The Innovation Center for Energy and Transportation (*i*CET)

2009 Annual Report

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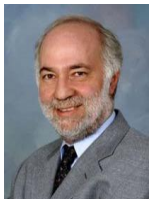

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Mission and Work Approach

The Innovation Center for Energy and Transportation (*i*CET), a leading policy think-tank in the area of low-carbon development and climate change, is an independent non-profit, professional organization registered in Beijing, China and California, USA. The core mission of *i*CET is to mitigate climate change through the promotion of low-carbon transportation, clean energy, energy efficiency and carbon registration practices and policies in China.

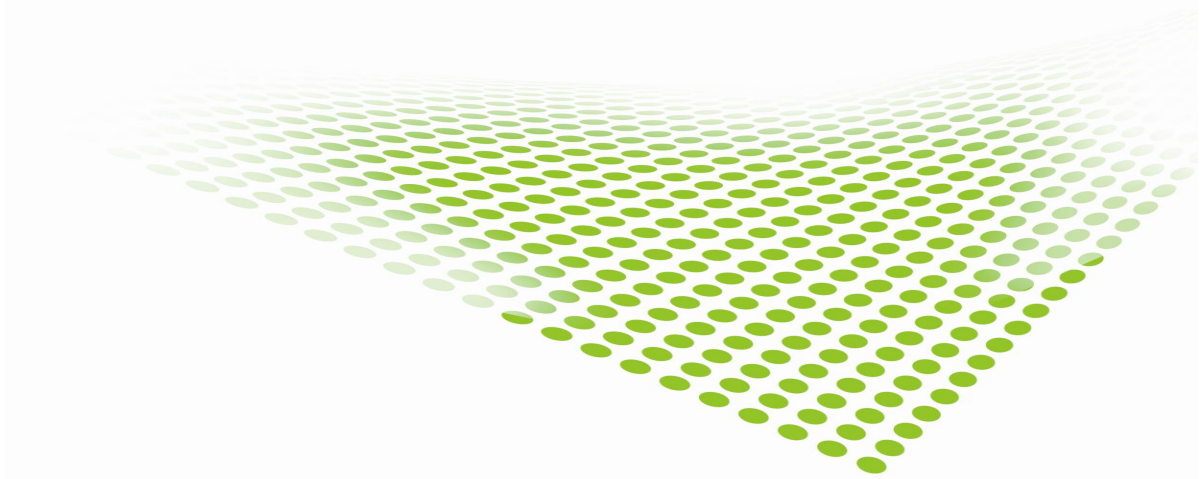
*i*CET is a solutions-oriented organization and pursues its goals by actively developing projects with different stakeholders, both inside China and around the world. *i*CET's work falls primarily into the following four categories:

Identifying and Introducing International Best Practices: Identifying international best practices on low carbon development and climate change policies; assessing their suitability for China; introducing and transferring innovative best practice into China.

Providing Expert Advice: Collaborating with Chinese and international experts to provide advice and suggestions to national and local governments and business communities on low-carbon development and innovations; conducting in-depth analysis and policy studies on improving energy efficiency and reducing carbon emissions.

Planning and Coordination: Organizing international conferences and workshops; facilitating the exchange of ideas, cooperation, and coordination among various stakeholders, including central and local government bodies, the private sector, NGOs, academics and consumers.

Media Outreach: Using public media to educate governments and the public; promoting environmental consciousness and a demand for green consumer products in China.



Letter from the Executive Director

Dear Friends and Supporters:

What a year it was! 2009 marked many significant milestones in China's quest toward sustainable development. These events have catapulted China and its response to climate change into center stage. As the rest of the world looks on, *i*CET has been active many key areas of China's climate change mitigation plans.

In what is likely the most significant event for the transportation industry of this decade, China overtook the United States to become the largest car market in the world in November, forever changing the landscape of transportation. As the largest emitter of greenhouse gases in the world, and now the largest car market, **low-carbon transportation** policies have never been more important. *i*CET has been leading the effort in China to establish low-carbon fuel policies and standards in the past two years.

Also in 2009 was the UNFCCC Conference of Parties 15 held in Copenhagen, Denmark in December. As the US and Chinese delegations became bogged down in the requirements for MRV (measuring, reporting and verification of greenhouse gas emissions), *i*CET was proud to present our own voluntary MRV project, the Energy and Climate Registry for China to the distinguished participants of the Copenhagen conference.

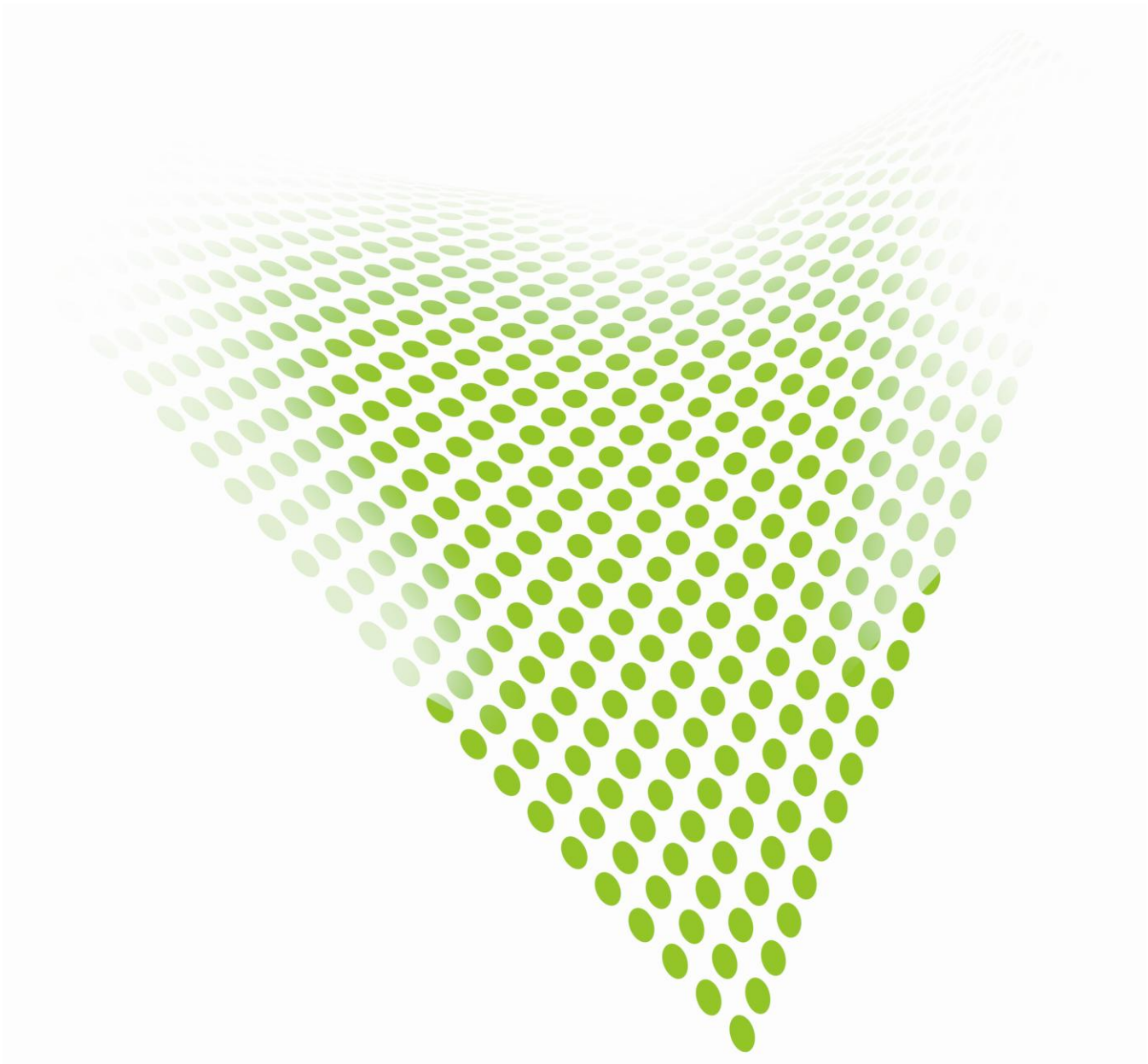
We have equally great expectations for the coming year – The Year of the Tiger. We have work cut out for us in all of our program areas: setting standards for fuels, tracking fuel economy performance of automakers, rating carbon impacts of new car models and promoting electrification of personal transportation in our Low-Carbon Transportation program, promoting transparency, accountability and better GHG emission management with **The Energy and Climate Registry,** and establishing world-class policies and standards in Light Emitting Diode (LED) in our **Energy Efficiency** program. As long as China continues to emerge as a leader in renewable energy, electric and hybrid vehicles and low-carbon growth, and continues to set ambitious targets for reductions in greenhouse gas emission, we can make great progress in these areas.

