visited China to discuss the Manual with their Chinese counterparts. A revised draft is being produced for external review at a larger scale. The Manual should be completed by early 2009 and the Alliance expects to highlight it at the Second DSM Forum to be held in 2009 in Beijing.

Our Partners

The Alliance would like to extend our appreciation to our Partners for their technical, financial and in-kind support. PG&E offered time and resources to design this newsletter and we are grateful to them.



Energy Law Update:

In late 2007, the Alliance was invited to submit comments on China's Draft Energy Law. The Chinese government is developing an overarching law on energy that will provide the foundation for more specific energy-related laws and regulations. The draft of the first Energy Law of China placed priority on energy conservation and efficiency and included general provisions on low-carbon fuels, renewable energy, and public participation in energy decision-making.

Recognizing this unique opportunity for promoting sustainable energy policies in China, the Alliance solicited and consolidated comments from its Technical Advisory Group. Joint comments were submitted to the Chinese government on behalf of the Alliance, NRDC and RAP. In addition, Barbara Finamore and David Moskovitz (RAP) spoke on behalf of the Alliance at the International Forum on Draft Energy Law held in Shanghai in January 2008 and elaborated on the submitted comments.

At this time, the Draft Energy Law has been placed on hold as the Chinese government undergoes a major reorganization including the development of a new National Energy Administration. While this will slow down the process, the Alliance and its partners have learned much from the comment process and gained some support within the Chinese government. This leaves us well-positioned when the government is ready to move forward with the law.

Energy Efficiency Series Broadcasting on China's CCTV:

China's Central Television (CCTV), the nation's largest TV outlet, has aired a seven-part television series on energy efficiency during the week of August 25th, 2008. The series aims to inform the public about the need for energy efficiency improvement and pollution reduction and present a case for positive change should China implement better solutions and actions. The Alliance and NRDC were proud contributors to the series helping CCTV and others develop and organize content for it. In particular, the Alliance and NRDC organized a trip for a CCTV documentary crew to visit California and New York to tape material and conduct interviews. The CCTV crew interviewed a wide group including state regulators, utility executives, entrepreneurs, and green builders.

"The work of the Alliance is critical to the health of the global environment and addresses the biggest opportunities in China to combat climate change. PG&E is proud to be an Alliance Partner and to support its activities."

Peter Darbee, Chairman, CEO, and President, PG&E Corporation