

# Government of the People's Republic of China

## United Nations Development Programme

### Project Revision Document

## Developing Interconnection of National-wide Electricity Network and Improving Energy Efficiency in China

**Project Brief:** The substantive project revision is made to reflect the changes of the project objectives, major activities, outputs and implementing partners for the on-going project (Project ID 00036898). The objective of the newly revised project is to assist the participating State Grid Corporation (SGC) and China Power Investment Corporation (CPIC) for achieving their energy conservation target and environmental protection goals in the 11<sup>th</sup> Five-year Development Programme.

This will be achieved through developing a strategic policy framework for power sector with greatly direct sustainable development and environmental protection benefits for reduction of coal and water consumption for power generation, promotion of renewable and nuclear energy, reduction of air pollutants emissions by learning international best practices from the other countries.

The newly revised project will support the establishment of pilot and demonstration studies of power sector in particular the power plants where the energy efficiency is most strategically promoted. It will also support the managerial and technical capacity of participating CPIC and their affiliated companies linking to national policy development and capacity building frameworks that could potentially influence future economic development paradigms for power sector.

## Project Substantive Revision Cover Page

### Government of the People's Republic of China United Nations Development Programme

**Project Title:** Developing Interconnection of Nation-wide Electricity Network and Improving Energy Efficiency in China

**Award ID:** 00034616

**Project ID:** 00036898

**Source of Funds:** UNDP and Government Cost-sharing

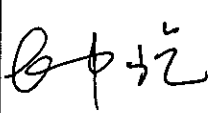
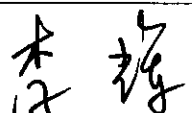
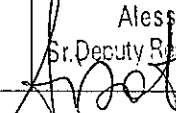
**Management Arrangement:** National Execution

**Implementing Partner:** China International Center for Economic and Technical Exchanges (CICETE)

**Other Implementing Partner:** State Grid Corporation (SGC) & China Power Investment Corporation (CPIC)

**Project Duration:** 2004-2010

<b>Total Budget:</b> \$ 24,254,913	
<b>Allocated Resources:</b> \$ 24,254,913	
Previous Input-Revision	\$ 22,126,442
Revised Input-Revision	\$ 24,254,913
Input Increase	\$ 2,128,471
<b>UNDP</b>	
Previous Input-Revision	\$ 1,013,700
Revised Input-Revision	\$ 1,034,774
Input Increase	\$ 21,074
<b>Government Cost-sharing</b>	
Previous Input-Revision	\$ 21,112,742
Revised Input-Revision	\$ 23,220,139
Input Increase	\$ 2,107,397

On behalf of	Signature	Date	Name and Title
<b>Government Coordinating Agency and Implementing Partner (CICETE):</b>		4/4/07	
<b>CPIC:</b>		4/4-07	
<b>UNDP:</b>	Alessandra Tisot Sr. Deputy Resident Representative 	25/4/07	

## **Justification (Substantive Project Revision)**

This substantive revision is also made based on the Project Document of CPR/04/306 (Project ID: 00036898), the guiding principals of this substantive revision is taken into consideration the following:

- This substantive revision is made in response to changes in the development context of China. The changes of the project objectives, major activities and outputs, implementing partners are reflected in this revision document.
- This substantive revision is made through a participatory process involving all the key stakeholders of the project including UNDP, CICETE, SGC and CPIC and pilot power plants.
- The other components of the current Project Document (CPR/04/306/Project ID: 00036898) which is not described in this revision document will be legally valid till the termination of the project in December 2009.
- This substantive revision is made with the signature of the UNDP resident representative only, provided he or she is assured that the other signatories of this revision document have no objections to the proposed changes.

This revision also reflects the actual year-end expenditure for 2006. The project inputs have been re-phased to 2007 and the following years accordingly.

## **Part 1. Situation Analysis**

### **1.1 The Energy Challenges in China**

China's energy demand is growing very fast in recent years: in 2003, its growth rate of primary energy consumption was 15.3%, while coal production increased by 20.8%, and crude oil import increased by 30.2%. China's energy matrix is characterized by the dominance of coal, counting for 67.6% in the total primary energy consumption, followed by oil, sharing for 22.7 % (2003, China NBS). China's coal demand is almost satisfied by domestic supply, while oil supply largely and increasingly depends on import. In 2004, 40% of the crude oil consumption was from import, which amounted to 122.82 Mt (China Customs Statistics).

China's growth over the past years has created great pressures on China's environment. Issues such as energy and climate change have gained increased attention. China's emergence as the second largest energy consumer in the world has placed it in a position to affect global energy supplies. China is faced with distinct and pressing energy challenges that threaten its economic growth and overall development objectives. These include reliance on coal and its negative environmental impact, insufficient energy supply, and low overall level of energy efficiency.

These challenges also provide China the opportunity to do practice on the energy conservation and efficiency improvement and make some contributions. Given the importance of readily accessible energy services to the reduction of poverty and the achievement of the MDGs, replicable successes in Chinese energy policy and implementation can greatly benefit global energy patterns and the MDGs worldwide.

China has set its objective of reducing energy consumption per unit GDP by 20% by 2010 compared to the level of 2005, while increasing the share of renewable energy in China's energy use portfolio to 16% by 2020. To achieve these objectives, China requires pursuing an energy policy which promotes sustainable development and the achievement of the MDGs by 2015 and a Well-off All Round Society by 2020.

