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China Strives for a Low-carbon Society

1. Achieving the goals of 11th Five-Year Plan

With only three months left before finishing the last year of the 11th Five-Year Plan (2006-2010), China is attracting world attention as to whether it can achieve the energy conservation goal of "reducing energy intensity per GDP by 20% compared with 2005," which is the supreme goal set for its energy sector. Committed to winning the "Battle of Energy Conservation," the Standing Committee of the State Council, presided over by Premier Wen Jiabao, conducted a situation analysis and a review on countermeasure policies on April 28. Following this, the Chinese government issued a State Council Circular on May 4. Speaking on the national teleconference the next day, the Premier gave a word of command saying "Although we are facing a host of difficulties, we will never change our commitments, nor will our determination waver, or our countermeasures be weakened. We must accomplish our goals with all our might."

The goal of "20% reduction in energy intensity" was initially intended to turn the tide of energy-intensive economic growth centering on heavy and chemical industries, which became evident from around 2003, itself being a tough change of course. At that time, referring to a question as to whether the massive reduction of 20% would be anything but feasible, one of the policy makers explained as follows: "This goal might turn out to be impossible to achieve. However, considering the world trend of energy supply and demand getting unprecedentedly tighter, it is impossible for China as a late-industrializing country to follow the examples of the Euro-American style of energy-intensive development. We have no choice but to aim for an energy-saving type of economic growth if we wish sustainable development. Therefore, even if it would be called a draconian target, we have to set up a policy that will fundamentally change the attitudes of our people."

In accordance with this policy, the Chinese government assigned energy conservation targets and the objective of mandatory elimination of low-efficiency equipment to provincial governments and business establishments, and instituted "censuring measures" in case of non-compliance including a "guilt-by association system for postponing review procedures" in which the review of any new project application is postponed for the relevant localities and

No.9 : September 2010 business groups, and a "down-by-one-vote system" of personnel evaluation in which underachieving officials will not get promoted regardless of their other achievements. In addition, the government introduced preferential taxation credits in favor of small cars and subsidies on replacement purchase of high-efficiency consumer electronics, low fuel-consumption cars, etc.

According to the latest announcement by the National Bureau of Statistics on July 15, while the cumulative energy conservation rate reached 15.6% in 2009, energy conservation was put aside in the course of economic recovery after the Lehman shock; even worsening the intensity per unit GDP by as much as 3.2% during the first quarter of this year. In response to this situation, the State Council issued a circular specifying 14 provisions such as mandatory removal of low-efficiency equipment including coal fired power plants amounting to 10 million kW, more stringent energy efficiency review on new investments as well as escalation of "censuring measures", etc. The government announced conducting an overall review of the goals by the end of September to evaluate the prospect for achieving them within this year, and to invoke an "alarm system" in localities where attainment appears unlikely. The government is said not to hesitate to shut down excessive energy consumers such as cement or metal industry plants in those regions.

Behind this is the fact that China, in relation to "binding national voluntary action program objectives" on the International Framework Convention on Global Warming, refused to accept the obligatory reduction goals or Measurement-Report-Verification (MRV) system called for by developed nations. But, this by no means implies that China is indifferent. Immediately following the Copenhagen Accord, it submitted to the United Nations in January of this year a voluntary goal of reducing CO_2 emissions per unit of energy by $40 \sim 45\%$ by 2020 as compared with the 2005 level. Speaking on the national energy conservation round table talk on May 19, Xie Zhenhua, Vice Chairman of National Development and Reform Commission (NDRC), expressed a sense of crisis saying "If we cannot achieve our energy conservation goals, we will lose the trust of the international community and will find ourselves under tremendous pressure in international negotiations." Granting that China wins the "Battle of Energy Conservation," what it needs to carry forward energy conservation more efficiently and sustainably still needs to be urgently worked out.

2. Energy outlook for China according to IEEJ

Under the circumstances described above, an "International Workshop on China's Energy Conservation" hosted by the Energy Research Institute of NDRC was held in Beijing on August 27. Experts from the World Bank, IEA, UN Development Program (UNDP), U.S. Lawrence Berkeley National Laboratory, and IEEJ participated in this workshop and engaged in vigorous discussion on short- and mid-term outlook of economy, energy, and environment toward 2020, as well as the role of energy conservation and its enhancement.

