

# China | U.S. Energy Efficiency Alliance | 中美能效聯盟

*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

Fall already!

As you might imagine, these past several months has been a very exciting time to be working with China on energy issues.

Of course, there have been many meetings, conferences, and consultations at the national level as China and the US (and other countries) try to find a basis for agreement in Copenhagen. I have been fortunate to participate in events involving such high level delegates as Secretary Clinton and Senator Kerry as well as Todd Stern and Jonathan Pershing, the US climate negotiators.

At the same time, we continue to work at the provincial and local level on projects which are already resulting in significant improvements in energy efficiency and, thereby, reducing greenhouse gas emissions. The Alliance (as well as a number of other organizations that are part of our TAG) are engaged in a number of activities that are helping China to achieve the goal it established in 2005 to reduce energy consumption per unit of GDP by 20 percent by 2010. Some of these Alliance projects, including cooperative activities with others we work with (such as the Natural Resources Defense Council, the Lawrence Berkeley National Laboratory, the Regulatory Assistance Project, and US



*Barbara Finamore, Alliance President, meets with Senator John Kerry at the Second US-China Clean Energy Forum organized in May 2009 by the American Chamber of Commerce in the People's Republic of China (AmCham-China). Barbara spoke as part of the panel on "Making Energy Efficiency Systemic and Sustainable" (Further information is available at: <http://www.amchamchina.org/event/300>)*

see "Note" page 5

## Portland Roundtable



*In late 2007, 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.*

In our first Roundtable outside of California, members and supporters of the China-U.S. Energy Efficiency Alliance met on September 23 in Portland, Oregon to

learn why the Northwest should care about improving energy efficiency in China.

Hosted by Ecos (an energy efficiency solutions provider, and an Alliance Partner), the Roundtable provided an opportunity to hear different perspectives about what is being done, and what can be done, to help China curb its growing energy demand and resulting consequences for global warming and air pollution.

Portland **Mayor Sam Adams** welcomed the participants who represented a broad cross-section of the community. Mayor Adams said that his goal is to make Portland the most sustainable city in the world and noted that its Council will soon consider one of the most aggressive climate action plans in the country seeking a "90% greenhouse gas reduction based



on 1990 levels by 2050", backed up with a 5-year financial plan to pay for this. He also described his official visits to meet with mayors of key Chinese cities and called for increased partnerships with China.

**Barbara Finamore**, Alliance President, thanked Ecos for all their support in arranging the event and provided a brief overview of the Alliance's work. She noted that what "distinguishes the Alliance from other organizations is our ability to achieve quantifiable results through pilot projects, policy assistance, training and capacity building," and mentioned that among the keys to our success are that we are building on long-standing relationships with central and provincial officials in China and that these officials welcome our efforts. Our work in Jiangsu Province



has already resulted in a savings of about 2 billion kilowatt hours annually and reduced CO2 emissions by 1.84 million tons, according to Finamore. The Jiangsu project has been recognized by the Chinese Premier and by Secretary Hillary Clinton as a model for US-China cooperation on energy and climate. We are now working to replicate this success in other provinces and are seeking support to expand these efforts.

Keynote speaker, **Dr. Mark Levine**, China Energy Group Leader of the Lawrence Berkeley National Laboratory provided an [overview of China's energy and climate](#) issues and described LBNL's major contributions in promoting energy efficiency in China. The Laboratory's work has focused on helping to build institutions, facilitating capacity building, and undertaking research on policies to promote energy efficiency and to understand the dynamics of energy supply and demand in China.

He highlighted three of LBNL's achievements: first, LBNL worked with China to create modern appliance standards in the early 90's, which have resulted in a savings of about 60 billion kilowatt hours a

*see "Roundtable" page 4*

## California and Jiangsu Sign Agreement for Cooperation on Climate Policies

### *Alliance to Participate in the Steering Committee to Assist with Implementation*

On October 2, 2009 – during the Governor's Summit - Jiangsu Province and the State of California signed a [Framework Agreement](#) for strategic cooperation in order to jointly promote greenhouse gas emission reductions, renewable energy, energy efficiency and environmental protection.



Developed to support the [Memorandum of Understanding](#) on climate and energy cooperation signed by the U.S. and China last July, the California-Jiangsu agreement is China's first subnational agreement for cooperation to reduce greenhouse gas emissions. Margret Kim, Senior International Climate Change Counsel and China Program Director for the Air Resources Board and the California Environmental Protection Agency, will be the lead for implementing this ground-breaking agreement.

