



Project Administration Memorandum

Project Number: 39019
Loan Number: 2260
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PRC: Inner Mongolia Autonomous Region Environment Improvement Project

The project administration memorandum is an active document, progressively updated and revised as necessary, particularly following any changes in project or program costs, scope, or implementation arrangements. This document, however, may not reflect the latest project or program changes.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of November 2006)

Currency Unit	–	yuan (CNY)
CNY1.00	=	\$0.12645
\$1.00	=	CNY7.90770

ABBREVIATIONS

ADB	–	Asian Development Bank
CO ₂	–	carbon dioxide
EARD	–	East Asia Department
EIRR	–	economic internal rate of return
EMP	–	environmental management plan
FIRR	–	financial internal rate of return
GDP	–	gross domestic product
GIMAR	–	government of Inner Mongolia Autonomous Region
IEE	–	Initial environmental examination
IMAR	–	Inner Mongolia Autonomous Region
JBIC	–	Japan Bank for International Cooperation
KfW	–	Kreditanstalt für Wiederaufbau
NEB	–	net economic benefit
NFB	–	net financial benefit
NO _x	–	nitrogen oxides
PIA	–	project implementing agency
PPMS	–	project performance management system
PRC	–	People's Republic of China
PMO	–	project management office
SO ₂	–	sulfur dioxide
SOE	–	State-owned enterprise
TA	–	technical assistance
TSP	–	total suspended particulates

WEIGHTS AND MEASURES

Kg	–	kilogram
Km	–	Kilometer
m ²	–	square meter
m ³	–	cubic meter
MW	–	megawatt (1 million watts)
T	–	ton (1,000 kg)

NOTE

In this report, "\$" refers to US dollars and "tons" refers to metric tons.

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LOAN PROCESSING HISTORY

a.	Approval of project preparatory technical assistance	29 April 2005
b.	Fact-finding	8-25 November 2005
c.	Management Review Meeting (MRM)	15 March 2006
d.	Appraisal Mission	17March-3 April 2006
e.	Staff Review Committee (SRC)	21 April 2006
f.	Loan Negotiations	21-23 August 2006
g.	Board circulation	7 September 2006
h.	Board consideration and approval	29 September 2006
i.	Loan Inception Mission	8-14 April 2007
j.	Loan agreement signing	
k.	Loan effectiveness	

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Environmental improvement resulting from a reduction in atmospheric and water pollution	Annual emission reduction of 787,243 t of CO ₂ , 15,105 t of SO ₂ , 2,272 t of NO _x , and 19,136 t of TSP in the project area. Annual discharge reduction of 14,126 t of COD, 5,738 t of BOD, 7,600 t of SS, 898 t of NH ₃ -N, 1,234 t of TN, and 88 t of TP in the Project area. A total of about 30,000 poor households benefited by the gas and central heating supply connection and tariff discounts starting 2010.	IMAR and project municipalities and counties statistical yearbooks	Assumptions <ul style="list-style-type: none"> • The Project is implemented as planned • Complementary reforms and activities are implemented • Major changes in macroeconomic condition do not affect gas and coal markets
Outcome Efficient, safe, and reliable gas and heating supply and wastewater treatment systems that conserve energy and water resources in the project areas	Reliable gas services to about 1 million urban population, with annual supply capacity of 434.5 million m ³ of natural gas and 21.25 million m ³ of CNG for residential, commercial, and industrial purposes in the project cities by 2010 Reliable central heating services to about 1 million urban population, with a coverage area of 25.776 million m ² and 826 MW heating supply capacity by 2009 Closure of 396 small inefficient coal-fired boilers and an average 20% efficiency improvement in heating supply by 2009. More than 85% of the household coal fired stoves for heating and/or for cooking substituted by central heating and/or gas supply by 2010.	PPMS and PCR IMAR and project cities statistical yearbooks Reports and information provided by the PMO and the PIAs Implementation and impact monitoring by the GIMAR and ADB Ex-post monitoring by the GIMAR Regular monitoring by an independent institute engaged by the PMO during land acquisition, at completion and 1 year after	Assumptions <ul style="list-style-type: none"> • GIMAR continues enforcing environmental standards • Project implementation according to schedule • Continued GIMAR effort in reforming the gas and heating sector. • Continued GIMAR effort in energy conservation and improvement of primary energy mix. • Complementary social services to the poor are in place. • Affected persons are compensated and resettled in a timely manner • Sufficient gas and heating demand • The environmental management and mitigation plan is implemented. • People effected able to restore their living standard