The domestic studies also showed China's energy consumption per unit of output value in 2000 is 2.4 times more than that of world average. In the current energy pattern, the coal is the major energy source accounting for 70 percent of total yearly energy consumption of the country, in which 54-60 percent of consumed coal were used for power generation every year in the country. The effects of pollution caused by coal utilization from power generation will have the heaviest impact on the natural environment for their livelihoods. It also could significantly undermine efforts to achieve and maintain the Millennium Development Goals (MDGs) and national development objective of a Well-off All Round Society by 2020.

### **1.2 Power Sector Reform in China**

China's electricity output reached 2474.7 billion kwh in 2005. China generated 2018 billion kwh of coal-fired electricity last year, accounting for 81.5%; 395.2 billion kwh of hydro power, around 16.0%; 52.3 billion kwh of nuclear power, about 2.1%; and 9.2 billion kwh of the other sources such as wind, landfill methane and biomass, about 0.4%. By the end of 2005, China accumulated a total installed capacity of 508.41GW, of which, coal-fired capac-

ity is about 384.13GW, 75.6 %; hydropower 116.52GW, 22.9%; nuclear 6.85GW, 1.3%; and others 0.91GW, about 0.2% (China NBS).

The Chinese government has initiated electricity sector reforms to overhaul an antiquated system and attain new energy security and environmental objectives. How China proceeds with these reforms will have lasting consequences, both locally and globally. Assessing the current state of electricity regulation in China, the challenges exist on how to moderate growth in demand through increased efficiency, how to integrate environmental goals into planning and operation, how to ensure sufficient supply when and where it is needed, and how to handle institutional and governance challenges. In this respect, electricity sector reform in other countries offers valuable lessons as to how China might proceed.

In order to address the challenges of the power sector, the on-going project (CPR/04/306) aims at assisting the Chinese Government, and the State Grid Corporation (SGC) in particular, to improve the technical and management capacity in interconnection of national electricity network, optimize resource use, improve energy efficiency, and deepen the market-oriented reform of the power sector. The project also coordinates with support two national plans/projects, i.e. the "Western Electricity Sent to the East" as part of China's Western Development Initiative, and on the "North-South Mutual Supply and Regional Interconnection".

However, the situation has been changed along with the power sector reform of the country in recent years. The responsibilities of power generation and transmission have been more clearly defined. In particular, all the power companies were requested to contribute to achieve energy conservation objective of 20 percent energy consumption reduction per unit of GDP in the 11th Five-year Development Programme, therefore, energy conservation and emission reduction has become the major focuses of the power companies. To this end, UNDP's support could be shifted from solely strengthening the capacity of national grid inter-connections to also assisting the power companies to achieve their energy conservation objective and environmental protection goals in the 11th Five-year Development Programme (2006-2010).

## **Part 2. Project Strategy**

### **2.1 Project Objective and Strategy**

Assisted by China International Centre for Economic and Technical Exchange (CICETE), UNDP China seeks to commence a revised project with the State Grid Corporation (SGC) and China Power Investment Corporation (CPIC). The objective of the newly revised project is to assist the participating China Power Investment Corporation (CPIC) for achieving their energy conservation target and environmental protection goals in the 11th Five-year Development Programme.

This will be achieved through developing a strategic policy framework for power sector with greatly direct sustainable development and environmental protection benefits for reduction of coal and water consumption for power generation, promotion of renewable and nuclear energy, reduction of air pollutants by learning international best practices on the law, regulations, policies and technologies from the other countries.

The Project will support the establishment of pilot and demonstration studies of power sector in particular the national grid where the energy efficiency is most strategically promoted. It will also support the managerial and technical capacity of participating CPIC and their affili-

ated companies. Links to national policy development and capacity building frameworks that could potentially influence future economic development for power sector.

This is also achieved through partnerships of the stakeholders linking to the energy conservation voluntary agreements, as a mechanism for facilitating energy conservation and environmental protection activities among national and local firms in the implementation process of the project.

## **2.2. Demonstration Sites and Participating Organization**

Due to the restructuring of the power sector in China, the roles and responsibilities of State Grid Corporation (SGC) have been partially changed. In particular, the power generation component of State Grid Corporation has been shifted to power generation corporations such as China Power Investment Corporation (CPIC). As agreed with current key stakeholders of the on-going project, CPIC will become the second implementing agency of the project particularly working on the energy efficiency component. SGC will only complete the pre-existing contracts and no new activities will be included in this project. CPIC has legal status as a State Owned enterprise (SOE) and is one of only five power generation corporations in China as the result of the restructuring and reform of the power sector, which has an operational business in coal based power generation, hydropower, and nuclear power. It made great efforts to promote energy conservation and reduction of pollutant emissions particularly in its managed power plants in northern, north-eastern, eastern and north-western regions.

Fourteen power plants in this newly revised project will be identified as the pilot sites by CPIC including Shanghai Waigaoqiao, Fuxin, Yuanbaoshan, Puguang, Tongliao, Huolinhe, Changshu, Pingyu; Baihe, Hechuan in Chongqing; Anxi in Gansu; Dafeng in Jiangsu; Yihe-gong Wind Power in Inner Mongolia; Hongze Biomass etc.

## **2.3. Project Duration**

The project duration is 3-year starting from 2007 and will be completed at the end of 2009.

## **Part 3. Outputs and Its Expected Results of the Project**

### **Outputs 3.1 Provide basis and suggestion on the utilization policy of environment protection and renewable energy related to the developing of the National Strategic Policy Framework for Energy Efficiency**

The approach of developing strategic framework will closely integrate project activities to the achievement of the energy conservation objective, with focus on energy solutions that benefit environmental protection and ecological sustainability. The framework will pay main and particular attention to promote and support activities in the affiliated companies of CPIC. The long-term objective of the strategic plan will be to secure a flow of high quality cost effective activities that guarantee the delivery of broadly based development and environmental benefits, and that contribute to the achievement of the national energy conservation objective. The strategic framework will create an enabling environment for China's national energy conservation objective. It will provide services in market analysis and opportunities, investor guidelines, sector briefs, trends, application procedures and rules and regulations that are specific to engaging in China's power sector.