Jiangsu and California have agreed to work together to promote the following:

1. Reducing greenhouse gas emissions through the sharing of successful climate policies related to energy efficiency, energy conservation and renewable energy;

2. Strengthening government support for renewable energy, energy efficiency and environmental protection;

3. Strengthening technological cooperation to promote research, development and deployment of energy efficiency and renewable energy technologies, zero-and low-carbon electricity

generation and fuels, improved mobility through better planning and transportation infrastructure;

4. Fostering the development of new markets for green and renewable energy technologies, including but not limited to exploring joint certification, inspection and licensing systems for renewable energy technologies, harmonizing technical standards, and facilitating market linkages. The standards will cover such areas as standards for green buildings, cooling & heating, electrical appliances, lighting and solar photovoltaics;

5. Promoting communication and exchange among research personnel, academic institutions and nongovernment organizations and work jointly to support the establishment of research platforms to improve the technological research and development

*see "Agreement" page 5*

## Alliance Leaders in the Field

*The China-US Energy Efficiency Alliance "team" - technical experts, members of the Board and Leadership Council, Partners, employees, volunteers and others- enables our organization to be an agent for positive change related to energy efficiency in China. Each newsletter features Alliance team members who are making significant contributions both to our organization and to improving energy efficiency and global warming more generally. This time we are highlighting the founders of the Alliance.*



**Peter Liu**, the founder and Vice Chairman of New Resource Bank, is the co-founder and Vice Chair of the China-US Energy Efficiency Alliance.

Liu became involved with the Alliance through an organization called Environmental Entrepreneurs (E2), a community of individual business leaders who advocate for good environmental policy while

building economic prosperity. When E2 began to focus on climate change as a global problem and global challenge, China was a primary focus as it then represented one quarter of the world's emissions. After learning about Barbara Finamore's work in China implementing large-scale DSM programs, Liu met with Finamore and her colleagues at the NRDC including the head of the energy program, Ashok Gupta.

During the meeting, Liu learned about the immense impact and importance of Finamore's work. At that time, the Chinese government, in the midst of dealing with energy shortages, was beginning to recognize energy efficiency as the key to its future energy security. Liu also noted that energy efficiency is "complicated to implement, requiring a program designed not only around green technologies, but also a regulatory framework and measurement tools."

Liu realized that, in order to expand its work throughout China and have a greater impact, the NRDC China branch would need additional support from the private sector. Together, with the help of Bryant Tong, Liu and Finamore founded the Alliance in 2004.

Liu personally supports the work of the Alliance, not only for the environmental benefits, but also for the impact on the world's economy recognizing that "energy efficiency is the most efficient, cost-effective way to address the climate change issue while at the same time opening up the global market to energy efficiency [products and technologies]." He believes that companies in the United States and elsewhere, especially energy intensive companies, should support the work of the Alliance as a way to offset their large carbon footprint.

Liu founded New Resource Bank after nearly two decades of experience in the banking and energy industries. Liu had been a Senior Vice President and Vice President, respectively, of Credit Suisse First Boston and the Chase Manhattan Bank, where he

*see "Liu" page 4*



**Bryant Tong** is the Managing Director of Nth Power and a co-founder and Chair of the Board of the China-US Energy Efficiency Alliance.

Bryant knew Peter Liu on a professional level. At the time, both Peter and Bryant shared a "common concern for what China did and how its actions influenced people

worldwide." Peter introduced Bryant to Barbara and, after several lengthy discussions, the three decided to create the Alliance since this would be "very worthwhile and necessary given the rapid changes we were seeing in China."

Tong views the Alliance as "an organization that has the right connections and people with appropriate backgrounds to work with the Chinese to help them in identifying best practices in introducing energy efficiency to all types of businesses."

He believes his involvement with the Alliance is "something I am doing for the benefit of my family and friends. I think the work of the Alliance positively impacts many people worldwide."

He believes other businesses should support the work of the Alliance because "this isn't just about China—this is about improving the environment for everyone." In addition to having a positive environmental impact, the Alliance provides a means for companies to meet people that "understand the decision-making process in China." The Alliance is a "great way for large and small companies to get involved and contribute to a thoughtful and meaningful impact in China."

Bryant would like to see the Alliance grow in terms of size and resources as well as member participation and involvement. Ideally, Tong "would like to have the resources for the Alliance to have the ability to affect appropriate change." With sufficient support and funding, the Alliance "could bring in the best consultants and people to develop and introduce the necessary infrastructure to China." In terms of member participation, Tong would like to see the Alliance become a platform to increase member involvement in China and energy efficiency issues. In addition to current Roundtable events, the Alliance could "host, sponsor and promote educational activities for local business communities so they not only understand what is going on, but can also voice issues and concerns to the Alliance and have that reflected in the work in China."