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
	<p>784 workers affected by the closure of small boilers will be reemployed</p> <p>773.4 mu of land acquired permanently and 9,801.8 mu occupied temporarily, effecting 133 people permanently and 177 people temporarily by 2009</p> <p>Daily wastewater treatment capacity increases by 86,000 m3 in Wulateqian and Wulatehou by 2009.</p> <p>Treated water meets the national discharge standard and the 30 million t of the treated grey water recyclable annually by 2009.</p> <p>Energy efficiency improves from 58% to 80% (by 22%) and energy conserved annually equivalent to 540,000 t of standard coal by 2010.</p>		<p>Risks</p> <ul style="list-style-type: none"> • Loan does not become effective in time due to domestic approval procedure • Construction delayed due to internal approval procedure • Compensation may not be paid according to the resettlement plan • The institutional and financial reform action plans are not implemented by PIAs
<p>Outputs</p> <p>1. Improved central heating systems in the project areas</p> <p>2. Provision of gas transmission and distribution systems in the project areas</p> <p>3. Enhanced wastewater treatment capacity in project areas</p>	<p>A well-functioning central heating supply system in 8 project areas with 88 km of heating pipeline, 21 boilers, and 138 heating exchange stations by 2009; closure of 396 small coal-fired boilers by 2009.</p> <p>Construction of a 401 km gas transmission trunk pipeline from Changqing to Linhe, including 7 transmission and 8 valve stations, and a 338 km urban gas distribution pipeline in 8 project areas including 1 CNG primary supply station, 3 CNG satellite filling stations, and 4 gas unloading stations by 2010.</p> <p>Construction of 2 wastewater treatment plants, a 53 km sewer transmission pipeline and 5 pumping stations by</p>	<p>Quarterly progress reports, PAMs, MTR, PPMS, and PCR</p> <p>Annual financial, operation and performance reports of project companies</p> <p>Social, resettlement and poverty monitoring report by implementation consultants</p> <p>Implementation and impact monitoring by the GIMAR and ADB</p> <p>Compliance with ADB covenants</p> <p>Ex-post monitoring by the GIMAR</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Adequately staffed PMO and PIOs. • Sufficient counterpart funds • Project implemented according to schedule • Effective resettlement planning and monitoring • In-time procurement and quality equipment • Complementary social services to the poor are in place. • MOC, NDRC and city price bureaus continue to implement urban gas and heating, and water sector reforms. • Local government allocates sufficient budget for subsidizing heating tariff for the poor. • Cost savings from efficiency improvement are passed on to consumers.

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
4. Institutional strengthening and capacity building	<p>2009</p> <p>An implementation plan developed by 2006, and implemented by 2009, and 95% of billing collection of PIAs by 2011</p> <p>PIAs are profitable and a current ratio of at least 1:1, debt-equity ratio of not more than 70:30, and 1.4 times debt service ratio starting 2011</p>		<p>Risks</p> <ul style="list-style-type: none"> • Loan covenants are not met during project implementation. • The recommendations made by the consultants are not implemented. • Insufficient training for appropriate PMO staff
<p>Activities with Milestones</p> <p>Output/Component A</p> <p>1.1. Civil works: Contracts awarded by August 2006 and completed by December 2009.</p> <p>1.2. Materials and equipment: Procured by July 2008.</p> <p>1.3. Land acquisition: Completed by December 2008.</p> <p>1.4. Implementation consulting services: Consultants recruited by August 2006 and their works are completed in June 2011.</p> <p>1.5. Project impact monitoring: Baseline data collected by February 2007 and monitoring and reporting starting in June 2007.</p> <p>Output/Component B</p> <p>1.1. Civil works: Contracts awarded by September 2006 and completed by December 2010.</p> <p>1.2. Materials and equipment: Procured by July 2009.</p> <p>1.3. Land acquisition and resettlement: Resettlement completed by December 2008.</p> <p>1.4. Implementation consulting services: Consultants recruited by August 2006 and their works are completed in June 2011.</p> <p>1.5. Project impact monitoring: Baseline data collected by February 2007 and monitoring and reporting starting in June 2007.</p> <p>Output/Component C</p> <p>1.1. Civil works: Contracts awarded by September 2006 and completed by December 2009.</p> <p>1.2. Materials and equipment: Procured by July 2008.</p> <p>1.3. Land acquisition and resettlement: Resettlement completed by December 2008.</p> <p>1.4. Implementation consulting services: Consultants recruited by August 2006 and their works are completed in June 2011.</p> <p>1.5. Project impact monitoring: Baseline data collected by February 2007 and monitoring and reporting starting in June 2007.</p> <p>Output/Component C</p> <p>1.1. Institutional strengthening: Consultants are recruited by December 2006 and their works are completed in December 2007.</p> <p>1.2. Tariff reforms: an action plan is prepared by December 2007 and implemented before project completion.</p> <p>1.3. Trainings: training programs completed by December 2010.</p> <p>1.4. Project impact monitoring: Baseline data collected by February 2007 and monitoring and reporting starting in June 2007.</p>			<p>Inputs</p> <p>ADB: \$120.0 million</p> <ul style="list-style-type: none"> • Civil works: \$7.5 million • Equipment: \$99.8 million • Consultation: \$2.2 million • Contingency: \$10.3 million <p>Local Banks and PIAs: \$220.4 million</p> <ul style="list-style-type: none"> • Civil works: \$97.6 million • Equipment: \$51.3 million • Contingency: \$27.1 million