*i*CET's mission is to bring international best practices in low-carbon and climate change

mitigation policy to China in an effective and practical way. Now with three offices, in Beijing, Los Angeles and New York, 2010 will be an exciting year for *i*CET as we transform and embark on more ambitious programs to tackle climate change. China and the world need innovative energy and transportation solutions to solve the unprecedented global crisis presented by climate change. Working together, I strongly believe we can make a difference!

Sincerely yours,

Dr. Feng An
President and Executive Director, *i*CET



Project Highlights

Our current projects focus on three areas: Low Carbon Transportation, Climate Change and Energy Efficiency. Brief descriptions of current key projects are given below:

Low Carbon Transportation

The Low Carbon Transportation Program is the ongoing foundation of everything that *i*CET does in China. Stemming from Executive Director, Dr. An's work as an leading architect of China's passenger vehicle fuel economy standards, *i*CET's Low Carbon Transportation program has expanded to monitoring and reporting on the implementation of fuel economy standards, development of fuel economy standards for commercial vehicles, updating and promotion of environmentally friendly vehicles, and groundbreaking research and policy development in low carbon transportation fuel standards and policies. *i*CET has also taken a dive into policies related to electric vehicles in China.

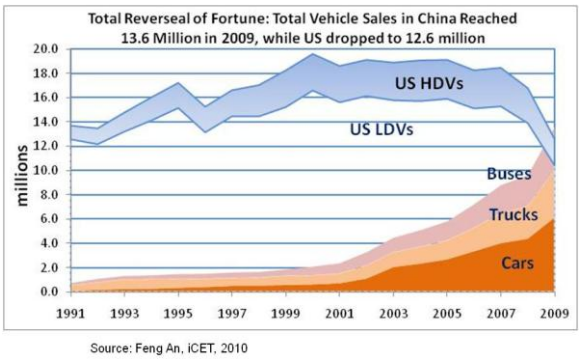
Low Carbon Fuel Policy and Standards

In September 2007, *i*CET initiated a major project to develop low carbon fuel policy recommendations for China. Major sponsors for the project include the UK Foreign and Commonwealth Office Strategic Programme Fund, the Energy Foundation's China Sustainable Energy Program and the Hewlett Foundation. Project partners include the China National Institute of Standardization (CNIS), the Development Research Center of the State Council of the PRC (DRC), the Vehicle Emission Control Center of the Ministry of Environmental Protection (VECC-MEP) and E4tech, a leading UK consulting company in low carbon transportation. There has been key groundbreaking progress in this project. We have introduced the concept of low carbon fuel standards and policies to China, held training sessions and major conferences, organized international and domestic experts related to every aspect of fuel development in China, engaged the alternative fuel industry in evaluating and promoting low carbon fuels, and has nearly completed the drafting process for two national standards related to the evaluation and reporting of lifecycle GHG emissions from transport fuels in China.

Standards Development

In June 2009, *i*CET and CNIS completed the first working draft of the standard, The principles and requirements of LCA for transportation fuel greenhouse gas emission,

which was reviewed by a Standardization Administration of China (SAC)-appointed Technical Committee made up of experts from Tsinghua University, the China Coal Research Institute, China National Petroleum Company Safety and Environmental Protection Research Institute, China Oil and Foodstuffs ImportExport Company (COFCO) Bioenergy and Biochemicals Division, CNIS and *i*CET. The standard was further refined and reviewed again in November, 2009, and has been made available to the public for review.

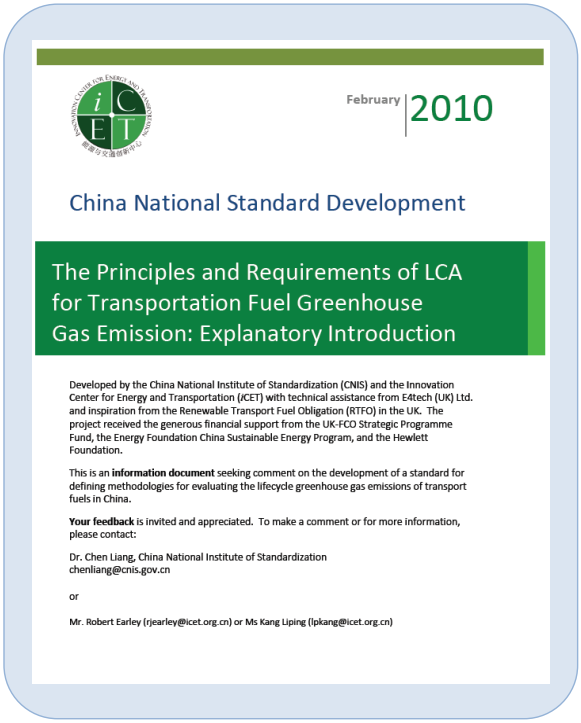


In late 2009, China overtook the United States to become the largest car market in the world– an event with profound implications for China and the fight against climate change

This calculation standard, as well as the reporting standard, **Transportation Fuel LCA Greenhouse Gas Emissions Report Requirements and Audit Guidelines** will be completed in mid-2010.