*see "Tong" page 4*

**Tong continued...**

Overall, Tong believes that “the future [of the Alliance] is very promising. China is becoming a greater force in environmental and business issues and our involvement is at the heart of the foremost concerns for both the US and China.”

Bryant Tong joined Nth Power in 2001 as a Managing Director. Bryant has led Nth Power’s investments in clean tech companies. Prior to joining Nth Power, Bryant was the founder and CEO of Pacific Venture Capital, a wholly owned subsidiary of PG&E Corporation. A native of San Francisco, California, Bryant received his Bachelor of Science in business administration from the Haas School of Business at the University of California, Berkeley. Bryant is a member of the American Institute of CPAs and also serves as a member of several industry advisory boards including the Energy Venture Fair and the Golden Capital Network. Bryant also serves on the University of San Francisco Entrepreneurship Program Advisory Board.

**Liu continued...**

completed \$6 billion in financing transactions as well as providing corporate and strategic advisory. He has been a private investor and strategic advisor to several clean energy technology companies and currently serves on the Clean Technology Investment Advisory Boards of the California Public Employees Retirement System and the California Teachers’ Retirement System, respectively the largest and the 3rd largest pension funds in the United States. In addition to his role as Vice-Chair of the China-US Energy Efficiency Alliance, he serves on the Boards of the Roots of Change Fund and the California Climate Action Registry. Liu graduated from the University of California at Berkeley with degrees in chemical engineering and materials science. He also graduated from Princeton University’s Woodrow Wilson School with a Masters Degree in Public Affairs.

**Roundtable continued...**

year and, with expected improvements, should double the savings by 2020; second, LBNL promoted industrial energy efficiency programs which led to the government setting efficiency quotas for the top 1000 energy consuming enterprises; and third, LBNL helped to create institutions including the Beijing energy efficiency center (in collaboration with the Pacific Northwest Laboratory) and the China Sustainable Energy Program with the Energy Foundation.

Levine next provided an historical perspective on energy growth and energy policy in China. He pointed out that during 1980-2002, China’s energy growth remained stable relative to the increase in GDP (contrary to the conventional wisdom that in developing countries energy grows faster than GDP). This was the result of a deliberate policy choice, with Deng Xiaoping announcing in 1979 that China was going to quadruple GDP in the next 20 years while only doubling energy use. Without this policy, it is estimated that China would currently be using three times as much energy as is the case, and would be responsible for more than half of the world’s greenhouse gas emissions (instead of 20%).

During 2002-2005 “the long term success of reducing energy intensity of the economy by a factor of three reversed itself and energy increased at 2% per year.” Chinese leaders recognized that continuing down this path would be a calamity and therefore established a policy to reduce energy intensity by 20% by 2010.

During the last several years, China has taken a number of actions to achieve this energy reduction goal including, for example, implementing appliance and fuel economy standards, establishing progressive industrial energy efficiency policies (such as the top 1000 enterprise program), and promoting mass transit. He also stressed implementation of efficiency policies are being taken very seriously as evidenced by the fact that local officials have to meet efficiency goals in order to be promoted and the reporting of incorrect numbers related to efficiency savings is a criminal offense. As a result, China’s energy growth declined in 2008 by more than 4.5%.

Levine noted that one area where further work is needed is in the implementation of DSM programs and related fund-mechanisms, the area where the Alliance has been a pioneer.

Excerpts of Levine’s presentation are available on the Alliance [Youtube Channel](#).

After a question-and-answer session, Jon Thomsen (Ecos President and CEO) moderated a panel with three speakers who discussed their perspectives relating to energy efficiency and climate change in China and the reasons we should all be concerned with these issues:

- **Bob Zimmerman** (Managing Partner of Zimmer Gunsul Frasca Architects’ (ZGF) Seattle office) discussed how modern design technologies which are gaining popularity in the U.S. can also be applied to new and retrofit construction in China. He described the experience of his firm, emphasizing the importance of understanding cultural and economic differences in order to adapt these technologies to the local context. In trying to learn why the Chinese did not implement certain proposals despite their apparent interest in energy efficiency, he discovered that China has cultural and historical advantages over the US when it comes to saving energy in commercial and residential buildings. For example, their population have a wider range of thermal and humidity comfort (e.g., they are comfortable within a greater range of temperatures) and they have long-standing tradition of designing buildings with an orientation that maximizes the opportunities for natural daylight and thermal heating.

He also pointed out that the economic incentives for conservation are different than in the US. Specifically, while the cost of energy is proportionally higher, tenants in China generally have no economic motivation to conserve energy since they cannot control heating levels and pay based utility costs based only on the size of the space they occupy.