ADB = Asian Development Bank, BOD=biological oxygen demand, CNG=compressed natural gas, CO₂=carbon dioxide, COD=chemical oxygen demand, GIMAR= Government of Inner Mongolia Autonomous Region, IA = implementing agency, IMAR= Inner Mongolia Autonomous Region, km = kilometer, LPG=liquidize Petroleum gas, m³ =cubic meter, MW = megawatts (= 1,000,000 watts), MOC = Ministry of Construction, MTR = midterm review, NDRC = National Development and Reform Commission, NO_x = nitrogen oxides, PAM = project administration mission, PCR = project completion report, PIA = project implementing agency, PIOs = the project implementing office, PMO = the project management office, PPMS = Project Performance Management System, PRC = People's Republic of China, SO₂ = sulphur dioxide, SS = suspended solids, t = tons, t/y = tons per year, TN = total nitrogen, TP = total phosphorus, TSP = total suspended particulates.

I. PROJECT DESCRIPTION

A. Project Area and Location

1. Inner Mongolia Autonomous Region (IMAR) has a population of about 24 million, with 26% living in urban areas. Cities in IMAR experience heating supply shortages during the 5-month winter season; this adversely affects quality of life and health of urban residents, particularly the poor. The adverse effects of urban poverty are often compounded by environmental pollution from energy and heating sources at the household level. Recent rapid economic growth has led to the worsening trend of environmental pollution and ecosystem degradation, particularly air and water quality in all major cities (including the eight project cities and counties). Water shortage has become a major constraint of IMAR's economic development. Recent improved economic performance will not be sustainable if the government of IMAR (GIMAR) does not immediately react to the worsening trend of air and water pollution.

2. As one of the 12 western provinces, IMAR has benefited less than the east coast from economic growth and reforms. Incomes are lower; poverty is more widespread; health and education indicators are lower; land degradation problems are serious; and physical infrastructure has weaknesses, including roads, railways, power, and telecommunications. Of the province's 101 counties, 31 are national poverty counties and 29 are provincial poverty counties. The fiscal revenue of the poverty counties cannot cover salaries of the government officials, teachers, and health personnel. Investments in basic education and public health are inadequate. About 2.5 million people, or 18% of the rural population, had incomes below the international poverty line of \$1/day.

B. Impact and Outcome

3. The Project will improve the environment by reducing atmospheric and water pollution in IMAR. This will be achieved by establishing an efficient, safe, and reliable gas and heating supply to facilitate the closure of small coal-fired boilers, and wastewater treatment facilities to protect water resources, which will conserve energy and water resources in the project cities.

C. Outputs

4. The Project has four components: urban central heating supply; natural gas transmission and distribution; city wastewater treatment; and institutional reform and corporate governance improvement. The feasibility studies and engineering design for the subcomponents were prepared by several design and engineering institutes in the PRC with experience and qualifications acceptable to ADB.