Industry Engagement

Engaging industry was a major target for 2009 which *i*CET has realized to a great degree, particularly in researching biofuel fuel chains in China.


February 2010

China National Standard Development

The Principles and Requirements of LCA for Transportation Fuel Greenhouse Gas Emission: Explanatory Introduction

Developed by the China National Institute of Standardization (CNIS) and the Innovation Center for Energy and Transportation (*i*CET) with technical assistance from E4tech (UK) Ltd. and inspiration from the Renewable Transport Fuel Obligation (RTFO) in the UK. The project received the generous financial support from the UK-FCO Strategic Programme Fund, the Energy Foundation China Sustainable Energy Program, and the Hewlett Foundation.

This is an **information document** seeking comment on the development of a standard for defining methodologies for evaluating the lifecycle greenhouse gas emissions of transport fuels in China.

Your feedback is invited and appreciated. To make a comment or for more information, please contact:

Dr. Chen Liang, China National Institute of Standardization
chenliang@cnis.gov.cn

or

Mr. Robert Earley (rjearley@icet.org.cn) or Ms Kang Liping (lpkang@icet.org.cn)

In September, *i*CET traveled to Xiamen, Fujian Province to work with COBRA Biodiesel to evaluate the lifecycle GHG emissions of their biodiesel products. In cooperation with the Beijing Institute of Science and Technology, as well as the Chinese Academy of Sciences Urban Environment Institute in Xiamen, a report was produced – the first research report on the lifecycle GHG emissions of a commercially produced fuel chain in China. It was found that using COBRA's biodiesel used cooking oil feedstocks and process, lifecycle GHG emissions are 85% less than that of conventional fossil diesel. Further work will reduce GHG intensity even more.

The report will soon be available on *i*CET's website, and has been used by

COBRA to promote its fuels to foreign buyers. We hope that this report can act as an example to the broader biofuel industry in China, as it searches for new markets for its low carbon transportation energy products.

On December 15, 2009, *i*CET formalized an agreement with COFCO in the form of an MOU to conduct research on lifecycle GHG emissions of corn and cassavabased bioethanol, and the promotion of lifecycle assessment of transportation fuel methodologies in China. This formalized agreement is an extension of work that *i*CET has already done with COFCO on the CNIS standard Technical Committee, as well as informal research to support COFCO in the evaluation of its bioethanol fuel chain lifecycle GHG emissions.

UK – RTFO Study Trip

The RTFO policy study trip to London, UK, had the objective of learning about the inception, design, implementation and evaluation of the RTFO, so as to make informed recommendations on low carbon fuel policy in China, based on the operational experience of the UK. The trip, which took place from February 22 – 29, 2009, focused on a series of meetings that introduced participants to the organizations and individuals responsible for the RTFO and upcoming policy development, including the Low Carbon Vehicle Partnership, E4tech (UK) Ltd., the Renewable Fuels Agency, the Department for Transport, the Department of Energy and Climate Change, British Petroleum, the British Standardization Institution, and the World Wildlife Fund. Participants included Dr. Chen Liang from CNIS, Ms Yu Qian from the SAC, and Mr. Robert Earley, Dr. Cheng Yufu and Dr. Feng An from *i*CET.

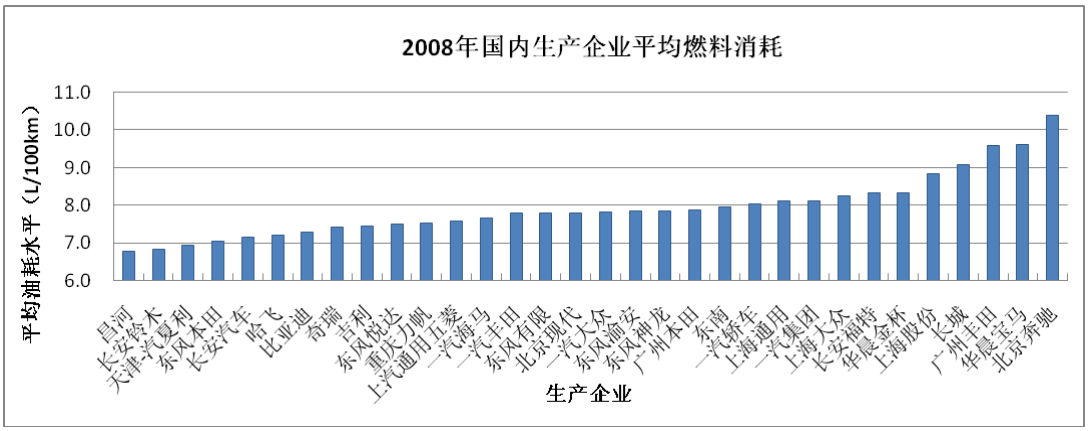
*i*CET published a report on the RTFO policy, and recommendations for China. *i*CET will be completing a policy recommendations paper by the end of March, 2010 based on our experience since 2007.

Passenger Vehicle Fuel Economy Standards

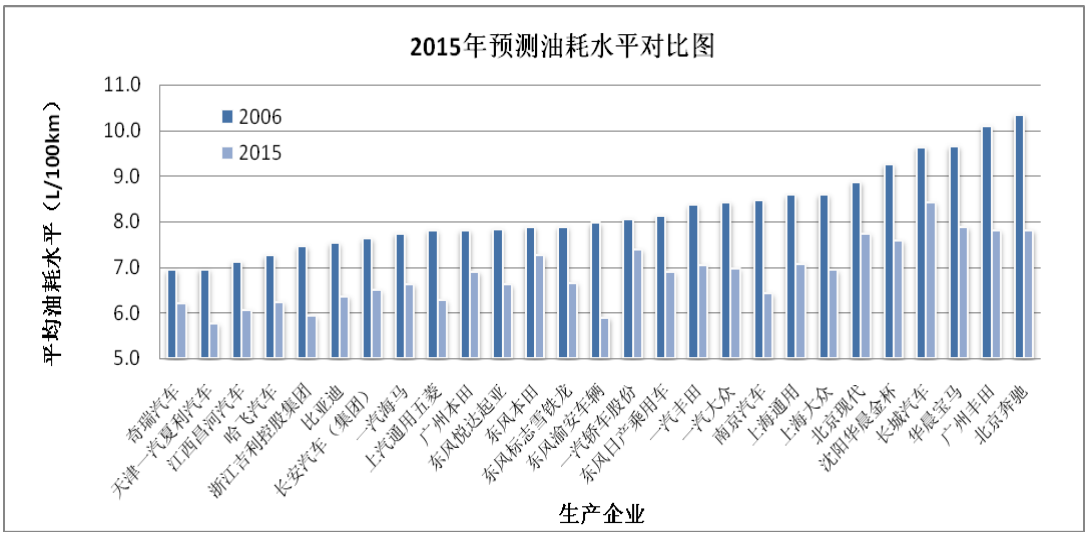
A core component of *i*CET's work is in fuel economy standards development in China. In recent years, we have particularly focused on the effect of the implementation of the fuel economy standard on fuel consumption and GHG emissions in China. New vehicles are regulated according to the Phase II passenger vehicle fuel economy standard which came into effect on January 1, 2008. Based on this standard, *i*CET has calculated the major domestic car manufacturers' fleet average fuel consumption (see figure below) and China domestic automobile fleet average fuel consumption for 2008, which amounted to

7.79L/100km. In terms of greenhouse gas emissions, this level of fuel consumption is approximately equivalent to 180.7gCO_2e/km.