The Chinese government has developed a long-term, strategic plan for end-use energy efficiency projects in China. Its development has been guided by a wide range of energy experts and stakeholders within various parts of China's energy domain. It fully recognizes that the country faces a number of barriers in achieving its energy efficiency goals and has been designed to address the gaps that exist in current efforts, and to outline interventions necessary to address them. The strategic framework will create an enabling environment for achieving China's energy conservation objective in power sector, taking into consideration the following:

- Study on the strategy and roadmap for achieving the energy conservation objectives of the "11<sup>th</sup> Five-year Plan", the roadmap should give details of the expected relative proportion of energy savings to be achieved by the power sector;
- Development of a breakdown of energy-saving objectives and follow-up plans for the pilot power plants;
- Based on a cost-benefit analysis, develop the priority and the implementation schedule of the energy conservation measures during the period covered by the 11<sup>th</sup> Five-year Development Programme";
- Execute the relevant national energy conservation plan for achieving the energy conservation objectives of the "11<sup>th</sup> Five-year Development Programme";
- Develop self monitoring plans and perform self-monitoring for achieving energy conservation objective in the 11<sup>th</sup> Five-year Development Programme".
- Do the national and international exchanges.

Expected Results:

- Provide suggestions for the developing of National Strategies of Power Sector for Achieving Energy-Conservation Objective of the 11<sup>th</sup> Five-year Development Programme.
- Cost-Benefit Analysis on Energy Conservation Measures in Power Sector for the 11<sup>th</sup> Five-year Development Programme.

### **Outputs 3.2 Strengthening Technical and Managerial Capacity of Pilot Power Plants**

China has made great efforts and progress to reduce the energy consumption for power generation in particular coal consumption per unit KWh has been decreased significantly compared to the level of the few years ago. However, there exists still a gap in power sector between China and the developed countries such as Europe, US, Japan and Australia, which their technologies for combustion and power generation are much advanced.

The larger the generation unit, the smaller amount of coal consumption for unit of electricity output is. In 2005, per kWh electricity on average in the coal fired plants consumed 374.00 gce. For unit generating capacity at 300MW, coal consumption rate is at 341.88 g/kwh; for those units with 600MW, the number is 326.34g/kwh. For supercritical units, the rate is at

320.58 g/kwh, comparable to, or even higher than OECD levels. There are 6911 power generation units with the capacity larger than 6.00 GW in China, totaling 393GW, averaging 56.9 MW per unit. There are only 333 units with capacity larger than 300 GW, accounting for less than 40% of the total installed capacity. Due to the large numbers of small coal-fired units, China's average coal consumption is 50g/kwh more than the advanced world standard. Currently 100 million tce per year are wasted in power generation in China, based on the advanced world standard.

In term of water saving in the power generation process, ACC has a comparative advantage at the current stage in the world. China has just started a process to understand how best of the technology could be applied to the power sector of China in terms of achieving the environmental sustainability, and how it is viable for economic aspects.

The prevention and control of pollutants is major challenges for China power sector to meet the environmental objective in the 11<sup>th</sup> Five-year Development Programme. In the coal-fired power sector, conventional pollutants are the major concerns, accounting for 50% of the national totals. In particular, SO<sub>2</sub> emissions were on the increase instead of reductions as required by the government. Table 1 provides an overview of the pollutants in total and in unit electricity terms. In this area, the advanced technologies are available in the world. The challenges are how best the technologies could be transferred to China.

Table 1 Total and Per Unit of Electricity Emissions of Pollutants in 2004

<b>Chemicals</b>	<b>Total (million tons)</b>	<b>Unit Emission Rate (g/kwh)</b>
SO <sub>2</sub>	12.0	6.63
NO <sub>x</sub>	6.5	3.59

This output will be undertaken through the provision of four similar, but independent, components:

- Assessment and analysis of various advanced combustion and power generation technologies;
- Acquire advanced combustion technology and power generation process in the world, and master certain application and test capacity.
- Learn the mature Air Cooled Condenser technology in the world and its economic analysis method, and improve application capacity and management level.
- Learn the advanced flue gas emission and control technology in the world and improve the application capacity.

Expected Results:

- Assessment and Roadmap on the New Technologies for Emissions Reduction in Power Sector
- Improve the theoretic level and practical experience of CPIC in the energy saving, reduction of energy consumption and environment protection.



The output will be achieved through purchasing relevant equipments to increase and realize the benefits of energy conservation, reduction of energy consumption and environmental protection, in particular, the GIS equipment. GIS is the key equipment as important as the generator, turbine and boiler in power plant. All the benefits of energy conservation, reduction of energy consumption and environmental protection of this project would be achieved through safe and stable operation of this equipment. GIS is also a kind of environmental protection equipment, which has small footprint and size. Its electromagnetic pollution to environment will be decreased obviously compared with using the conventional equipment, which is several times bigger in size than GIS equipment. Furthermore, the power plants using the imported GIS equipment selected by the project are located whether in load centre or in remote area. It will give strong support to guarantee the safe and stable operation of power network and power supply for people in poor areas.

### **Outputs 3.3. Promoting Grid Access of Wind Power for Power Sector**

Renewable energy in China has gained high importance in recent years, and has been prioritized as the only way to deal with the growing energy demand by supplying the sustainable energy, particularly for remote areas, to reduce the severe environmental pollution caused by coal burning, and to alleviate country's heavy reliance on oil import.