5. **Component A: Urban Central Heating Supply.** Component A comprises eight subcomponents and will involve the installation of 21 large efficient coal-fired boilers, 190 heat exchange stations, and 126 kilometers (km) of heat supply pipelines to facilitate closure of 396 small inefficient coal-fired boilers. The subcomponents are listed in Table 1.

Table 1: Subcomponents under Component A

City		New Boilers		Heat Exchange Stations	Heat Supply Pipelines	Old Boilers Closure
		No.	(MW)	No.	km	No.
A.1	Dengkou	3 ^a	29x3	11	6.7	39
A.2	Hangjinhou	3	58x3	36	10.6	11
A.3	Linhe			31	36.2	58
A.4	Wuhai	4	64x2+29x2	69	42.2	112
A.5	Wulatehou	2	29x2	14	11.4	35
A.6	Wulateqian	3	29x3	9	9.8	64
A.7	Wulatezhong	2	29x2	8	3.0	20
A.8	Wuyuan	4 ^a	29x4	12	9.8	57
Total		21	766	190	129.7	396

No. = number; MW = megawatt; km = kilometer.

^a Circulating fluidized bed (CFB)-type boilers.

Source: Project Management Office.

6. **Component B: Natural Gas Transmission and Distribution.** Component B comprises two subcomponents: (i) the Changqing–Wuhai–Linhe natural gas transmission pipeline subcomponent will construct a 406 km pipeline across the region of Erdos, Wuhai, and Bayannur; and (ii) the natural gas distribution subcomponent will construct (a) natural gas distribution networks in eight cities (same as component A), and (b) one master compressed natural gas station in Linhe to supply compressed natural gas.

7. **Component C: City Wastewater Treatment.** Component C has two subcomponents: (i) the Wulatehou wastewater treatment plant and sewage network subcomponent will construct (a) a 6,000 t/day wastewater treatment plant, and (b) 13.2 km sewage piping network; and (ii) the Wulateqian wastewater treatment plant and sewage network subcomponent will construct (a) a 80,000 t/day wastewater plant to treat the city's wastewater and industrial wastewater, and (b) a 34.8 km sewage piping network and four pumping stations.

8. **Component D: Institutional Reform and Corporate Governance Improvement.** Institutional capacity and corporate governance aspects were assessed by the project preparatory TA consultants for each project implementing agency (PIA). Based on the assessment, the TA consultants developed an institutional reform action plan for each PIA, and a financial reform action plan to address cost reduction, bill collection, and financial capacity of the PIAs. Both institutional and financial action plans were discussed with and supported by the PIAs. To strengthen the PIAs' institutional and financial management capacity, component D comprises (i) institutional strengthening and training for implementing the institutional and financial reform action plans, (ii) assistance to the PIAs to implement the tariff and regulatory reforms, and (iii) development of options for private sector participation. The institutional reform will require separation of government functions from commercial management of the PIAs, and transforming the noncorporate PIAs into new corporate structures according to the PRC's Company Law. The financial reforms will assist all the PIAs to build capacity in cost reduction, bill collection, efficient accounting, and commercial management. The consultants under component D will also help the PIAs prepare tariff reform action plans in accordance with

recommendations made by ADB's TA¹ for Pro-Poor Urban Heating Tariff Reforms.² The TA formulated national pro-poor heating tariff guidelines and established the principles of an effective heating tariff collection mechanism. The consultants under component D will also study options for private sector participation in the PIAs. The options developed and implemented will demonstrate how public utilities can be privatized without lowering the quality of utility supply. The Project will provide additional opportunities for ADB to address policy concerns and help create a supportive environment for private sector participation.

D. Special Features

9. **Energy Efficiency Improvement and Energy Conservation.** Energy conservation and efficient use of energy are of high priority in the 11th Five-Year Plan (2006–2010). ADB is actively supporting the PRC in both these areas. The Project will build large and efficient (above 80% combustion efficiency) heat boilers equipped with modern pollution control devices to facilitate the closure of 396 small coal-fired boilers. These existing small coal-fired boilers have low thermal efficiency in the range of 55% to 65%, and do not have adequate pollution control devices. In addition, the natural gas pipelines and urban gas distribution networks under the Project will provide cleaner fuel that has 25% higher efficiency than coal. Overall, the Project's gas and central heating supply components are expected to improve energy efficiency by 22%. The improvement will annually conserve energy in standard coal of 340,000 t from the central heating supply and 200,000 t from the gas supply.