- **Lonny Knabe** (Energy Architecture Manager for Nike) noted that *see “Portland” page*

**Note continued...**

AID – EcoAsia Clean Development and Climate Program) are described in this newsletter.

The Alliance is also proud to participate in sub-national cooperation and, in particular, between California and Jiangsu Province. As you probably know, in 2005 the Jiangsu and California entered into an Agreement to exchange information and experience related to energy efficiency and clean energy. The Alliance and NRDC are implementing partners for this Agreement.

In a very exciting development, Jiangsu Province of China and the State of California have expanded this cooperation by signing a Framework Agreement in September for strategic cooperation in order to jointly promote greenhouse gas emission reductions, renewable energy, energy efficiency and environmental protection. This is China's first subnational agreement for cooperation to reduce greenhouse gas emissions. The Agreement was developed to support the Memorandum of Understanding on climate and energy cooperation signed by the U.S. and China last July.

California and Jiangsu will establish a Steering Committee to assist them with implementation of their Framework Agreement. This Steering Committee will consist of representatives from other governmental bodies, non-governmental organizations (including the Alliance and NRDC), the private sector, research institutes and academia.

I would like to focus on thanking some of our Partners for their extraordinary efforts on behalf of the Alliance during the last few months.

First, I want to express our gratitude to PG&E for their generous support in lending DSM expert Mona Yew who spent three months in China to help with Alliance activities. With her practical experience in developing and implementing energy efficiency projects, her language skills, and her abilities to teach others, she helped the Alliance make significant progress in advancing our projects in China.

## MOU Signed for Provision of Technical Assistance to Hebei

Under the Memorandum of Understanding signed on September 8, 2009, three organizations - the USAID ECO-Asia Clean Development and Climate Program (Eco-Asia), the Natural Resources Defense Council (NRDC), and the China-US Energy Efficiency Alliance (Alliance) – will provide technical assistance to promote the establishment of a public energy savings company and a DSM Program in Hebei Province.

The three organizations will work together to support the Hebei DSM Center in carrying out a wide range of activities including:

- A. Supporting the establishment and scale-up of a public Energy Savings Company ("Super ESCO") in Hebei province.
- B. Supporting the scale-up of Hebei's existing Demand Side Management (DSM) Fund through the review and design of

Next, I would like to thank Ecos who offered to host our first Roundtable outside of California. We thought that this was a great idea and Ecos did a fabulous job in organizing the event which was held in Portland, Oregon in September. It was an exciting evening, with participants learning "Why the Northwest Should Care about Improving Energy Efficiency in China." Following an introduction by Portland Mayor Sam Adams, the Roundtable included a keynote address from Mark Levine (a member of the Alliance Leadership Council) and a distinguished panel representing three perspectives (government, industry and science) expertly moderated by Jon Thomsen, Ecos President and CEO. (see page 1). I want to thank Jon, Dave Weigel, Jan Kleszynski and their colleagues for all their contributions and support which made for a very successful event.

Last, but certainly not least, I want to express my sincere appreciation to Jeremy Potash from the California-Asia Business Council (Cal-Asia) and Stephan Crawford from the US Commercial Service for their continuing support. In September they organized a Salon bringing together a dozen or so companies and organizations from the Bay Area to where I had the opportunity to discuss energy efficiency trends in China and share information about the Alliance.

I would also like to welcome our newest Corporate Partner, Mazzetti Nash Lipsey Burch, a nationwide firm of designers, engineers, and financial consultants with expertise in green building and energy and emissions management.

Finally, I'd like to invite you to follow us on our new [Twitter Account](#), join our [Facebook Cause](#), or join our [LinkedIn group](#).

Please contact me or my colleagues (Fran Schulberg, Director of Operations and Tracy Rosecrans, Program Assistant) if you have any questions or comments, or if you would like to join the Alliance.

With best wishes,



incentive mechanisms, as well as assistance in seeking additional funding from commercial financial sources, as well as international financial institutions.

C. Supporting the HBDSM Center in conducting targeted energy audits, performing potential studies, screening and identifying "Efficiency Power Plant" (EPP) projects, designing incentive programs, providing technical assistance in DSM program implementation, and developing an EM&V framework.

D. Developing and implementing a plan to provide ongoing training and capacity building to support the needs of the Hebei Provincial Power Office and the Hebei DSM Center related to A to C above.

(to view the MOU, click [here](#)).

## Introducing Mona Yew



*Mona Yew, principal in PG&E's Emerging Clean Technologies department, spent three months in Beijing working on behalf of the Alliance/NRDC to support our efforts to promote energy efficiency (DSM) programs in China. The Alliance asked Ms. Yew about her work in China. Here are her answers:*

### **What were you doing in China?**

I spent three months at the NRDC's office in Beijing providing training on demand-side management (DSM) and energy efficiency program administration and implementation. I spent about 60% of my time helping to train members of Alliance / NRDC's DSM team on how to do program implementation and 40% of my time assisting their government partners with various projects.