China has made remarkable progress in small hydropower and solar energy. China has ranked the first in the world in using small hydropower and producing solar water heaters. Wind power, solar photovoltaic, and biogas are growing very rapidly as well. Though the integrated share of renewable energy in China's energy matrix is still tiny, its importance in the energy strategy has been confirmed. Renewable energy will keep fast developing in the following years. China has set the target of increasing renewable energy to 15% (excluding large hydro power) of primary energy consumption in 2020.

According to China's new Renewable Energy Law (passed in February 2005, and taken effect from Jan. 1st 2006), a 10% target would represent about 60 GW of "new" renewables power capacity by 2010, out of an expected power sector capacity of 600 GW in total. And by 2020, the power capacity from renewables is about 190 GW, which is about 20% out of a predicted 950 GW total power sector capacity (prediction by China Electric Power Research Institute). Wind power is planning to develop an installed capacity at 5 GW in 2010 and 20 GW in 2020. Its utilization is rising rapidly with the growing rate of 101% from 2003 to 2004 (NDRC, 2005).

In addition to the policies and programs described above, there are other financial incentives in place to support wind power development in China, including direct subsidies for government capacity building, subsidized R&D, tax-related incentives, and pricing incentives.

The wind concession program has been very important for China, but it also has not yet been a complete success. Though cost competition and cost reductions are principal goals of the wind concession program, one of the concerns that has been raised is that some of the winning bidders have offered tariffs that some believe to be too low to achieve project profitability, and that some of these projects may therefore not ultimately be developed (only ~50 MW of the 1500 MW of wind under contract under the concessions are now installed). Again, this experience is mirrored in the U.S. and Europe, where project completion rates have sometimes been well below 70%.

The current wind tendering rules and guidelines appear most attractive to China's five major power companies, established upon the dismantling of the State Power Corporation (SPC) in December 2002. With the exception of the first two 'pilot' projects, the winning concession bidders are all connected to these five major Chinese generating companies. These companies might prefer to lose a bit of money on wind projects (that they could make up with the revenue from their other energy projects) in order to establish a presence in the wind sector and discourage new entrants. These companies may also be able to absorb any risks associated with wind concession projects and can finance the wind projects on their own balance sheets. Though this might be beneficial for some wind power development, if there are no opportunities for smaller projects, new independent developers, or to encourage foreign investment in China's wind industry, this may create unnecessary barriers to wind development in China.

Additionally, the NDRC has been signalling for some time its intention to establish a renewables portfolio standard or mandatory market share that would require the large generating companies to diversify their generation portfolios and incorporate a fixed percentage of generation from renewables. This too could motivate the large generating companies to bid aggressively in the wind concessions to ensure they are able to control the primary wind development areas. These forces may allow the wind concession projects to proceed to completion, despite in some cases inadequate profitability. In this instance, however, questions have been raised as to whether such a development model is sustainable over the long term for wind power in China given the lack of profitability and boom-bust cycles that are often endemic to government-run tenders.

Potential activities of this newly revised project which the development of wind power for power corporations would undertake include are:

- Identification of barriers for wind development in policy, institutional, technical aspects in power sector;
- Assessment and analysis of wind farm development and planning in power sector;
- Study and survey of the policy incentives for grid access of the wind power;
- Development of the priority and the implementation schedule of the wind development plan for power sector based on a cost-benefit analysis;
- Do national and international exchange and acquire advanced technology, lawful policy and management method.

Expected Results:

- Provide suggestions for the Strategic Policy Framework and Action Plan of the Power Sector for Wind Power Development in China;
- Cost-Benefit Analysis on Wind Power Development in Power Sector
- Form feasible methods and stipulations benefit for the wind development and wind power grid access and create necessary condition for the modernization and scale of wind power in China.

#### Part 4. Management Arrangements

UNDP, CICETE and CPIC are the key stakeholders of the on-going project management. UNDP will provide implementation support services as needed. CICETE will serve as the Implementing Partner (Executing Agency) Based on the newly agreed management arrangement of the project, CPIC will become the implementing agency of the project particularly working on the energy efficiency component.

A Project Steering Committee will be established, consisting of UNDP, CICETE, and CPIC. The Steering Committee shall meet as often as needed but at least once a year, either in Beijing or at project demonstration sites. The Project Management Office (PMO) of the project will be established in Beijing based in the office of CPIC to assist the day-to-day management of the project. A *National Project Director* and a *National Project Coordinator* (NPC) will be assigned by CPIC to lead the PMO and all operational activities of the project.

#### Part 5. Government Cost-sharing of the Project

The project will have access to existing technologies and system that have been developed by the pilot power plants to promote energy efficiency and wind energy. In particular, \$15 million of government cost-sharing will be spent to purchase GIS and switches, and wind energy equipment. The following power plants are identified by CPIC for purchasing the above equipment: No. 2 Power Plant in Pingdingshan (PDS), Sheyanggang Power Plant in Jiangsu (SYG), Jishixia Hydropower Plant in Henan (JSX), Caojing Power Plant in Shanghai (CJ).

The government cost-sharing from CPIC shall, in accordance with the schedule of payments set out below, be transferred to UNDP via CICETE annually starting from 2007 to 2009.