10. **Urban Heating Tariff Reforms.** Heating tariff reforms are required to improve and sustain urban heating supply in IMAR. The current average heating tariff of about CNY15/m² for the heating season in IMAR is still lower than that of other provinces, but reflects supply cost in the project cities.³ Tariff reforms need to focus on the tariff structure and bill collection. At present, all of the urban heating tariffs are based on a simple fixed rate per square meter (e.g., CNY/m²) of the living area or floor area of buildings. Problems with the current heating tariff structure, payment, and collection systems include (i) the tariff structure does not encourage efficient use of heat; (ii) the enterprise-based tariff payment system is not market-oriented and causes difficulty in tariff collection and (iii) transparent criteria and methodologies for tariff setting and adjustment are lacking. In addition, the layout of the piping system in existing buildings makes disconnecting supply to delinquent customers difficult for the heating company. All new buildings in IMAR are required to follow new building codes and use energy-efficient building materials. Traditionally in IMAR, heating bills were paid by employers for their employees. In the mid-1990s, many SOEs became financially unviable and could not pay the heating bills for their employees. This caused tariff collection to drop to 50%, creating severe financial difficulties for the heating companies. Tariff collection improved to 70% in 2004 in the project cities and a further improvement to 95% is expected with the Project. To address these issues, GIMAR will cause the PIAs to implement at the city level key heating tariff. The consultants under component D will help develop specific reform action plans for (i) installing radiator control valves in apartment units to encourage heat conservation, (ii) implementing a two-part heating tariff so that the variable charge will be based on actual heat consumption,

¹ ADB. 2001. *Technical Assistance to the People's Republic of China for Pro-Poor Urban Heating Tariff Reforms*. Manila.

² The Ministry of Construction was the executing agency for the TA. The TA's objective was to help the Government reform the urban heating sector and promote sustainable urban heating supply in the PRC by (i) formulating pro-poor national heating tariff guidelines, and (ii) establishing an effective heating tariff collection mechanism. The TA was completed in 2005.

³ The heating tariff of CNY15/m² in IMAR is lower than about CNY19.5/m² in Xinjiang, CNY20/m² in Heilongjiang, and CNY24/m² in Beijing.

(iii) installing heat-measuring devices in apartment units to support consumption-based billing systems, and (iv) training heating company staff on implementation of reform measures. After the reforms, consumers will have the ability to regulate the amount of heat that they consume, which is essential if tariff-based incentives for heat conservation, insulation installation, and heat loss reduction are to work.

11. **Private Sector Participation.** With the combined efforts of GIMAR and the ADB project team, the Project will establish private sector participation in central heating and wastewater treatment subsectors in IMAR. Bayannur city was selected as the pilot city to involve the private sector in public utilities. The Project will directly support five privately owned companies in central heating supply and wastewater treatment to upgrade and expand heating supply services and provide wastewater treatment facilities. Through policy dialogue and other reform measures, an enabling environment for private sector participation will be created by reducing institutional uncertainties, improving fee collection, and promoting transparent tariff setting. The five private heating companies involved expect to benefit from the Project in the areas of technology upgrade, institutional strengthening, and heating tariff reforms. For the local governments, the efficiency gains of the heating supply companies with the Project will be used to reduce the financial burden in subsidizing the poor and proper treatment of wastewater that was discharged untreated into the Yellow River. Further, a better management heating subsector will reduce the efforts of local governments to ensure that their urban residents have sufficient heating. The Project will demonstrate that private sector participation in public utilities can be beneficial to all parties, and will catalyze private sector involvement in the heating and water subsectors in IMAR. The consultants under component D will identify options for future private sector participation in the rest of the project implementing companies.

12. **Benefits for the Poor.** In the project cities, heating bills currently account for 17.5% to 30.7% of the average monthly incomes of poor households. Although improving facilities and supply efficiency will preclude tariff increases, measures need to be taken to make gas and heating more affordable to the poor. GIMAR agreed to include two specific programs. The first will require the PIAs to provide gas and heating connection and tariff discounts to the poor, based on the benefits of the cost savings arising from the 22% efficiency improvement and increasing bill collection to 95%. Each PIA has committed to share the benefits and extend the discount to the poor after satisfying the loan conditions. They estimate that 52,337 poor households will benefit: 22,971 from the discount on gas and heating supply connection fees, and 29,366 from the discount on gas and heating bills. This will result in an annual benefit of CNY10.2 million in connection fees, and CNY26.8 million in discounts on gas and heating bills; representing about 1.8% of the total revenue of the gas and heating companies after the Project is completed. The second program requires the city governments to establish a heating assistance fund for the poor. It will be included in the annual city budget and the funding level will not be dependent on budget availability. The city government subsidies through the heating assistance fund will be designed so that heating expenses do not exceed 5% of a poor household's monthly expenditure.