### **What type of assistance did you provide to government partners?**

Together with Bo Shen and Michelle Li, from the Alliance / NRDC DSM Team, I helped translate the DSM Manual into Chinese. This was challenging in that many words used in the English language don't translate directly into Chinese. We had to help the government partners better understand the concepts so they could find the Chinese equivalent. For example, we spent a long time discussing words like "portfolio" and other words that don't really

exist. "Program" and "project" are the same word in Chinese, so we had to clarify what is a program vs. what is a project. In general, we had to find a way to say things in Chinese so that people clearly understood the concepts.

I also conducted training related to EM&V, decoupling, program design and implementation. The NRDC DSM Technical Center staff were a tremendous help – they provided support for these training sessions and helped ensure that I used easy-to-understand Chinese terms and examples to convey some not so simple concepts.

Bo Shen and I also worked with the Jiangsu ETC to advise them on the energy information platform they are building to help facilities understand their power usage. We met with a vendor they selected and attended a review meeting to discuss potential applications.

### **What did you find most surprising about your stay in China?**

I was most surprised by Chinese frugality in terms of energy consumption behavior. Chinese households do a lot to conserve. For example, compact fluorescent light bulbs are widely used and many homes have washers but not dryers. Household appliances are smaller and require less energy. Homes are also smaller in comparison to the U.S., so the energy use is also lower. The hotels I stayed in all used a key card system that only allowed lights and ventilation to operate when I was in my room.

Of course, China is a developing country with a large population. So when you add everything up, it's still a very large number. And

*see "Mona" page 8*

## DSM Manual Approved

In May 2009, the National Development and Reform Commission (NRDC) reviewed and approved the publication of the Chinese DSM Program Procedures Manual (Manual). Alliance / NRDC members Mona Yew and Bo Shen attended this historic meeting.

The Manual was reviewed by representatives from various organizations including the: Energy Resource Institute, State Grid, Southern Grid, South East University, Hebei DSM Center, Guangdong DSM Center, ESCO community, and Wang Wanxing of the Energy Foundation. Deputy Director Xia Xin of the NRDC's Economic Operation Bureau, Power Division, presided over the review meeting. In general, those who reviewed the Manual agreed that it provides a comprehensive and useful framework for implementing DSM programs. Given that DSM is still in a nascent stage in China, the Manual provides the necessary fundamental "building blocks" for program administration and implementation. The Manual's publication may also help accelerate the development of a national standard for DSM.

On the other hand, some felt that the draft Manual falls short as a "procedures manual" in that some topics are covered at a high, conceptual level. Some also thought that the draft Manual does not go far enough in recognizing and addressing China's unique conditions, limitations, and regional differences. Many

recommended adding specific case examples or analyses appropriate to China. In addition, many representatives acknowledged that DSM funding is an issue in China and agreed that including a section on financing mechanisms would be useful. Overall, those present recognized that, while there are still some gaps to fill, the key is not to wait for perfection. The Manual is a starting point and can be expanded upon as China gains more experience with DSM implementation.

After hearing the presentations and comments, the NRDC and reviewers held a closed session whereupon they reached their final decision--to approve the publication of the Manual, with modification to further refine some of the terms and terminologies. Dr. Zhou Fuqiu of ERI, the head of the review team signed the approval form on behalf of the team.

This Manual is the result of years of work led by the China-US Energy Efficiency Alliance and NRDC, developed by its team of top international and domestic experts with support from the Energy Foundation, EPA, REEEP, CPUC, Southern California Edison and Pacific Gas and Electric.

*To all contributors, we offer our sincere appreciation and gratitude.*

## Our Newest Corporate Partner: Mazzetti Nash Lipsey Burch

Nationwide firm of designers, engineers, and financial consultants, Mazzetti Nash Lipsey Burch (M+NLB), has become a Partner of the China-US Energy Efficiency Alliance. As an Alliance Partner, Mazzetti will join a network of key stakeholders in the energy efficiency market in China and the U.S.

"Through its work on chairing the International Committee for the Green Guide for Health Care, M+NLB has had the opportunity to start to become acquainted with the Chinese markets," says Walter Vernon (M+NLB Principal, Electrical Engineer). "Because M+NLB is dedicated to helping to make the entire world a better place, not just the US, we are very interested in partnering with healthcare,

laboratory, university, and data center clients, as well as others in this part of the world, for our mutual benefit."