Schedule of Payments	Amount (USD)
November, 2007	1.00 million (CJ and PDS Contracts: 15%)
November, 2008	6.00 million (CJ and PDS Contracts: 80%, JSX Contract: 15%)
November, 2009	5.25 million (CJ and PDS: 5%, JSX: 80%, SYG:15%)
November, 2010	2.75 million (JSX: 5%, SYG: 85%)

CICETE will inform UNDP when the government cost-sharing is transferred via an e-mail message or letter. The above schedule of payment takes into account the requirement that the payment shall be made in advance of the implementation of the planned payments for equipment procurement contracts.

## **Appendix-CPIC Project Organization**

### **Project Leading Group**

Head: Shi Chengliang Vice President of CPIC  
Deputy Head: Wei Guangyao Secretary of China Electric Motor Engineering Association

### **Project Management Office**

Director: Li Hui, Deputy Director General of International Cooperation Dept. of CPIC  
Deputy Director: Wei Guangyao

Project Manager: Song Xiumin, Senior Engineer of former SPC

Member: Shu Yongge Production Dept. of CPIC  
Li Zhaohui: Intl. Cooperation Dept. of CPIC  
Cheng Yan: Planning Dept. of CPIC  
Shun Dianhu: Project Dept. of CPIC

## Annual Work Plan

### Annual Work Plan 2007

EXPECTED CP OUTPUTS and indicators including annual objective	PLANNED ACTIVITIES <i>List all activities including M&amp;E to be undertaken during the year towards stated CP outputs</i>	TIMEFRAHE				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Source of Funds	Budget Description	Amount(US\$)
<b>Output 6.1</b> Energy consumption per unit of GDP decreased.	1. Provide basis and sugges- tion for the Developing of National Strategic Policy Framework for Energy Effi- ciency		X	X	X	CICETE	UNDP	71200 Training	20,000
			X		X		UNDP	74500 Miscellaneous	20,000
<b>Output 6.2</b> Strategies and favorable policies for China's 2010 and 2020 renewable and new energy objective de- veloped, notably a roadmap for new and renewable en- ergy industry and technolo- gies	2. Strengthening Technical and Managerial Capacity of Pilot Power Plants			X		CICETE	UNDP	71200 Natl Consultant	10,000
					X		UNDP	71600 Travel	5,000
					X		UNDP	74500 Training	20,000
			X	X	X		CPR	72200 Equipment	1,000,000
					X		UNDP	74500 Miscellaneous	30,000
							UNDP	75100 F & A	10,000
3. Promoting Grid Access of Wind Power for Power Sector				X		CICETE	UNDP	71200 Intl Consultant	10,000
					X		UNDP	74500 Training	15,000
					X		UNDP	74500 Miscellaneous	20,000
<b>TRAC</b>								<b>160,000</b>	
<b>TOTAL</b>								<b>1,160,000</b>	

Annual Work Plan 2008

EXPECTED CP OUTPUTS and indicators including annual objective	PLANNED ACTIVITIES <i>List all activities including M&amp;E to be undertaken during the year towards stated CP outputs</i>	TIMERRAME				RESPONSIBLE PARTY	PLANNED BUDGET			
		Q1	Q2	Q3	Q4		Source of Funds	Budget Description Amount(US\$)		
<b>Output 6.1</b> Energy consumption per unit of GDP decreased.	1. Provide basis and sugges- tion for the Developing of National Strategic Policy Framework for Energy Effi- ciency		X			CICETE	UNDP	71200 Intl Consultant	20,000	
			X	X	X		UNDP	71300 Natl Consultant	15,000	
				X			UNDP	74500 Training	20,000	
							UNDP	74500 Miscellaneous	26,000	
<b>Output 6.2</b> Strategies and favorable policies for China's 2010 and 2020 renewable and new energy objective de- veloped, notably a roadmap for new and renewable en- ergy industry and technolo- gies	2. Strengthening Technical and Managerial Capacity of Pilot Power Plants		X	X		CICETE	UNDP	71200 Intl Consultant	10,000	
			X	X			UNDP	71300 Natl Consultant	10,000	
				X			UNDP	74500 Workshop	20,000	
			X				CPR	72200 Equipment	6,000,000	
					X		UNDP	74500 Miscellaneous	20,000	
					X		UNDP	75100 F & A	60,000	
			X				UNDP	71200 Intl Consultant	10,000	
			X	X			UNDP	71600 Travel	4,000	
					X		UNDP	74500 Workshop	15,000	
					X		UNDP	74500 Training	30,000	
				UNDP	74500 Miscellaneous					
<b>TRAC</b>									260,000	
<b>TOTAL</b>										6,260,000

Annual Work Plan 2009

EXPECTED CP OUTPUTS and indicators including annual objective	PLANNED ACTIVITIES <i>List all activities including M&amp;E to be undertaken during the year towards stated CP outputs</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Source of Funds	Budget Description	Amount(US\$)
0									
<b>Output 6.1</b> Energy consumption per unit of GDP decreased.	1. Provide basis and suggestion for the Developing of National Strategic Policy Framework for Energy Efficiency		X			CICETE	UNDP	71200 Intl Consultant	10,000
			X				UNDP	71300 Natl Consultant	6,000
			X				UNDP	74500 Workshop	20,000
				X			UNDP	74500 Miscellaneous	4,000
							UNDP	75100 F & A	
<b>Output 6.2</b> Strategies and favorable policies for China's 2010 and 2020 renewable and new energy objective developed, notably a roadmap for new and renewable energy industry and technologies	2. Strengthening Technical and Managerial Capacity of Pilot Power Plants		X				UNDP	71300 Natl Consultant	1,000
			X	X			CPR	72200 Equipment	5,250,000
			X				UNDP	74500 Miscellaneous	35,000
				X			UNDP	75100 F & A	52,500
	3. Promoting Grid Access of Wind Power for Power Sector		X				UNDP	71300 Natl Consultant	3,000
			X				UNDP	71600 Travel	5,000
				X			UNDP	74100 Publication	6,000
					X		UNDP	74500 Miscellaneous	10,000
<b>TRAC</b>									152,500
<b>TOTAL</b>									5,402,500