II. COST ESTIMATES AND FINANCING PLAN

A. Detailed Cost Estimates

13. The project investment cost is estimated at \$330.4 million equivalent, including physical and price contingencies, and financial charges during development (**Table 2 and Appendix 1**). The foreign exchange costs are \$135.3 million, or about 41%.

Table 2: Project Investment Cost
(\$ million)

Item	Total^a
I. Base Cost	
A. Urban Central Heating Component	145.48
A1. Dengkou Central Heating Supply	9.71
A2. Hangjinhou Central Heating Supply	24.71
A3. Linhe Central Heating Supply	21.49
A4. Wuhai City Central Heating Supply	47.07
A5. Wulatehou Central Heating Supply	9.79
A6. Wulateqian Central Heating Supply	10.89
A7. Wulatezhong Central Heating Supply	7.06
A8. Wuyuan Central Heating Supply	14.75
B. Natural Gas Transmission and Distribution	88.80
B1. Chang-Wu-Lin Gas Transmission	49.36
B2. Gas Distribution and CNG Station	39.44
C. City Wastewater Treatment Component	23.56
C1. Wulatehou Wastewater Treatment	5.30
C2. Wulateqian Wastewater Treatment	18.26
D. Institutional Reform and Corporate Governance Improvement	0.60
Subtotal (I)	258.41
II. Contingencies^b	
Physical	25.84
Price	8.53
III Finance Charges during Implementation^c	37.61
Total	330.40

CNG = compressed natural gas.

^a Based on an exchange rate of \$1 = CNY8.11.

^b Physical contingencies are assumed to be 10% of base cost, while price contingencies were computed to be the sum of base cost plus physical contingency multiplied by the inflation rate.

^c Interest during construction was computed based on the estimated annual loan releases multiplied by the 5-year LIBOR rate as of 15 November 2005, plus provision for ADB's spread. A commitment fee of 0.75% of the unreleased portion of the ADB loan was included.

Note: Totals and subtotals may not add up due to rounding.

Source: Estimates of project implementing agencies and Asian Development Bank.

B. Financing Plan

14. The Government has requested a loan of \$120.0 million (36% of the total project cost) from ADB's ordinary capital resources to help finance the Project. The loan will have a 25-year term including a grace period of 5 years, an interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.75% per annum, and such other terms and conditions as set forth in the draft loan and project agreements. The Government has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility on the basis of these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on

any communication or advice from ADB. The balance of the project cost will be financed by equity of \$175.44 million (53.1%) and domestic loans of \$34.97 million (10.6%). The loan from local banks will have a repayment period of 5 to 10 years, including a grace period of 1 to 2 years, and an interest rate of 6.5%. The Borrower will be the PRC, which will make the proceeds of the loan available to GIMAR on the same terms and conditions as those of the ADB loan. GIMAR will onlend the proceeds of the loan in amounts relating to the subcomponents to the respective PIAs, which will carry out these subcomponents on the same terms and conditions as the loan. The PIAs will assume the foreign exchange and interest variation risks of the loan. Table 3 provides the financing plan for the Project.

Table 3: Financing Plan
(\$ million)

Source	Equity	ADB Loan	%
Project Implementation Agency	175.44		53.1
Inner Mongolia Western Natural Gas Limited	55.77	45.45	
Inner Mongolia Saiwaixing Huazhang Paper Limited	18.84	13.96	
Wulatehouqi Water Company	3.52	2.63	
Bayannur Fuyuan Shiye Group Limited	30.72	23.59	
Wulatehouqi Huibao Thermal Limited	6.45	5.14	
Wuhai Thermal Company	41.51	13.02	
Inner Mongolia Haosheng Thermal Limited	14.88	12.57	
Wulatezhongqi Dagong Thermal Limited	3.74	3.64	
Loans			
Asian Development Bank		120.00	36.3
Local Banks	34.97		10.6
Total	210.40	120.00	100.00

^a Based on an exchange rate of \$1 = CNY8.11.