"Having M+NLB become a Partner is particularly timely, as the Alliance will be getting more involved in commercial and residential building efficiency" according to Barbara Finamore, Alliance President. We are very excited to include M+NLB as part of the Alliance team, and are thankful to their support and the support of all our corporate Partners which allow us to help China make significant progress in reducing energy demand and addressing greenhouse gas emissions."

## Greening Asia Breakfast Salon Held On September 29

*The Alliance would like to thank the California-Asia Business Council (Cal-Asia) and the US Commercial Service for sponsoring this Salon*



California-Asia  
Business Council

At the invitation of Cal-Asia and the US Commercial Service, Barbara Finamore spoke to approximately a dozen companies and organizations about energy efficiency trends in China as well as the work of the China-US Energy Efficiency Alliance.



Barbara began by noting the recent announcement by President Hu at the UN where he stated that China will be intensifying its efforts to conserve energy and improve energy efficiency, and endeavor to cut carbon dioxide emissions intensity by a notable margin by 2020 from 2005 levels.

She described a number of actions during the past decade reflecting China's recognized need to ensure sufficient supplies of reliable energy and reduce reliance on coal-fired power plants. A major push for improved energy efficiency came as a result of the policy established in 2005 to shrink energy consumption per GDP by 20 percent during its 2006 – 2010 five year plan.

Barbara pointed out that while the Central government establishes policies and sets targets, it is up to provincial and local governments to put programs in place meet the targets.

To help ensure implementation,, the central government recently changed the way that it reviews the performance of local officials. In the past the focus was solely on economic growth. Now, their performance is also rated on how well their locality is meeting the energy efficiency targets set by the Central government.

### *Work of the Alliance*

Barbara pointed out that the Alliance is working with Provincial governments and utilities to help them identify opportunities for improved energy efficiency in industrial facilities, and to establish the policies and incentive programs needed to realize these energy savings. As part of its work, the Alliance helps take the

best practices from California and elsewhere in the US and, working in cooperation with Chinese experts, adapt these to local circumstances and provide the necessary training.

She noted that the success of the Alliance is based, in large part, on the network of experts we have developed in both China and the US. For example, in California all three investor-owned utilities have provided extensive support, providing both financial and technical resources. We also work in close

cooperation with key officials from the California Public Utilities Commission and the California Energy Commission who participate in many training programs, and provide guidance through our Leadership Council.

Barbara emphasized that our work is possible only because of the involvement of the private sector, the support of all our Partners and the cooperation with organizations like Cal-Asia and the US Commercial Service.

Barbara explained the importance of having built strong working relationships with Chinese officials at Central and Provincial levels. Developing these relationships took a lot of effort, to build the necessary trust. But now that they understand the value of our initiatives, the officials are welcoming us to help them to better understand how to improve energy efficiency.

Our first pilot project, in Jiangsu Province, started with a "potential study" which was undertaken about five years ago. Barbara noted that, at first, the provincial authorities could not believe the scale of opportunities to save energy on a cost-effective basis.

But now our Jiangsu project has been so successful that it has been cited by the Chinese premier, who has recommended that it be adapted in the other Provinces. In addition, Secretary Hilary Clinton mentioned our program as a model for US-China cooperation.

We are now expanding the work beyond Jiangsu and have recently expanded entered into a formal agreement for cooperation with Hebei Province (see page 5).

see "Salon" page 9

**Mona continued...**

they are catching up - so one thing some people are concerned about is how to retain that sense of energy frugality as China catches up with developed countries.

**How does implementing energy efficiency (DSM) programs in China compare to implementing DSM programs in the US?**

The political system enables the Chinese government to implement energy efficiency policies very quickly. In China, they take directions from central government and once the government decides on a course of action, they can implement that very quickly. A Chinese official once asked me [regarding policy implementation in the US] "Why can't the government just order you to do that?"

**What is China's greatest challenge in implementing energy efficiency DSM programs?**

The Chinese government doesn't have dedicated funding for energy efficiency. The central government has set the goal to reduce energy intensity and is providing some amount of subsidy, but at the provincial level they don't have sufficient funding to implement the programs. The Chinese have had to come up with creative ways to fund the projects, such as tapping into urban construction fees or seeking ESCO (energy service company) financing.

Even though there is a desire - a mandate - to reduce energy use in China, they don't yet have the infrastructure or the portfolio approach like we have here that provide a suite of comprehensive energy efficiency programs that range from audits and rebates to design assistance, education and training to help end-use customers save energy.

*"When it comes to GHG emission reduction, or climate change, there aren't any national boundaries--it impacts all of us."*

Likewise, China also has yet to develop the capacity needed to serve the growing energy efficiency market and implement large scale programs.