Annual Work Plan 2010

EXPECTED CP OUTPUTS and indicators including annual objective	PLANNED ACTIVITIES <i>List all activities including M&amp;E to be undertaken during the year towards stated CP outputs</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Source of Funds	Budget Description	Amount(US\$)
<b>Output 6.1</b> Energy consumption per unit of GDP decreased.	1. Provide basis and suggestion for the Developing of National Strategic Policy Framework for Energy Efficiency	X	X			CICETE	UNDP	71300 Intl Consultant	5,000
							UNDP	74500 Workshop	10,000
<b>Output 6.2</b> Strategies and favorable policies for China's 2010 and 2020 renewable and new energy objective developed, notably a roadmap for new and renewable energy industry and technologies	2. Strengthening Technical and Managerial Capacity of Pilot Power Plants		X			CICETE	UNDP	71600 Travel	3673
			X				UNDP	74100 Publication	10,000
			X				CPR	72200 Equipment	2,750,000
					X		UNDP	75100 F & A	27,500
			X				UNDP	71400 Publications	
	3. Promoting Grid Access of Wind Power for Power Sector				X	UNDP	74500 Miscellaneous	15,000	
<b>TRAC</b>									81,173
<b>TOTAL</b>									2,851,173



	Budget Previous	Budget Revised
2004	2,095,080.00	2,095,080.00
2005	1,180,111.00	1,180,111.00
2006	5,807,831.00	5,326,049.00
2007	1,750,000.00	1,160,000.00
2008	11,293,420.00	6,260,000.00
2009		5,402,500.00
2010		2,831,173.00
	22,126,442.00	24,254,913.00

UNDP	1,013,700.00	1,034,774.00
Govt	21,112,742.00	23,220,139.00
CICETE	22,126,442.00	24,254,913.00

0.00

### Minutes of Tripartate Review (TPR) Meeting

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**Proposal Project ID:** 00034616  
**Awarded Project ID:** 00036898 (CPR/04/306)  
**Project Title:** Developing Interconnection of Nation-wide Electricity Network and Improving Energy Efficiency in China  
**Date:** 8 February 2007  
**Venue:** UN Conference Room

**Participants:** Mr. Kishan Khoday, ARR/Team Leader of Energy and Environment, UNDP  
Mr. He Ping, Programme Manager, Energy and Environment, UNDP  
Ms. Liu Pengbo, Programme Assistant, Energy and Environment, UNDP

Ms. Tan Huiqin, Deputy Division Chief, Division I, CICETE  
Mr. Wei Guangyao, Deputy NPD / Senior Engineer at Professor Level  
Ms. Li Zhaohui, Assistant Manager, Dept. of International Cooperation, China Power Investment Corporation  
Ms. Song Xiumin, Expert, Senior Engineer

**Agenda:** 1. Review of APR for 2006  
2. Project substantive revision

**Presentation:** A short presentation made by China Power Investment Corporation

#### I. Background

The meeting for the project was held on 8 February 2007 in UNDP office. The meeting aims to review project progress, evaluate the performance of the project, and to discuss the issues on the substantive revision for the project.

#### II. Project Performance and Issues

- It is a very successful year in 2006 in terms of the delivery of the project. A series of procurement activities were implemented for GIS equipment in Tianjing and Hubei, which their installation has improve energy efficiency greatly to contribute to the achievement of project outputs. In particular, the project achieved its delivery of US\$5.27 million in 2006, the original delivery target of the project is



US\$ 2 million.

- The on-going power grid project mainly focuses on promoting the interconnections of regional grids, resolving the relevant issues concerning laws, regulations and policies, and enhancing technical and managerial capacity and improving the energy efficiency of the national grids. However, the situation has been changed along with the power sector reform of the country, the responsibility of power generation, transmission and utilities have been more clearly defined. In particular, all the power companies were requested to contribute to achieve energy conservation targets of 11<sup>th</sup> FYI Programme, energy conservation and emission reduction has become the major focuses of the power companies. To this end, CICETE proposed that UNDP's support could be shifted from solely promoting energy efficiency of national grid inter-connections to assisting the power companies to achieve their energy conservation targets.
- The current implementing agency of the project is State Grid Corporation (SGC), its roles and responsibilities have been partially shifted to the power generation companies due to the restructuring of the power sector in China. In particular, the power generation component has been shifted to power generation corporations such as China Power Investment Corporation (CPIC), CPIC is one of five power generation corporations in China (five power generation corporations, two grid corporations in China). In terms of the achieving the energy conservation targets for power generation corporations, CPIC will be a strategic partner and CPIC already expressed their interests to CICETE to join the project. CICETE proposed that CPIC could become the second implementing agency of the project alongside SGC particularly working on the energy efficiency component.
- A substantive project revision proposal is presented by CICETE and CPIC at the meeting. This substantive revision reflects the changes of the project objectives, major activities and outputs for the on-going project. The objective of the newly revised project is to assist the participating China Power Investment Corporation (CPIC) for achieving their energy conservation target and environmental protection goals in the 11<sup>th</sup> Five-year Development Programme. This will be achieved through developing a strategic policy framework for power sector with greatly direct sustainable development and environmental protection benefits for reduction of coal and water consumption for power generation, promotion of renewable and nuclear energy, reduction of air pollutants emissions by learning international best practices from the other countries. The newly revised project will support the establishment of pilot and demonstration studies of power sector in particular the national grid where the energy efficiency is most strategically promoted. It will also support the managerial and technical capacity of participating SGC, CPIC and their affiliated companies linking to national policy development and capacity building frameworks that could potentially influence future economic development paradigms for power sector.