Note: Totals and subtotals may not add up due to rounding.

Source: Estimates of project implementing agencies and Asian Development Bank.

C. Allocation of Loan Proceeds

15. The allocation of loan proceeds and the basis for withdrawal from the loan account are in Table 4. This can also be found in the Attachment to Schedule 3 of the Loan Agreement.

Table 4: Allocation of Loan Proceeds

Category			Percentage of ADB Financing	
No.	Item	Amount Allocated (\$)	%	Basis for Withdrawal from the Loan Account
1	Civil Works	7,450,000	46	percent of total expenditure
2	Equipment and Materials	99,810,000	100	percent of total expenditure
3	Institutional Strengthening	700,000	100	percent of total expenditure
4	Consulting Services and Project Management Support	1,500,000	100	Percent of total expenditure
5	Interest and Commitment Charge	10,540,000	100	Percent of total expenditure
	Total	120,000,000		

III. IMPLEMENTATION ARRANGEMENTS

16. GIMAR will be the Executing Agency for the Project. The subcomponents will be implemented by various PIAs. The Organization chart of Project Executing and Implementing Agencies is in **Appendix 2**. A project management office (PMO) will be responsible for managing, coordinating, and supervising implementation of all project subcomponents. Each PIA will establish a project implementation office to be directly responsible for design, construction, and operation of subprojects. Based on an assessment of GIMAR's management expertise and its extensive experience in World Bank and other bilateral projects, GIMAR shows the capability to implement this Project and demonstrates strong commitment for the Project.

IV. IMPLEMENTATION SCHEDULE

17. Construction of the project facilities is expected to take place over 4.5 years, and project components to be completed by 30 June 2011. Site preparation for some heating facilities has been completed; the routing of the transmission and distribution gas pipelines and the location of the related facilities has been finalized. The project implementation schedule is in **Appendix 3**.

V. CONSULTANT RECRUITMENT

18. International and national consultants financed under the loan will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* using the quality and cost-based selection method with simplified technical proposal, and other arrangements satisfactory to ADB for the selection and engagement of national consultants. For project implementation supervision, international and national consultants will be engaged to assist GIMAR and the PIAs with (i) project design and engineering, (ii) procurement, (iii) construction supervision related to equipment and materials procured under ADB financing, (iv) project management, (v) impact monitoring and assistance to prepare all required reports to ADB and GIMAR.

19. About 12 person-months of international and 76 person-months of national consulting services will be required for project implementation supervision.⁴ International and national consultants will be recruited for the institutional reform and the corporate governance improvement subcomponent, which includes institutional and tariff reforms, and corporate governance improvement and related training. About 9 person-months of international consulting services and 53 person-months of national consulting services are expected to be required. Some national consultants will be engaged by the PMO and the project implementation offices for site supervision and various tasks relating to project implementation. They will have qualifications and experience acceptable to ADB. GIMAR was informed of the selection procedures of the quality and cost-based selection method. Outline terms of reference for consultants are in **Appendix 4**.

VI. PROCUREMENT

20. All goods and works under the Project to be wholly or partly financed by ADB will be procured in accordance with ADB's *Procurement Guidelines*. Based on the implementation schedule, a procurement plan was prepared. Civil works contracts costing \$10 million or more and each supply contract costing \$1 million or more financed by ADB will be procured through international competitive bidding procedures using ADB's standard bidding documents. Other supply contract packages costing less than \$1 million will be procured either using national competitive bidding, or in exceptional circumstances with the prior approval of ADB, limited international bidding procedures. Supply contract packages costing less than \$100,000 will be procured using shopping procedures. Civil works contracts costing less than \$10 million will be procured through national competitive bidding. All locally financed items will be procured using procedures acceptable to ADB. A list of procurement packages and their modes of procurement are in **Appendix 5**. GIMAR will set up an imprest account after loan effectiveness in accordance with ADB's *Loan Disbursement Handbook* (January 2001). Disbursements from the imprest account will be supported by an appropriate withdrawal application and related documentation. Such documentation will demonstrate, among other things, that the goods and/or services are (i) produced in and procured from ADB members, and (ii) eligible for ADB financing.