In this workshop, Mr. Kokichi Ito, Managing Director of IEEJ, delivered a statement on the energy outlook for China as follows:

 By 2020, the industrial sector will continue to lead the energy demand growth in China, as products manufacturing for export and domestic demand will dominate as the driving force of economic growth. Then, the energy growth driver will be replaced by transport and building sectors reflecting rise in personal income, showing gradual a shift to a post-industrial society. In the Reference Case scenario where no accelerated policy actions are taken to curb energy demand, the total primary energy consumption (TPE) will increase at an annual rate of 2.8% under the GDP growth rate at 7.1% during the entire projection period from 2007 through 2035. TPE supply will increase from 1.77 billion tons oil equivalent (toe) in 2007 to 2.54 billion toe in 2020 and 3.45 billion toe in 2035.



2) Nearly 70% of the incremental TPE supply comes from coal and oil. The share of coal in the TPE will decline from 73% in 2007 to 62% in 2020 and 53% in 2035, while that of oil will increase from 20% to 23% and 26%, and natural gas from 3% to 5% and 10%, respectively. The share of fossil fuel will decline only slightly. Thus, energy-based CO₂ emissions will increase from 6.0 giga ton (Gt) in 2007 to 7.7 Gt in 2020 and 9.8 Gt in 2035, as shown in Figure-1.



3) With proactive introduction of advanced technologies, however, emissions will be curbed

-3-

by 1.0 Gt (13%) in 2020 and 4 Gt in 2035 compared with the Reference Case. Among the mitigation measures, energy conservation will play a crucial role in the near future up to 2020, combined with nuclear power, wind mills and fuel switching. Energy conservation is regarded as the "bridging technology" to a low-carbon society, which will be established with innovative technologies and reform of the socio-economic system.

4) China's CO₂ emissions per GDP will decrease, compared with 2005, 51% by 2020 and 57% by 2035, satisfying the official target to cut them 40 ~ 45% by 2020. The key driver is energy conservation. It is of paramount importance to proactively implement energy conservation policies, introducing the experiences and modern technologies/systems of Japan and other advanced countries.

3. China will seek for concerted efforts to carry through energy conservation

Through the discussion of the workshop, a common perception was confirmed concerning the mid-term outlook for the Chinese economy that "while the growth rate may slow down, an economic growth of 7–8% per year will be maintained through 2020." As for growth factors, however, while some projected a conversion from investment- and export-driven growth to an internal consumption-driven one, considering the yet insufficient infrastructure, many adhered to an expectation that it would be difficult to break away from heavy and chemical industries in a short time. Concerning the basis of the projection that the upward trend of energy demand and CO₂ emissions will be maintained through 2020, the discussion focused on the scale and prerequisites of their increase as well as the adequacy of the models. The ERI highly valued the IEEJ report titled "Energy Outlook for China" saying "it significantly agrees with the recognition within China" and requested IEEJ to transfer know-how on the study methodology including model development.

The participants agreed that although the Chinese government submitted to the UN its voluntary goal of reducing CO_2 emissions per GDP by 40 ~ 45% from 2005 to 2020, energy conservation plays the most important role in its achievement. The Chinese participants emphasized the necessity of setting a high energy-saving goal also in the "12th Five-Year Plan", which is currently under development. While acknowledging the considerable energy-saving effect of technology imports, they also referred to the importance of value-added heavy and chemical industries and a shift to service industries. Additionally, the World Bank, on the basis of its energy conservation studies conducted for several provinces, and IEEJ, on the basis of the Japan-China Joint Research Programs on Energy Conservation, provided numerous proposals for establishing a sound energy conservation system by means of legislation, administrative reform and tightening of regulations, reinforcement of supporting measures and securing financial resources, as well as utilization of market mechanism, which won the concurrence of many Chinese experts.

A high-ranking official of NDRC emphasized their commitment to promote energy conservation in China using examples from the experience of developed countries as "an object lesson," whereas they expressed expectations for making use of the Japanese technology and experience in system building for China, and invited Japan to strengthen the joint research programs for that purpose. Various requests for cooperation were also made by National Energy Conservation Center, China Energy Conservation Association, China Coal Manufacturing and Utilizing Association, the People's Government of Beijing Municipality, etc. The workshop provided us with the opportunity to recognize anew the high degree of expectations from Japan.