In 2009, the draft of the Phase III fuel economy standard for passenger vehicles was released. Based on the draft, *i*CET estimated the average fleet fuel consumption in 2015 if the Phase III Fuel Economy Standard took effect. The predicted result showed that China's new fleet average fuel consumption will be around 6.67L/100km, a target much lower than the U.S.'s 2016 automobile fuel consumption plan.



Estimated Corporate Average Fuel Consumption of 2008 for Major Chinese Car Companies



Projected Corporate Average Fuel Consumption (L/100km) for Major Chinese Car Companies in 2015 compared to actual results from 2006

Publication: Energy Policy

David Vance Wagner, Feng An and Cheng Wang. 2009. **"Structure and impacts of fuel economy standards for passenger cars in China"**. *Energy Policy* 37:3803-3811

Abstract: By the end of 2006, there were about 24 million total passenger cars on the roads in China, nearly three times as many as in 2001. To slow the increase in energy consumption by these cars, China began implementing passenger car fuel economy standards in two phases beginning in 2005. Phase 1 fuel consumption limits resulted in a sales-weighted new passenger car average fuel consumption decrease of about 11%, from just over 9.1 L/100km to approximately 8.0 L/100 km, from 2002 to 2006. However, we project that upon completion of Phase 2 limits in 2009, the average fuel consumption of new passenger cars in China may drop only by an additional 1%, to approximately 7.9 L/100 km. This is due to the fact that a majority of cars sold in 2006 already meets the stricter second phase fuel consumption limits. Simultaneously, other trends in the Chinese vehicle market, including increases in average curb weight and increases in standards-exempt imported vehicles, threaten to offset the efficiency gains achieved from 2002 to 2006. It is clear that additional efforts and policies beyond Phase 2 fuel consumption limits are required to slow and, ultimately, reverse the trend of rapidly rising energy consumption and greenhouse gases from China's transportation sector.

VECC and iCET published an article in the journal Energy Policy, analyzing China's fuel consumption standards implementation.

The Online Green Car Rating System

As part of our commitment to promoting environmentally-friendly vehicles in China, *i*CET, in collaboration with the Vehicle Emission Control Center at the Ministry of Environmental Protection (VECC-MEP), has led the effort to develop the first-ever online "Green Car" rating system in China. The rating system is designed to give manufacturers, consumers, and policy makers an accurate and scientific method of differentiating vehicles based on their total environmental impact.

*i*CET developed an Green Car online rating system website (www.greencarchina.org) which allows users to search for the Green Ratings of nearly every passenger vehicle model available in China. It also lists the top ten ranking Green Rated vehicles as calculated by the EFV methodology. In the future, consumers may be able to calculate the life-cycle carbon dioxide emissions of their own vehicles based on their driving habits through the online system.

The EFV website and database, made available to the public in 2009, have become particularly valuable in unexpected ways. For example, it has served as an important point of discussion for automotive insurance companies which we hope to see at first offsetting parts of their client vehicles based on emission of their various vehicles, while at a later point in time sparking a discussion on low carbon insurance and insurance premium pricing based on climate change risks from driving.

Electric Vehicles Research

Electric vehicle development was one of the key topics in transportation in 2009. One of the most important meetings of the year was the 1st U.S. – China Electric Vehicle Forum, held at the Diaoyutai Hotel in Beijing, September 29 and 30, 2009. The conference, organized by the Chinese Ministry of Science and Technology and the U.S. Department of Energy was the first in a series of annual meetings of key minds in the policy and industry scenes in the electric vehicle sector.

*i*CET was invited to participate in the conference to create a key points summary document as well as a summary of the entire conference for the U.S. Department of Energy. This document will be important for developing future dialogue between the U.S. and China on the topic of electric vehicles.

September 19th, 2009, US-China Electric Vehicles Forum.

The Minster of MOST, Wan Gang, gave a speech

Climate Change

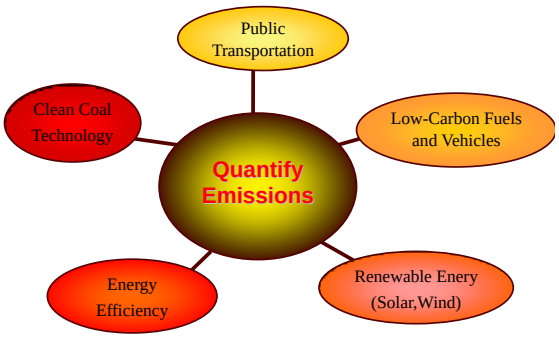
China is the largest emitter of greenhouse gases in the world. With an economy growing at break-neck rate of around 8%-10%, China is on track to increase its energy demand by a significant margin over the next decade. However, there is evidence that China's leaders will do their best to make sure that growth is as clean, and efficient, where ever possible.

The Energy and Climate Registry (ECR)

中国能效与碳注册
ENERGY AND CLIMATE REGISTRY

Just before the 15th Conference of Parties (COP15) began in Copenhagen, Denmark in December 2009, China announced that it would reduce energy-intensity per unit of GDP by 40-45% of 2005 levels by 2020. Among other programs, in order to achieve this goal, China will engage in ambitious energy-saving programs, including largescale investment in renewable energy, conservation and energy-efficiency, low carbon fuel standards and energy efficient vehicles, clean coal technology and public transportation. However, in order to understand and identify the energy-savings associated with these programs, China must develop a reliable, transparent and verifiable system to measure emissions.

In response to this need, with support from the Rockefeller Brothers Fund and the Hewlett Foundation, *i*CET has developed a concrete and practical tool to help China meet its stated goal. *i*CET is working in partnership with The Climate Registry of the United States (TCR) and Business for Social Responsibility (BSR) to develop an online energy and carbon registration system to monitor the energy use and greenhouse gas (GHG) emissions from various domestic and multinational corporations as well as local economic development areas.