**What are the practical impacts of the programs you were working on?**

The Alliance's work in Jiangsu Province has been cited as a model for all of China by the Chinese Premier and the U.S. Secretary of State. In continuing to support local government partners and attract the central governments' attention, we are providing proof that energy efficiency does work. Although my work can't be quantified in terms of exact CO2 savings, it's one piece in the overall puzzle in giving the central government grounds to take action at the policy level and creating a framework to allow additional programs to be implemented.

**Why do you think people in the United States should care about energy efficiency in China?**

By sharing best practices on how we implement energy efficiency programs in the U.S. and working with China to adapt the U.S. experience to Chinese conditions and design and implement

suitable DSM programs, we can help China move closer to meeting their energy reduction target and help curb global greenhouse gas emissions. When it comes to GHG emission reduction, or climate change, there aren't any national boundaries--it impacts all of us.

*The Alliance would like to express its appreciation to Mona Yew for her contributions both during her stay in Beijing, as well as before and after this time. We would also like to thank PG&E for making Mona available for this assignment and for all they do to support the work of the Alliance.*

**Agreement continued...**

capabilities, policy development, and implementation in the areas of energy efficiency and renewable energy;

6. Expanding the market for renewable energy and energy efficiency technologies; and

7. Implementing specific training programs on energy and environmental planning, policies, technologies, government support, and data management, tracking and reporting in the areas of renewable energy, energy efficiency, and environment protection.

The California EPA and the Jiangsu Development and Reform Commission will be responsible for implementing the agreement and Margret Kim will take the lead in coordination with other state and provincial agencies, including the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC), who have been working with Jiangsu for several years.

California and Jiangsu will also establish a Steering Committee to assist them with implementation of the agreement. This Steering Committee will consist of representatives from other governmental

and non-governmental organizations (including NRDC and the China-US Energy Efficiency Alliance), the private sector, research institutes and academia.

Such public-private partnerships are essential in order to ensure that this the deal reached on October 2 is not just a paper agreement, but instead leads to concrete projects, policies and technological innovation that will help to break the climate deadlock in the world's two major greenhouse gas emitters.

Like most diplomatic breakthroughs, this historic agreement builds upon many years of patient effort by many parties. Specifically it reflects more than a decade of solid work by NRDC, the Alliance, CPUC, CEC and our partners in Jiangsu, with major support from the Energy Foundation, the Renewable Energy and Energy Efficiency Partnership, and the Asia-Pacific Partnership on Clean Development and Climate.

*This article is based on a posting by Barbara Finamore on NRDC's Switchboard blog (<http://switchboard.nrdc.org/blogs/bfinamore/>)*



## China Issues Addressed at Governor's Global Climate Summit 2 (GGCS2)

This Summit, held on September 29 – October 2, was designed to promote subnational collaboration to stimulate economic growth and reduce greenhouse gas emissions.

A pre-Summit event, the China Carbon Roundtable, featured an introduction by **Linda S. Adams** (the California Secretary for Environmental Protection) and **Margret Kim** (International and China Program Director for Cal/EPA). Adams emphasized the

importance of subnational cooperation and mentioned that “earlier this year California pulled together two non-profits, the California Registry and iCET in China together to initiate the first energy and climate registry in Guandong Province.” Kim mentioned the recently signed agreement between California and Jiangsu which is the first subnational collaboration between US and China with an agreement to reduce greenhouse gas emissions (see page 2).

### Salon continued...

Barbara announced that next year the Alliance will be broadening its mission to include building efficiency (e.g., heating, cooling, lighting), in addition to our current focus on industrial efficiency.

### Energy Efficiency and Climate Change

China recognizes the seriousness of climate change. A 2006 report described the extreme impacts that will be felt by China if nothing is done, especially with respect to the availability of water for agriculture.

Barbara pointed out China is taking a number of steps to address carbon emissions that the Salon participants might not be aware of. For example, China is building fewer coal fired plants than had been planned and the ones that are being built are using more efficient technology. In addition, they are closing a number of smaller more inefficient plants. Furthermore, they are moving

forward with programs to address carbon capture and storage. China is growing its renewable industries at a faster rate than any other country in the world. It is becoming the largest producer of solar panels and is building the biggest solar powerplant which will encompass 25 square miles. It is also undertaking major R&D projects related to hybrid and electric vehicles.

Barbara pointed out that these efforts to improve energy efficiency, as well as to increase the use of renewable energy, provides opportunities for US companies that have relevant products and services. She noted, for example, that Chinese companies are very interested in purchasing US technology because of a belief that they often work better than Chinese products and because they come with a guarantee.