Tax Hike on Petroleum and Coal to Combat Global Warming

On August 30, 2010, METI presented "Key Economic and Industrial Policies for 2011 - 100 Actions to Implement New Growth Strategies and its Timetable to 2020" and "Budget and Tax Reform Requests for Fiscal 2011." The "New Growth Strategies" focus on green innovations, in which environment and energy industries should drive economic growth, with 33 out of the 100 action items addressing (1) active promotion of green innovations, (2) securing natural resources and energy, and (3) transformation to a low-carbon society. Emphasis is also placed on energy and environment in the fields of R&D and industrial development. Major strategies to promote green innovations include:

- Incubate world leading energy efficiency and low-carbon industries;
- Develop concepts of "Green Cities of the future" through smart grid and other large-scale demonstration projects;
- Prioritize and accelerate R&D on green innovations;
- Shift structures of residential, commercial, and transportation sectors to low-carbon designs;
- Help energy and environmental industries penetrate the world market and make contributions to the world's CO₂ mitigation;
- Build innovative smart communities based on next generation energy use and deploy them worldwide;
- Accelerate reform of institutional framework to promote renewable energies;
- Expand nuclear power generation with safety as a prerequisite;
- Explore desirable policy options to counter global warming including implementation of the Japanese Emissions Trading Scheme;
- Pave the way to introduce biofuels and make progress toward a hydrogen energy society;
- Enhance advanced use of fossil fuels including co-generation, gas shift, and CCS;
- Slash alternative fluorocarbons and other greenhouse gases of non-energy origin.

Meanwhile, METI proposed a hike on Petroleum and Coal Tax¹ and introduction of investment tax credits on green energies to combat global warming, along with a 5% cut on the corporate income tax² to bring Japanese tax systems closer to global standards. All the revenues generated by the tax hike will be allocated for financing reduction of CO₂ emissions originated in energy use. METI aims to fundamentally review the existing tax systems to create a "sophisticated energy supply and demand structure". It also plans to reform the present tax system introducing new "Green Investment Tax Credits" to encourage adoption of renewable energies and highly energy efficient facilities to mitigate CO₂ emissions. In tandem

¹ Current tax rates are: 2,400 yen/kl on petroleum products; 1,080 yen/t on LPG; and 700 yen/t on coal. These rates will be increased depending on carbon emission of each fuel. Specific rates will be determined later.

² METI points out "effective corporation tax rate of Japan is exceptionally high at 40.7%, whereas those of the EU, OECD, and Asia are about 27%, 26%, and 25%, respectively, with Singapore, Taiwan, and the United Kingdom contemplating further reduction. The unfavorable tax rate is driving production as well as R&D bases out of Japan into other countries."

with METI, the Ministry of the Environment (MOE) put forth a budget requests for fiscal 2011 structured around "Low-Carbon Society Simultaneously Producing Growth and 25% Emission Reduction and Other Options to Achieve Transition to Sustainable Society" and "Building Recycle-Oriented Society to Sustain Steady Growth of Japan and Asia."

By these proposals, METI and MOE request in concert for energy tax reforms to counter global warming in the budget that;

- New energy tax be levied on top of the existing petroleum and coal tax.
- CO₂ emission potential determines applicable tax rates.
- All revenue generated by the tax hike be used to finance reduction of CO₂ emissions originated in energy use.
- Naphtha, coking coal, and other raw materials be exempted from these taxes.

METI and MOE, however, have different objectives in terms of tax systems. METI sees it as a hike on Petroleum and Coal Tax, a special account within its jurisdiction. On the other hand, MOE is thinking of breaking the existing Petroleum and Coal Tax into two parts, and, while letting METI keep a part of it for oil stockpiling and other energy security measures, MOE will take the other part for reducing CO₂ emissions as the "Global Warming Tax" into the jurisdiction of MOE. MOE expects to get at least the incremental part as a new tax. Tax rates, spending, and other specifics will be debated and determined by a meeting of the Tax Commission, Government of Japan, to be held at the year-end.

As described above, the existing Energy Structure Reform tax credits will be renamed as Green Investment tax credits. At the same time, the tax structure will be entirely reformed. Tax break and preferential tax treatments have been determined by industries such as for electricity, petroleum, and city gas, as well as by facilities and types of equipment (e.g. a tax break on petroleum desulphurization units). Under the new system, tax credits will be applied to facilities across the industrial sector to promote market penetration by giving breaks or preferential treatment based on CO_2 reduction as the whole society. The targets, the level of tax breaks, and other specifics will be determined by the Tax Commission.