China is already engaging in many ambitious energy-saving programs, including large-scale investment in renewable energy, conservation and energy-efficiency, low-carbon fuel standards and energy-efficient vehicles, clean coal technology and public transportation. However, in order to understand and identify the energy-savings associated with these programs, China must develop a reliable, transparent and verifiable system to measure emissions such as the Energy and Climate Registry

The Climate Registry

The goal of this project is to produce reliable, consistent and verifiable information on energy consumption and carbon

emissions on the corporation and local municipality levels. By using the ECR, companies operating in China will be able to measure their energy use and GHG emissions. Multinational and domestic corporations will be encouraged to voluntarily sign up to report input parameters to calculate energy consumptions and produce GHG emission inventories. With this information public and standardized, enterprises can begin to do the necessary work to reduce their emissions and overall energy use.

This online registration system and related methodologies is largely adopted from the North American-based Climate Registry (www.climateregistry.org).

The Climate Registry grew from a small initiative in the state of California and has now expanded to become an organization that includes members from many of the 50 US states, tribes, and provinces across North America. The Climate Registry establishes GHG emission reporting standards that are credible, accurate and consistent to be used by all industries across United States. The Registry is a voluntary tool to measure carbon emissions, although eventually legislation in the United States might make carbon reduction mandatory and thereby increase the relevance of The Climate Registry's tool. California Governor, Arnold Schwarzenegger as well as Cal EPA Secretary Linda Adams have also been supportive of *i*CET's Energy and Climate Registry.

"In just [the last] year, we have made great progress... California helped launch China's first voluntary carbon registry in April to help companies measure their greenhouse gas emissions in order to manage them."

– Arnold Schwarzenegger, Governor of California

"During my time here in Beijing I have been asking China's entrepreneurs to do something important for the environment. I have been challenging them to join the new Energy Climate Registry."

– Linda Adams
Sec. of Environmental Protection, State of California,
at the ECR Project Launch, 25 April 2009, Beijing

The ECR is a first and crucial step toward building the foundation for the formidable task of first reducing overall energy consumption and GHG emissions in China and then to begin to work effectively toward meeting a goal of halving global GHG emissions by 2050.

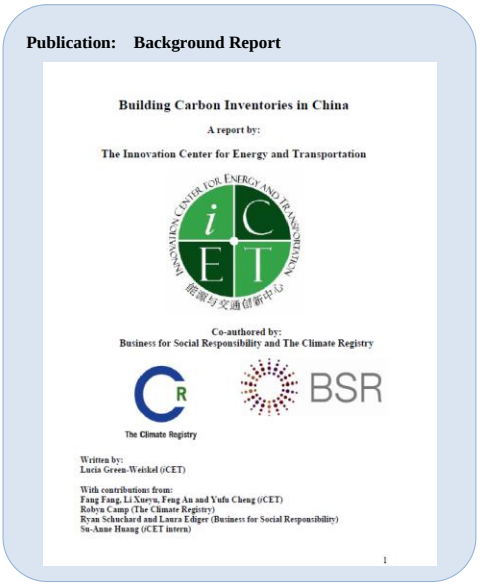
Specific goals of the registry include:

- Creating a common standard for measuring and monitoring carbon emissions and energy usage; promote full and public disclosure of GHG emissions and energy consumption.
- Publicizing and rewarding energ-yefficient enterprises and creating a benchmark for high-performance operations.
- Interpreting and localizing the

carbon accounting methodology, establishing a Chinese expert committee to review and make suggestions for applying the methodology in the Chinese context.

- Demonstrating and publicizing best practices of energy efficiency improvement and GHG emission reduction measures carried out by these enterprises.
- Helping governments and business track and meet energy targets.
- Organizing workshops to train the public and stakeholders on supply chain energy and carbon management, green innovation and technology transfer.
- Raising awareness for the need to reduce GHG emissions and energy consumption in China and the rest of the world.

Background Report



In the spring of 2009 *i*CET released the background report, Building Carbon Inventories in China. Co-authored by Lucia Green-Weiskel (*i*CET), Robyn Camp (The Climate Registry) and Ryan Schuchard (BSR), the report examines the economy of Guangdong province, strategies for implementing a climate registry there as well as lessons learned from experiences with carbon accounting programs internationally. The report was written by *i*CET. The Climate Registry contributed a chapter about international carbon accounting standards and Business for Social Responsibility contributed a chapter about the business case for such a project. The full report is available on the Energy and Climate Registry website: www.China ClimateRegistry.org.

ECR Protocol

In 2009, *i*CET began work on the ECR Protocol – the rules and regulations that will determine what will and won't be included in emissions and energy reports. The Protocol is based on The Climate Registry's General Reporting Protocol (GRP) and therefore reflects a goal of creating rigorous reporting standards for the ECR that are also in line with international standards and comparable across national boundaries. In this way, ECR's Protocol ensures international consistency – it is important that a ton of carbon is a ton of

carbon everywhere in the world.

Project Launch in Beijing

On Saturday April 25th, 2009, *i*CET held its Project Briefing at the Kempinski Hotel in Beijing to mark the launch of *i*CET's Energy and Climate Registry. The purpose of the event was to introduce the registry to China and to raise awareness about the value of carbon and energy use reporting. The half-day event was a tremendous success and brought together businesspeople, members of the Chinese and California governments, academics, journalists and members of the public to engage in a stimulating discussion about greenhouse gas reporting in China. The head of California's Environmental Protection Agency, Linda Adams, gave a keynote address at the project launch and urged domestic and multinational corporations to join the ECR.

Linda Adams, Secretary of California EPA, was addressing the audience at the Energy and Climate Registry Briefing, April 25th, Kempinski Hotel, Beijing, China.

Communicating with Companies and Partners

*i*CET has communicated with many companies and other partners on the protocol development, reporting platforms and concerns on the ECR projects. A key part of the ECR project is to incorporate the needs of the business community to create a user-friendly and tailored tool for optimal success. Feedback is an integral part of the ECR development strategy.

Dr. Feng An and Dr. Yufu Cheng discussed *i*CET's Energy and Climate Registry Project with Walter Reichert, the Director of International Trade Development Of Hewlett-Packard company in Palo Alto, California

In early 2010, *i*CET staff members visited climate change experts in Washington DC and New York City, from governmental, non-governmental and business sectors, to discuss ways of integrating the ECR into other climate change initiatives between the United States and China. *i*CET met with Elizabeth Economy from the Council on Foreign Relations, David Sandalow from the Department of Energy and representatives from the State Department, Environmental

Protection Agency, The World Bank, The Chinese Embassy, Clinton Global Initiative and Al Gore's organization, The Alliance for Climate Protection to discuss US-China cooperation on climate change.