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- UNDP believe that the linkage between the equipment procurement and overall objectives of the project (energy efficiency promotion) is not well established in the proposal. To this end, UNDP requested a further clarification in the new proposal how the equipment procurement could contribute to the increase of energy efficiency.

**III. Conclusions**

- The participants believe that it is a successful year in term of the project implementation particularly its high delivery.
- CICETE and CPIC were requested to revise new proposal in particular to explain how the equipment procurement of the project could contribute to the objective of the project.
- In terms of next steps, UNDP representative will report the Senior Management of UNDP and get back to CICETE and CPIC.

**Drafted by**

He Ping, Programme Manager, E&E:

\_\_\_\_\_ Date: \_\_\_\_\_

**Cleared by**

Kishan Khoday, Team Leader, E&E:

\_\_\_\_\_ Date: \_\_\_\_\_



# 中国国际经济技术交流中心

China International Centre for Economic and Technical Exchanges

1<sup>st</sup> November 2006

Dear Mr. Malik,

**Subject: Minutes of Regular Joint Management Meeting**  
**between UNDP and CICETE in October 2006**

I am pleased to share with you (attached) the Minutes of Regular Management Meeting between our two offices on 27 September 2006. The minutes is prepared and finalized with your office's comments integrated.

Best regards,

Yours Sincerely,

Wang Yue  
Director General  
CICETE

RECEIVED  
By fan.feng at 4:17 pm, 11/3/06

Mr. Khalid Malik  
Resident Representative  
UNDP, Beijing

UNDP BEIJING
FILE:
Sr MNGT:
CC:
Action:
FILING

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邮编: 100011  
电子邮件: program@cicete.org

## **Minutes of the UNDP-CICETE Joint Management Meeting**

**Date and time:** 27 September 2006 (Wednesday), 9:30am - 11:20am  
**Venue:** Large Conference Room, CICETE

A UNDP-CICETE joint management meeting (JMM) was held on 27 September 2006 at CICETE. The meeting was co-chaired by Mr. Khalid Malik (Resident Representative of UNDP in China) and Mr. Wang Yue (Director-General of CICETE).

At the beginning of the meeting, the two co-chairs welcomed the participants and commended the staff in the two offices for the achievements in the past two months, both in the project implementation and formulation. The two co-chairs emphasized that, as the end of the year is coming and also due to the current low delivery rate, both offices should step up efforts to reach the TRAC 1&2 delivery target of US\$ 9.9 million by the end of the year. At the same time, the two co-chairs recalled the progressing partnerships between the two offices with MOU signed and GMS fees issue settled.

Mr. Malik briefed the meeting on the recent discussions on UN reform, e.g. the Four Ones (one leader, one office, one programme and one budget). He emphasized the importance of partnerships with the private sector in UN efforts. He also hoped that a programmatic approach would be taken by the two offices in facing the challenges ahead.

The meeting then reviewed the following issues (see the attached agenda for the JMM): programme financial resources, delivery, and pipeline.

### **A. Programme Financial Resources**

UNDP made a presentation on the overview of the programme financial resources, including budget approvals, programme deliveries (core and non-core) and resources mobilizations. Regarding the overall resource mobilization target (RMT) for the current country programme cycle (2006-2010), the presentation showed that the overall resource situation (i.e. budget buildup) is quite healthy, i.e. the total approved budgets as of now plus the hard pipeline budgets for the CP cycle (2006-2010) is US\$ 292 million against the RMT target of US\$ 280 million. However, more efforts should be made in mobilizing government and third-party cost sharing.

### **B. Delivery**

According to the UNDP presentation based on information from Atlas, the total approved budget for 2006 was US\$ 77.3 million and total year-to-date delivery was US\$ 6.5 million (8.4% of the approved budget). Atlas showed that the total year-to-date TRAC 1&2 delivery was US\$ 0.5 million, while CICETE's system provided a total year-to-date TRAC 1&2 delivery of US\$ 1.9 million. The discrepancy was caused by the time gap between actual disbursements by CICETE and recording in Atlas.

Both offices agreed that more efforts were needed in speeding up implementation. Reasons for the low delivery rate and how to avoid the phenomenon of "delivery in the last season"

were also discussed in the meeting.

Mr. Wang Yue pointed out that new formulations may not help much in terms of delivery in 2006. Therefore, he emphasized that efforts should be focused on the ongoing projects in order to achieve the delivery target for 2006. Mr. Malik suggested that, if necessary and properly justified, some projects can front-load TRAC 1&2 budgets from 2007 to 2006.

During the discussions on delivery, a few specific issues were also covered.