A comprehensive "Global Warming Bill" as the basis for the greener energy policy was discarded since the Democratic Party of Japan (DPJ) lost the election for the House of Councilors in July, but proposals of METI and MOE will incorporate measures to reduce CO_2 emissions in tax reforms for the next year. Industries in the current economic doldrums, on the other hand, are reluctant to accept tax hikes, introduction of emission caps, and other harsh measures. The situation does not allow a premature conclusion as to whether such policies can proceed without strain when they are premised on radical targets like a 25% reduction of CO_2 emissions from the 1990 level, an objective the Hatoyama cabinet had laid out.

Energy Committee Highlights

Three options considered for economy-wide emissions trading

On August 31, the Global Environment Committee of the Central Environment Council, an advisory council to the Ministry of the Environment (MOE), held the eleventh meeting of the Emissions Trading Subcommittee. MOE has been considering implementation of nationwide cap-and-trade emissions trading covering major emitting sources, namely the industry sector, the business/services sector and the transformation sector. There is an ongoing debate over

the basic program design with regard to: 1) whether to impose direct or indirect controls on CO_2 emissions via electricity³; 2) whether to allocate emission credits for a price (auctioning) or free of charge (grandfathering); and 3) whether to regulate an absolute emission amount or a CO_2 -intensity. At the eleventh subcommittee meeting, MOE presented three options regarding how to deal with emissions from electric power generation:

- Option A: CO₂ emissions from electric power generation by Power Producers and Suppliers (PPS) or power companies shall be counted as direct emissions from electric power companies, to which emission credits shall be allocated for a price. An economy-wide emissions cap will be imposed upon the fossil fuel consumption in the private sector, with an exception for power companies. Emission credits will be initially grandfathered free of charge but later be allocated for a price.
- Option B: CO₂ emissions originating in power generation by PPS shall be regarded as indirect emissions from power consumers, to which emission permits are grandfathered. CO₂ emissions from fossil fuels except for electric power generation by PPS are controlled with an economy-wide cap. Electric power companies are subject to fuel-intensity regulations and are required to purchase emission credits in case of noncompliance.
- Option C: CO₂ emissions by electric power companies shall be deemed as indirect emissions by power consumers. Consumption of fossil fuels by non-electric power companies will be subject to fuel-intensity control. Unlike Option B, absolute emission regulation will not be incorporated.

While Option B is regarded as most effective to control emissions, Option C is relatively friendly for industrial users. Despite intentions of the Ministry of the Environment to decide on a general framework by this fall, subcommittee members representing the industry sector voiced, one after another, that there was more to be discussed. The establishment of an emissions trading scheme has been debated in the following dimensions: an outflow of national wealth as a result of purchasing credits overseas, an adverse impact on international competitiveness and carbon leakage (shifting production bases to countries without emissions programs), and a life cycle assessment issue (whether or not to separately deal with energy consumption for producing energy-efficient equipment which contributes to emission reductions at the consumption stage). The secretariat at MOE explained that these issues could be resolved in the course of continued discussions and be incorporated into the scheme later. However, such an argument encountered a wave of criticism such as; "it is doubtful if emissions trading is effective to counter global warming", "many items need to be thoroughly debated before being listed among issues for promising consensus", or "it appears MOE is justifying itself by taking international competitiveness into consideration, but such system that stifles economic growth should be reconsidered."

Emissions trading is included among the strategies to promote a low-carbon society in the "New Growth Strategy" adopted by the Japanese Cabinet on June 18 this year. The proposal

³ The direct approach towards CO₂ emissions from electric power generation has been adopted in EU-EIS and the proposed US scheme. It bears no direct incentives for mitigating emissions on the part of buyers of electric power, but can impact buyers when electricity rates surge. In contrast, in Japan, the bill for the Basic Act for the Promotion of Global Warming Countermeasures and the emissions trading scheme devised by the Tokyo Metropolitan Government both adopted an indirect approach in which power consumers bear direct mandatory emission reductions. Under the latter scheme, since it is difficult to allocate emission credits to all power consumers its coverage rate is lower compared to the direct approach, but by directly imposing caps upon electricity consumers, an income effect to push up energy consumption can be eliminated.

made by MOE sets fiscal years 2013 - 2020 as the first target period, and aims to gradually mitigate emissions in the long run during the second period through 2050. However, the bill for the Basic Act for the Promotion of Global Warming Countermeasures, which serves as the foundation for this discussion, was submitted to the Diet in March 2010 but was scrapped after the unfinished Diet deliberations with no prospect for revival in sight.