Feng An, Yufu Chang and Lucia Green-Weiskel toured Washington DC and New York City last year to discuss *i*CET projects with various federal agencies and NGO partners

Energy Efficiency and Clean Energy

Energy conservation has become a high priority worldwide, especially in the context of the global climate crisis. It has been widely realized that electricity consumption, based on the use of fossil fuels for power generation, leads to severely damaging environmental and social impacts. As a result, many countries are developing energy-efficient products to reduce greenhouse gas emission and to save energy. Lighting, as one of the dominant sectors in worldwide energy consumption, is attracting attention for its energy-saving potential. The recent development of the high light efficacy of white Light Emitting Diode (LED) has made the possibilities for energy saving widely accepted and valued around the world.

LED Lighting Policies and Standards

In 2009, with support from Energy Foundation, *i*CET worked closely with Beijing Lighting Research Institute and other international partners to introduce the international best practices in the LED light standards and related practices in quality control, make policy recommendations to the LED industry development, and stimulate, facilitate and accelerate the development and commercialization of the TRUE energy efficient lighting technologies.

Background

The industrial development and technology progress in America, Japan, Germany, South Korea and Taiwan are leading the world in solid-state lighting (SSL) products development.

The adoption of SSL is being driven by its significant advantages in comparison to conventional lighting technologies. These advantages include greater lighting efficiency and lower power consumption, greater reliability and longer life, superior color characteristics and capability of sensors, remote monitoring and digital control. These characteristics have made the SSL products the leading choice for conventional lighting retrofitting and the LED market is growing rapidly.

The annual global market for conventional lighting systems is US $102 billion according to the Freedonia Group. Demand for lighting fixtures will grow 6.2 percent annually through 2011. These indicators support the potential for energy efficient solid-state lighting adoption. Strategies Unlimited forecasts that the market for high brightness LEDs in illumination applications will increase at a compound annual growth rate of approximately 44% from 2002 to 2010. LED market is booming worldwide because of the high potential energy

saving and other benefits such as long life. However, not all LED lights are designed and made equal. Because of the high cost of LED general lighting products, the price has limited the marketing potential for high quality products in the market. The products in the market are generally the low priced ones because of both price advantages and customer's lack of knowledge for quality check. LED is a systematic unit and need many components to function simultaneously. The main essential parts for SSL lighting including the following:

- LED Chip / Device / Package
- Driver
- Optics
- Heat sink

The overall quality of the product is equal to the worst quality of each of the components. LED industry is a data-based industry and the quality of the products has to be supported by testing data. Thus the development of standards, effective labeling and related policies are important to the quality of the growth of the business.

Policy Suggestion

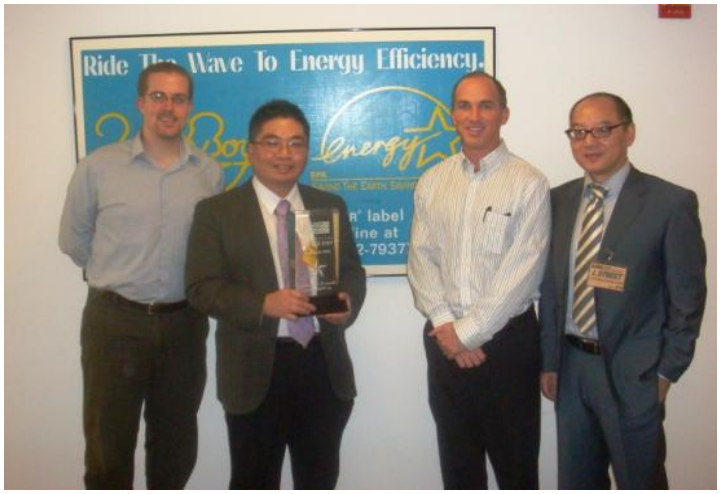
LED industry needs to be backed by credible parameters, and an effective testing, standards and labeling system is key to improving quality in the LED lighting industry in China. The education of both consumers and manufacturers is very important to ensuring that high quality products are produced and recognized. The SSL products with great design and high energy efficiency parameters, which pass critical tests, need to be rewarded by offering the rebate to the products and put them in the LED eligibility list for the public and private sectors to choose from. It is very important to harmonize the testing procedures and international standards on LED products. The LED market development need to get many essential pulls from technology development, smart system design, monetary incentives, customer recognition and acceptance and great distribution channels.

*i*CET has completed a background and policy suggestion paper entitled, International LED Technology Development and Standards Deployment, which will be available to the public in early 2010.

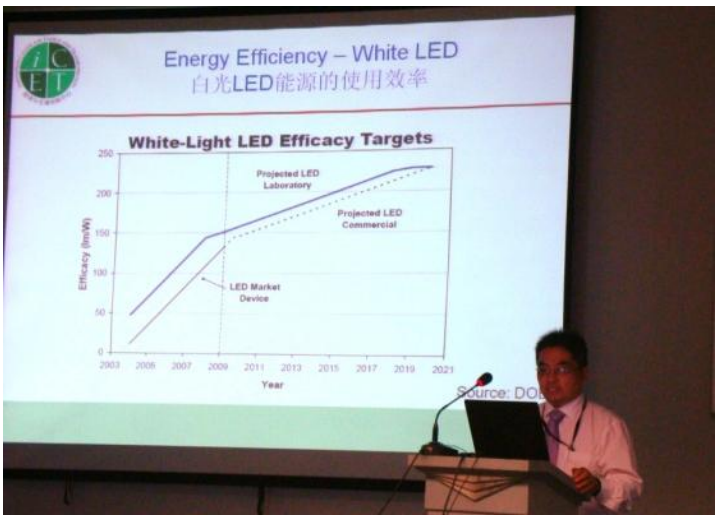
Activities and Conferences

The *i*CET team has visited many world-leading organizations like USEPA's Energy Star Program, USDOC's National Institute of Sciences and Technology, UC-Davis's California Lighting Technology Center, Southern California Edison's Customer Technology Application Center (CTAC), etc.

*i*CET has also been invited to speak at a number of high-level SSL conferences in both China and USA.



Dr. Feng An and Dr. Yufu Cheng had a great meeting with Mr. Peter Banwell, the manager of the product marketing at Energy Star and Mr. Alex Baker, the lighting Program Manager at Energy Star.



Dr. Yufu Cheng was delivering a presentation entitled:" Energy Efficiency-The Environmental Analysis on LED Products" at China (Shanghai) LED Technology Forum

Conference Highlights

US – Jiangsu, China Solar Business Summit 2009

In July 2009, the Jiangsu Department of Foreign Trade & Economic Cooperation (DOFTEC) and *i*CET, organized a large-scale "US – Jiangsu China Solar Business Summit 2009" in Los Angeles. The highlight of the summit was the signing of a Memorandum of Understanding between Jiangsu Province and the City of Los Angeles on solar energy cooperation – the first agreement of its kind in the United States.

Signing Ceremony of MOU on Solar Energy Cooperation between Los Angeles and Jiangsu on July 17, 2009, Los Angeles, California.