- CICETE mentioned the issue of timely approval of budget revisions so as not to delay project deliveries. Both sides agreed that due business processes are crucial for efficiency and quality of project implementation.
- CICETE mentioned the Power Grid Project, under which government cost sharing may be increased from US\$ 12 million to US\$ 15 million. This gives rise to the issue of the ration of government cost sharing to TRAC 1&2. Mr. Malik said that the issue can be dealt with and clarified through an exchange of letters between the two offices.
- Mr. Wang Yue introduced the background on CICETE's regulations on procurement of vehicles under UNDP-supported projects. The large ratio between TRAC resources and government cost-sharing and the use of government cost-sharing in procurement caught great attention from the National Administration of Auditing. Therefore, every vehicle procured under each project should be justified during the formulation stage in the future. Mr. Wang Yue promised that CICETE will formally share the regulations with UNDP and keep UNDP staff better posted.
- On the issue of fees for international consultants, Mr. Malik said that it may be a time for reviewing the fees for both international and national consultants. Mr. Meyer informed that meeting that UNDP HQ has a clear policy on fees for international consultants, which was announced a few years ago. According to the policy, the daily rate for an international consultant can go up to US\$ 750 depending on the complexity of the job and the qualifications of the consultant. Both sides agreed that the rate could be flexible with the maximum US\$ 750 for remuneration per working day. However, both sides should try their best to identify the best consultants who know China and have a real value for the projects. At the same time, there might also be a flexible rate for national consultants based on future discussions between the two offices.
- On implementation of the GMS fees against government cost sharing, Mr. Wang Yue said the thorough discussion between Mr. Malik and himself on the issue was communicated to every project staff in CICETE through the division directors at CICETE. Currently, there were 20 on-going projects with government cost-sharing budget. The two sides agreed that the GMS against government cost sharing should be implemented immediately. The two co-chairs agreed that Ms. Wang Weili from CICETE and Ms. Tisot from UNDP would take the lead in reviewing each case for each project, and each budget increase should be justified, and relevant implementation of the third-party c/s fees should be conducted accordingly.

### C. Pipeline

Before the joint management meeting, a preparatory meeting was held in CICETE with participation of Ms. Tisot, Mr. Lu Lei and Ms. Jiang Lingyuan from UNDP and Mr. Zhao Zhongyi, Mr. Deng Zhihui and Mr. Zhou Taidong from CICETE. At the meeting, both sides reviewed the pipeline list and agreed that four projects in the soft pipeline could be upgraded to the hard pipeline: i.e. (1) Government Institutional Reform; (2) Second Phase of Integrity; (3) Model Exploration for Constructing New Socialist Countryside; (4) Water Governance and Safety in Rural Areas. At the same time, projects related to HIV/AIDS and gender were discussed. The JMM thereby did not have detailed discussion on the pipeline lists and maintained the decisions made in the preparatory meeting.

For the project of Promoting Rule of Law and Civil Society Development in China, it was agreed that there would be no more formulation mission after getting the approval from EU headquarters. UNDP Beijing office would help design the UNDP format project document based on the EU's concept note. At the same time, it was generally agreed that the proposal on pro-poor legislation from the Ministry of Civil Affairs could be incorporated into this project.

Mr. Wang Yue then summarized the meeting by wishing all a happy national holiday and also hoping that the two offices would step up efforts to reach the target of delivery and approval of budget. Mr. Malik gave a brief anticipation on the UN reform and informed the meeting of the arrival of a new country director, who would be specifically responsible for UNDP's activities.

#### **D. Decisions/Follow-up actions**

- CICETE will formally share with UNDP the CICETE regulations on procurement of vehicles under UNDP-supported projects.
- UNDP and CICETE will work together to start implementing the GMS against government cost sharing as soon as possible.
- The next JMM will be held in early November 2006.



## Agenda for the Joint UNDP-CICETE Management Meeting

**Date:** 27 September 2006 (Wednesday)

**Venue:** CICETE Meeting Room

**Co-Chairs:** Mr. Wang Yue, Director-General, CICETE  
Mr. Khalid Malik, Resident Representative, UNDP China

- 09:30 – 09:40 Opening remarks by Mr. Wang Yue
- 09:40 – 09:50 Opening remarks by Mr. Khalid Malik
- 09:50 – 10:00 An overview of the programme financial resources (to be presented by UNDP). Specific topics include:  
- *Budget approvals*  
- *Programme deliveries (core and non-core)*  
- *Resource mobilizations*
- 10:00 – 11:00 Delivery (to be presented by CICETE). Specific issues include:  
- *Year-to-date delivery and expected delivery by the year end*  
- *Mobilization and transfer of government cost sharing*  
- *Fees for consultants*  
- *CICETE regulations on procurement of vehicles*
- 11:00 – 12:00 Pipeline (to be presented by CICETE). Specific issues include:  
- *Timetable for formulations*  
- *New proposals for pipelines*  
- *Implementation of the GMS fees against government cost sharing and third-party cost sharing*
- 12:00 – 12:15 Wrap-up by Co-Chairs

## Participants in the Joint UNDP-CICETE Management Meeting

(27 September 2006 at CICETE)

### CICETE

Mr. Wang Yue	Director-General
Ms. Wang Weili	Deputy Director General
Mr. Zhao Zhongyi	Deputy Director General
Mr. Deng Zhihui	Division Chief
Mr. Zhang Shenggeng	Division Chief
Ms. Wang Jing	Division Chief
Ms. Zhu Duanni	Division Chief
Mr. Bai Chengyu	Division Chief
Mr. Liu Jun	Division Chief
Mr. Zhou Taidong	Programme Officer

### UNDP China

Mr. Khalid Malik	Resident Representative
Ms. Alessandra Tisot	Senior Deputy Resident Representative
Mr. Renaud Meyer	Deputy Resident Representative
Mr. Kishan Khoday	Team Leader (Energy & Environment)
Ms. Hou Xinan	Team Leader (Social & Economic Development)
Mr. Wu Xiaohui	Team Leader (Rule of Law and Democracy)
Mr. Luo Zhiyang	Team Leader (Regional and South-South Cooperation)
Mr. Lu Lei	Team Leader (Management Support)
Ms. Luan Liying	Corporate Advisor
Ms. Jiang Lingyuan	Directorate