Debate on policies for Non-fossil fuel promotion

A subcommittee of the Advisory Committee for Natural Resources and Energy (ACNRE) held a meeting on September 13 to set up institutional structure, policy principles and guidelines for implementation of the Law for Sophisticated Methods of Energy Supply Structures. The Law was approved in July last year, but it was required to review the Basic Energy Plan as its platform as well as to watch progress of deliberations on the bill for the Global Warming Law. The Plan was revised in June this year as reported in JEB No.8, but deliberations on the latter was unfinished. Among issues under the Law, the system to obligate full purchase of excess electricity generated by solar photovoltaics (PV) was introduced earlier in last November. Discussion on other fundamental issues such as utilization of non-fossil fuel and promotion of sophisticated use of fossil fuels has been deferred.

METI proposed to the subcommittee a draft of the fundamental policy and principal guidelines setting out three basic premises as follows;

- To target the share of zero-emission sources in the electricity supply mix at 50% for 2020 and 70% for 2030.
- To aim at utilization of more than 80 % of excess biogas for city gas supply
- To introduce biofuel over 3% of the national gasoline consumption by2020.

METI plans to set up an institutional framework to achieve the above targets applying a regulatory guidance system while fully utilizing creative ideas and endeavors of the private energy supply sectors. To this end, the subcommittee heard views and opinions of the three major energy associations, namely, The Federation of Electric Power Companies (FERC), The Japan Gas Association (JGA) and The Petroleum Association of Japan (PAJ).

The electric power industry tabled major means to achieve the goal such as expansion and higher utilization of nuclear power, development of renewable power sources such as photovoltaics and wind mills, and enhancement of system stabilization to accommodate the intermittent power supply, as well as challenges to develop a Japanese model of smart grids. At the same time, they argued that introduction of zero-emission power would put a heavy burden on power suppliers requiring backup power sources.

The city gas industry explained the promotion of a tie-in of biogas into the city gas network and utilization of boil-off gas at LNG plants, although these are not easy goals and would put a heavy burden on the industry. At present, most of these bio-gases are consumed on-site for the producers' own use since construction of new tie-in lines and tanks are required. METI proposes that three city gas companies (Tokyo, Osaka and Toho Gas Companies) should accept more than 80% of biogas mainly produced at sewage plants that qualify for certain conditions and economics.

METI requested the oil industry to increase the use of biofuel from the present quota of 210,000 kl per year, stepwise from 2013, to 500,000 kl per year in 2017. An obligatory biofuel ratio will be set out annually to achieve this goal. The oil industry appealed that they are presently facing severe challenges of structural demand contraction. Though the industry is

able to digest the current quota, according to a study by a Japanese expert group, only the ethanol originating from sugarcanes grown in already developed farmlands in Brazil can qualify for the national standard of reducing CO₂ emissions by 50% on an LCA basis; and procurement of such material will incur a substantial cost addition. To achieve the new goal, METI plans to study the possibility of utilizing other ethanol sourced from wastes, cassavas, etc.

Several committee members indicated that measures applicable for the goals are significantly different among primary and secondary energies as discussed above. There would be a limit for non-fossil fuels to be taken up by the oil and gas industries, which lack decisive measures like nuclear energy, requiring different approaches to tackle the issue.

Energy News in Japan & Asia

Heat wave pushes up electricity demand 13.2% in August Japan experienced an extraordinarily hot summer this year, which pushed up the electricity demand for the ten major power companies by 13.2% in August, recording demand increase for nine consecutive months. The peak power supply was recorded on August 23, which also exceeded the previous year's level by 11.7%. The power supply reserve was kept comfortably at 7.6%.

To accommodate the higher demand, electricity supply by thermal power generation increased by 21% on a year-on-year basis. While consumption of coal increased by 6.2% and LNG 15.6%, consumption of fuel oil increased by 73.9% and crude oil by 171.2% as they played the role of swing fuels. The hot weather continued even in the middle of September, extending the high electricity consumption into autumn. Gasoline consumption was also pushed up by the hot weather as more fuel is consumed to run car air-conditioners. During the last two weeks of August, gasoline sales run at a level about 15% higher than the previous year.

Full scale operation of nuclear fuel reprocessing plant delayed again Japan Nuclear Fuel Limited recently announced that it would put off the full-scale production of its spent nuclear fuel reprocessing plant in Rokkasho-mura, Aomori prefecture, by two years until October 2012. This is the 18th deferment since 2006, when the trial operation started. Operational difficulties on melt-glass treatment are said to be the cause of delays. Prolonged troubleshooting may have adverse effects on storage of spent nuclear fuels as well as the Japanese government's nuclear fuel policy.