2nd Governors' Global Climate Summit

In September 2009, *i*CET was invited to give presentations at the 2nd Governors' Global Climate Summit in Los Angeles, California to introduce the Energy and Climate Registry project, Low Carbon Fuel initiative and LED standards and policy project to American and international audience. Well worth mentioning is, at the summit, California Governor, Arnold Schwarzenegger heralded *i*CET Energy and Climate Registry as one of the six most important achievements that California has participated in the last year to an audience of hundreds of distinguished guests and thousands of on-line viewers.

1st *i*CET Board of Directors meeting

On October 1st, 2009, the 1st *i*CET Board of Directors meeting was successfully held at Hyatt Regency Century Plaza Hotel in Los Angeles, USA. Nine directors and advisors from both China and the USA and four *i*CET staff attended this meeting. At the meeting, *i*CET welcomed members, gave summaries of *i*CET's projects and recent achievements, had a brainstorming with directors and advisors, and listen to comments about *i*CET's role in the future with an open mind.

China Conference on GHG Emissions Data Management in Energy Intensive Industries and the Power Sector

In October, 2009, *i*CET in conjunction with the conference organizer, International Carbon Action Partnership (ICAP), co-organized The China Conference on GHG Emissions Data Management in

Energy Intensive Industries and the Power Sector. Over 120 participants discussed their experience and perspectives regarding the importance of measurement, reporting and verification (MRV) to achieving credible emissions reductions.

*i*CET attended the 15th Conference of Parties (COP15) in Copenhagen

*i*CET was granted observer status by the UNFCCC and launched a series of activities.

On December 8, 2009, *i*CET gave a talk on the panel of China and the world: Solving climate change through practical, on-the-ground Collaboration, which was held by Natural Resources Defense Council (NRDC) – China Program, the presentation was mainly focused on developing low carbon transportation policies in China to mitigate climate change.

*i*CET Members at the United Nations Climate Change Conference in Copenhagen, Denmark, December 2009.

On December 14th, 2009, *i*CET launched a press conference at the Asger Jorn Room of Hall H in Copenhagen's Bella Center.

*i*CET Press Release at COP15 in Copenhagen, Denmark in December, 2009.

On December 16th, 2009, *i*CET shared experience on two panels organized by the Climate Registry:

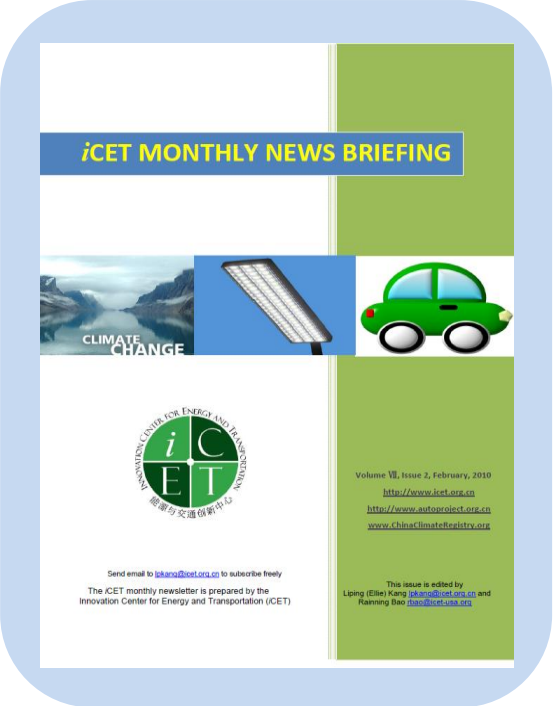
Bridging the Gap: Sub-National Collaboration between Developed and Developing Countries, and Adopt a GHG Registry: Don't Reinvent the Wheel.

Dr. Feng An and Ms Robyn Camp shared experience on climate registry panel

*i*CET had also received approval to hold a side-event panel on The China Energy and Climate Registry in the Liva Weel Room of the Bella Center on December 18 to discuss GHG reduction mechanisms in China, specifically on building GHG registries and the need for more transparency in the context of China's business community. Unfortunately, it is cancelled due to the changed arrangements at COP15 to ensure security for global leaders, but *i*CET had spread The China Energy and Climate Registry material to the potential audience.

Outreach and Other Achievements

*i*CET Monthly News Briefing



In 2009, *i*CET prepared and distributed the 6th Volume of the monthly Newsletter, which is sent out monthly to hundreds of international professionals and subscribers. We changed the name form APECC Newsletter to *i*CET Monthly News Briefing, added the *i*CET News Express section which provide readers with our recent achievements. Since *i*CET was established, the monthly Newsletter has continued to keep its readers up to date on the most recent energy, environment, auto/transportation, oil, natural gas and climate change information in China. The newsletter is distributed by e-mail and also published online.

*i*CET signed MOU with Wuxi Low Carbon Urban Development Research Center

On September 17, 2009, *i*CET signed an MOU with Wuxi Low Carbon Urban Development Research Center in Wuxi City, Jiangsu Province during China (Wuxi) International New Energy Expo 2009, this strategic cooperation agreement will lead to the promotion of clean, low carbon, energy efficiency technology transfer and trading between China and USA (especially between Jiangsu and California). It will also enhance the communication and dialogue between *i*CET and Wuxi Low Carbon Urban Development Research Center. *i*CET would like to be the think-tank to promote the Jiangsu low carbon development, while Wuxi would serve as a demonstration region for *i*CET low carbon projects.

*i*CET and Wuxi Low Carbon Urban Development Research Center signing an MOU, September 17th, 2009.

*i*CET helped to facilitate Jiangsu–California Strategic Agreement on Energy and Environment

October 2nd, 2009 Jiangsu and California signed the Framework Agreement on Strategic Cooperation of Energy & Environment.

September 15th 2009, California delegation received warm welcome by the deputy governor of Jiangsu-Mr. Zhao Kezhi.

CET played a leading role in facilitating the dialogue and discussions between the governments of Jiangsu and California to form and finalize the "Framework Agreement on Strategic Cooperation of Energy & Environment between the People's Government of Jiangsu Province of China and the Government of State of California of the United States of America". This is a first and landmark agreement at sub-national levels between US and China. The agreement is signed by both governors on Oct 2nd, 2009 at Governors' Global Climate Summit in Los Angeles

From Sept 15th to 19th, Dr. Feng An accompanied CalEPA secretary Linda Adams and China Director Margret Kim travelling to Nanjing and Wuxi to discuss and negotiate with Jiangsu counterparts on finalizing the agreement. On Oct 2nd, 2009, Governor Schwarzenegger signed the agreement during the governors' climate summit.

NYU Internship Program

For the past two years *i*CET has run an internship program with students in the Environmental Studies program at New York University. This has been a mutually beneficial arrangement as students at NYU get hands-on experience working in the non-profit sector and in an international setting. Interns provide *i*CET with new and fresh ideas and insights.