The Salon hosts concluded by session by encouraging participants to stay involved and to identify ways to cooperate with the Alliance.

*Please contact the Alliance if you would like to participate in any future Salons.*

### Portland continued...

Nike uses contract manufacturers and works with 1000 factories around the world which make 50,000 products a year. Many of these facilities are located in China. He described a number of efforts Nike is making to help these factories reduce their energy use from an operational perspective. He pointed out that there is a lack of expertise in China to assess efficiency opportunities. Therefore, Nike acts as a consultant to its manufacturing partners in order to undertake assessments and identify actions that can improve efficiency. Nike is collecting best practices and developing a single program that any factory can follow (or can contract out) to get reliable results from energy efficiency studies. Along with case studies, this program will provide footwear factories with insights on how to reduce energy consumption.

• **Dr. Steven S. Cliff** (California Air Resources Board and Research Professor, University of California at Davis), a recognized expert on global air pollution transport, shared his research and observations of pollutants that travel from China to the United States. He noted that his work involves sampling particles in the atmosphere to understand where they come from and what are their climate and air quality impacts. In this regard, he pointed out that approximately two-thirds of our background air comes from across the Pacific.

Dr. Cliff described the linkage between energy use in China and climate change, noting that this is not limited to greenhouse gas emissions. For example, coal-fired plants also produce particulate pollution (which can contain metals such as mercury which can be

carried across oceans) and black carbon (soot) which absorbs radiation acting in a similar manner as greenhouse gases. In addition to the direct climate impacts, there are also indirect effects such as how clouds form. As a result of this research, there has been a lot of discussion about what kind of pollution controls should be put into place beyond the limits on greenhouse gases since most developing countries don't regulate air emissions to the same extent as the US.

The Roundtable participants had the opportunity to discuss a number of issues with the Panelists.

Barbara Finamore concluded the event by thanking all the speakers and participants, and summarizing why people in the Northwest should care about improving energy efficiency in China. She recognized the progress that has been made in China and noted that there still is a long way to go. Specifically, further efforts are needed to address the lack of understanding and capacity needed to implement and enforce the policies and to provide appropriate incentives to promote further efficiency improvements.

She encouraged everyone to get involved however they can to help us help China in this effort.

*The China-US Energy Efficiency Alliance would like to extend our sincere appreciation to Ecos for hosting the event. Please check our website in the coming months for information about our upcoming Roundtable which will take place in the Bay Area in early 2010.*

**China issues continued...**

A Panel moderated by **Terry Tamminen**, (Pegasus Sustainable Century, New America Foundation) featured seven speakers, each providing a different perspective on what are the best lessons that the US can learn from China and China can learn from the US.

The speakers included **Khalid Malik** (UNDP in China); **Lynn Price** (China Energy Group, Lawrence Berkeley National Laboratory); **Dr. Fuqiang Yang** (World Wildlife Fund International, China); **Jiao Wei** (Jiangsu Provincial Government Reform Commission); **Dr. Yufu Cheng** (China Energy and Climate Registry); **Shirong Sui** (Shenzhen LED Industrial Association); and **Dr. He Kebin** (Graduate School of Environmental Science and Engineering, Tsinghua University). The full Roundtable can be watched at ([click here](#)).

The speakers provided some key insights on developments in China. For example, Khalid Malik mentioned that there is no longer a debate on the need to take action with respect to energy efficiency and carbon reduction. He stated that “for the first time China’s leadership is talking about carbon intensity and carbon targets, and that is a big step.” The focus now is on how to do it. He also pointed out that when decisions are made in China with respect to carbon reduction, action are being taken quickly and that China is making a tremendous effort to lower and contain its

energy intensity.

Khalid Malik suggested that there are four key elements that need to come together to further low carbon development: urbanization to create sustainable cities for the large numbers of people moving to urban areas; lifestyle to deal with the increasing affluence and related demand for carbon intensive products; markets which requires a price on carbon; and technology recognizing that China is becoming a global leader in green technologies.

Lynn Price provided a brief overview about LBNL’s work in China including support for the Top-1000 Energy-Consuming Enterprises program which set energy-saving targets for these enterprises. She pointed out this program has already saved 250 million tons of CO2.

She noted that LBNL recently prepared a paper for the Woodrow Wilson Center China Environment Series entitled. This paper contains an overview of key lessons learned working collaboratively with China including:

-Cooperation must be a two-way exchange, adapting international experience to fit Chinese conditions and needs.

[READ MORE AT THE ALLIANCE BLOG](#)

**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.

**Our Partners**

The Alliance would like to extend our appreciation to our Partners for their technical, financial and in-kind support.