The Rokkasho-mura plant is the only commercial reprocessing plant in Japan, and all nuclear power plants in Japan are sending their spent nuclear fuels to that facility. The spent fuels accumulated at the site will reach as much as 2,834 tonnes at the end of this fiscal year. They may pile-up there as nuclear waste if the site cannot process them at full capacity. Delay of the Rokkasho-mura plant forces nuclear power plants to stockpile spent nuclear fuels at their own sites. Presently, 13,150 tones of spent fuels are stockpiled at nationwide nuclear power plants against their aggregate storage capacity of 20,410 tonnes. Attempts to develop intermediate storage facilities or off-site storages to cope with the situation are not progressing well. As a result, some nuclear power plants may run out of storage capacity in a few years.

Plutonium produced by the reprocessing plant will be used in ordinary nuclear power plants as a "pluthermal" fuel. In fiscal year 2009, Japan started using MOX fuel (mixed oxide fuel: mixture of PuO₂ and UO₂ processed as nuclear fuel) processed by overseas plants. Meanwhile, a plutonium fueled fast-breeder reactor, "Monju," was also put online for trial runs after 14 and

half years of dormancy. Delaying full-scale production may put a hard brake on the Japanese government's nuclear policy as it is based on a scenario to use domestically processed plutonium in pluthermal systems and fast-breeder reactors. While Japan is the only non-nuclear weapons state allowed to own a reprocessing plant, its failure would cause concern as to how to accommodate nuclear power plants that emerging Asian economies are planning to build with a safe and transparent fuel cycling system.

Premium gasoline ratio declines sharply

The premium gasoline ratio over gasoline sales in July 2010 recorded 12.9% going below the 13% level again; the ratio was 14.2% in 2008 and 14.1% in 2009. Premium gasoline is a golden egg for the Japanese refiners bringing much higher revenue. They enjoyed higher ratios above 20% in the past. However, if the ratio continues to decline, it may become a burden on refiners and marketers to maintain the specific production and delivery systems.

Japanese car sales have boomed since the Japanese government started significant promotion of shifting to "Eco-cars", but the policy has only pushed up sales of hybrids and smaller cars, which use regular gasoline. Thus, the premium gasoline ratio started to plunge below the level of the previous year since last autumn. In July, total gasoline sales recorded an annual 9.7% of high increase as the extraordinary hot summer pushed up use of air-conditioners in cars. But premium gasoline sales showed only 3.1% increase. With a standstill economy, consumers may no longer be in the mood to drive luxurious cars burning premium gasoline.



APERC News

Workshop of phase-2 CEEDS study held in Bangkok

A workshop of the Phase-2 study on the Cooperative Energy Efficiency APEC Design for Sustainability (CEEDS) was held in Bangkok, Thailand, on 8-10 September, 2010 organized by APERC. Dr. Wannarat Channukul, Minister of Energy of Thailand, presided at the opening session in the company of Mr. Kenji Kobayashi, president of APERC, Mr. Shinji Kakuno, director of ANRE, METI of Japan, and Mr. Damri Tunshevavong president of SCG Investment.



The Workshop was focused on Building Energy Codes and Labeling as one of the important energy policies to achieve the energy savings goals endorsed by APEC leaders in 2007. The CEEDS project has taken high value for APEC economies as one high value mechanism to promote energy efficiency. At the last APEC Energy Ministers Meeting held in Fukui, Japan, Energy Ministers instructed "the EWG and APERC to keep promoting energy efficiency through the Cooperative Energy Efficiency Design for Sustainability (CEEDS), and to consider follow-up efforts including capacity building activities and policy research support".

At the Workshop #1 – Phase 2 on Building Energy Codes and Labeling (BEC&L) jointly Thailand and hosted by Japan, the participating seven economies, Chile, People's Republic of China, Malaysia, Mexico, Philippines, Indonesia and Vietnam, made presentations and exchanged views. There were more than fifty participants from APEC member economies. Later at the meeting of the APEC Expert Group for Energy Efficiency and Conservation (EGEE&C) held in the middle of September in Sendai, Japan, Mr.



Terry Collins, Chair of EGEE&C, commended the CEEDS workshop saying that it was very effective and productive. The outcome of the workshop will be further fine-tuned at the next CEEDS Phase 2 Workshop in Hong Kong China in January 2011.

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