*i*CET intern Christine Kehner with *i*CET staff members at the United Nations Climate Change conference in Copenhagen, Denmark in December, 2009.

*i*CET Staff

Dr. Feng An

President and Executive Director

With over 20 years of experience in academia, business, governmental and non-governmental organizations, Dr. An is a world-renowned expert in low carbon technologies, automotive fuel economy strategies, and climate change policies. He founded *i*CET in Beijing and California with the vision of creating a world-class think tank in low carbon development and climate change. Prior to founding *i*CET, Dr. An served in numerous national and international institutions with various capacities, including US Agency for International Development, US Dept of Energy's Lawrence Berkeley National Laboratory and Argonne National Laboratory, and University of California. In the past decade, He has advised governments in China, US, EU, Mexico, Brazil, India and Thailand on automotive fuel economy and GHG policies. He was a leading architect of China's existing fuel economy regulations for passenger and commercial vehicles.

Dr. An has been frequently interviewed by major international and Chinese news media and invited as a keynote speaker by many international organizations including the World Bank, United Nations, European Union, International Energy Agency, OPEC, etc. Dr. An received his PhD from the University of Michigan in US and MS from Tsinghua University in Beijing, both in Applied Physics.

Dr. Yufu Cheng

Program Director

Dr. Cheng is active in promoting green innovative technology and related policies in both China and USA. He is currently working on low carbon transportation fuels, the China Energy and Carbon Registry, LED light standards and policies development, with colleagues at *i*CET and international partners. Dr. Cheng has brought 14 years of climate change education and working experience to *i*CET's climate change-related programs. He has frequently communicated different stakeholders for low carbon projects conducted at *i*CET. Before joining *i*CET, Dr. Cheng conducted climate change related to land and air GHG emission monitoring research in China, the United States, Mexico, and the Arctic Region. Dr. Cheng has been interviewed by many major national and international media. Dr. Cheng

received his Ph.D. from the University of California at Davis in 2003 in Environmental Sciences, Master's Degree in Ecology from the Chinese Academy of Forestry in 1998 and Bachelor Degree in Biological Sciences from Anhui Normal University in 1995.

Fang Fang

General Manager

China Operation

Ms. Fang Fang obtained her MA in Environmental and Development Economics from the University of Oslo in Norway. She is mainly in charge of program developments, office management and budget. She has extensive experience in maintaining public relations and managing projects, having previously worked as a project officer in International Department, Ministry of Finance, P. R. China.

Lucia Green-Weiskel

Project Manager

Climate Change

*Prog*ram

Ms. Green-Weiskel has led the development of the climate change program at *i*CET and has served as the manager of the ECR project. She holds a BA in International Relations from Hampshire College and an M.Sc. in Asian Politics from the School of Oriental and African Studies, University of London. She speaks at numerous conferences on China and climate change and is the author of many articles about China's environment and politics.

Robert J. Earley

Program Manager

Low Carbon Transportation

Mr. Earley, with a master's degree in Environmental Studies from the University of Waterloo in Canada, specializes in the planning and evaluation of environmental policies in Canada and China, particularly in the areas of low carbon and environmentally responsible fuel policy, arctic resource development, heavy oil development as well as in climate change policy.

Cheng (Chandler) Wang

Research Analyst

Automotive Research

Mr. Wang holds a Master's of Engineering degree from the Chinese Academy of Sciences and BS from Beijing University. Mr. Wang currently focuses on the impacts of Fuel Economy Standards and related policy research. He is also in charge of developing

the Online Green Car Rating system.

Liping (Ellie) Kang
Research Analyst
Low Carbon Fuels

Ms Kang holds a Master's degree in Bio-engineering from the China Agricultural University, Ms. Kang is involved in biofuel technologies and low carbon fuel policies, and has published several academic papers and patents in this field. She is now working on *i*CET's Low Carbon Fuel Standard and Policy project.

Xueyu Li
Research Analyst
Energy and Climate Registry

Ms. Li Xueyu, with an M.Sc. degree in Environmental Standards from the Chinese Research Academy of Environmental Sciences, is focus on climate change research and policy development. Ms. Li has been worked at Global Village of Beijing, the first Chinese grassroots NGO, to manage projects in capacity building on sustainable energy and climate change, chemical safety and environmental health, as well as environmental laws for three years.

Li Chen
Administrative & Financial Assistant

Ms Li Chen obtained her bachelor's degree in Computer Science and Technology from Shandong Economics University. She is the administrative assistant *i*CET's Beijing office.

Interns (from New York University): Christine Kehner, Emily Mulvey, Sofie Huang and Elaine Cheng

*i*CET 2009 Financial Highlights

Condensed statement for the year ended December 31, 2009 (US $)

Program	Revenue & Begin Balance	Expense	Balance
Low Carbon Fuel Standards			
	$314,125.00	$205,046.00	$109,079.00
Green Car Project			
	$155,294.00	$89,220.00	$66,074.00
Energy and Climate Registry			
	$249,354.00	$136,245.00	$113,109.00
Energy Efficiency (LED) Project			
	$40,000.00	$40,000.00	$0.00
Conferences & Events (Copenhagen /Sino-US EV Forum/ICAP/BoD Meeting)			
	$38,000.00	$37,606.00	$394.00
Total	**$796,773.00**	**$508,117.00**	**$288,656.00**

iCET's beginning balance in 2009 was USD 160,773, and non-profit revenue was USD 636,000. By the end of 2009, there was USD 288,656 of carryover for 2010 left.

*i*CET Partners

Sponsors

The Hewlett Foundation

The Energy Foundation, China Sustainable Energy Program

The United Kingdom Strategic Program Fund

Rockefeller Brothers Fund

The Blue Moon Fund

Ministry of Environmental Protection

Project Partners and Supporters

Development Research Center (DRC), State Council of the People's Republic of China

China National Institute of Standardization, Standardization Administration of China (CNIS-SAC)

Vehicle Emission Control Center, Ministry of Environmental Protection (VECC-MEP)

The Stern Review on the Economics of Climate Change

The Climate Registry (USA)

E4tech (UK) Ltd.

California Environmental Protection Agency and California Air Resources Board (CARB)

Department of Foreign Trade & Economic Cooperation (DOFTEC), Jiangsu, China

Department of Climate Change, National Development and Reform Commission

Energy Research Institute (ERI)

China Automotive Technology and Research Center (CATARC)

International Council for Clean Transportation (ICCT)

Global Environment Institute (GEI)

Business for Social Responsibility (BSR)

United States Environmental Protection Agency (US EPA)

Southern California Edison

Environmental Defense Fund

Pew Center on Global Climate Change

Tsinghua University

New York University

EcoLinx Foundation

University of California Riverside

Natural Resources Defense Council (NRDC)

UNDP Climate Change Program

American Council On Renewable Energy (ACORE)