VII. DISBURSEMENT PROCEDURES

A. Disbursement Arrangements

21. The loan proceeds will be withdrawn in accordance with ADB's standard disbursement procedures. To facilitate disbursement of numerous small expenditures, GIMAR will set up an imprest account after loan effectiveness in accordance with ADB's *Loan Disbursement Handbook* (January 2001). Disbursements from the imprest account will be supported by appropriate withdrawal applications and related documentation. Such documentation will demonstrate, among other things, that the goods and/or services are produced in and procured from ADB members, and eligible for ADB financing. The initial amount to be deposited into the imprest account will not exceed 6 months of estimated expenditures, or 10% of the loan amount, whichever is lower. The statement of expenditures procedure may be used for reimbursement of eligible expenditures. Individual payments to be reimbursed or liquidated under the procedure will not exceed \$200,000.

⁴ About 20 person-months of national consulting services under the implementation supervision will be provided to develop benchmarks and indicators for the economic, social, and environmental impact of the Project.

B. Advance Procurement Action and Retroactive Financing

22. In January 2006, the PMO started recruitment of the implementation consultants and procurement agents to prepare bid documents. In view of the advanced stage of project preparation, ADB management approved GIMAR's request for advance procurement action, which includes recruitment of consultants and procurement of goods and civil works, and the request for retroactive financing of eligible expenditures up to \$12.0 million (equivalent to 10% of the ADB loan) incurred from 1 June 2006, or a maximum of 12 months prior to the loan signing. The Government was advised that ADB approval of advance procurement action and retroactive financing does not in any way commit ADB to approve the proposed loan. Contracts proposed for retroactive financing will be undertaken in accordance with ADB's *Procurement Guidelines* and *Guidelines on the Use of Consultants*.⁵

VIII. PROJECT MONITORING AND EVALUATION

23. Two years after loan effectiveness, ADB, GIMAR, and the PIAs will carry out a midterm review of the Project, covering all institutional, administrative, organizational, technical, environmental, social, poverty reduction, resettlement, economic, financial, and other relevant aspects that may have an impact on the performance of the Project and its continuing viability. The review will examine progress in sector reforms, and evaluate development and poverty impact, and compliance with assurances in the loan agreement. The review shall also undertake a comprehensive review of potential Loan savings, identify areas for reallocation of Loan proceeds, and change disbursement percentages, as appropriate.

24. A project performance management system (PPMS) was developed by the project preparatory TA consultants and agreed to by GIMAR. The PPMS includes a set of measurable indicators based on the project design, impacts, and risks. The macroeconomic and sector performance, institutional capacity, and reforms were taken into account in designing the monitoring indicators. The indicators cover environmental impacts, and social and poverty impacts. The major indicators are presented in the design and monitoring framework. In addition, a feedback and reporting mechanism for effective project implementation and initial startup activities, including a baseline survey based on a random household sample to be monitored with the follow-up surveys, was included in the PPMS. Each PIA will establish an environmental and resettlement management unit to coordinate environmental and resettlement management issues associated with the contract packages. The units will oversee environmental and resettlement management and monitoring during construction and operation, including environmental and resettlement supervision of contractors. GIMAR will engage an independent domestic agency to monitor implementation of the resettlement plan and prepare evaluation reports. The implementation supervision consultants will include an impact monitoring unit (an independent domestic agency) with 20 person-months of national consulting services to develop benchmarks and indicators for the economic, social, and environmental impact of the Project. During implementation, the implementation consultants and the impact monitoring unit will help GIMAR to monitor project impacts, and GIMAR and the PIAs will keep ADB informed of implementation progress with the environmental management plan (EMP) and resettlement plan through quarterly progress reports. Annual reports on achievement of resettlement, environmental, and social objectives will be submitted to ADB during project implementation and on completion. A longer term monitoring plan after project completion, including an effective monitoring and evaluation system, will be developed by the impact monitoring unit and implemented by GIMAR. The monitoring and evaluation system will include specific and

⁵ The advance action was published in *ADB Business Opportunities* on 24 March 2006.

measurable targets, and identify key risks and institutional arrangements for effective monitoring. The implementation consultants will also provide the necessary training on monitoring.

IX. REPORTING REQUIREMENTS

25. GIMAR and the PIAs, through the PMO, will also submit to ADB reports and information concerning the use of the loan proceeds, project implementation, and the performance of each PIA. The reports will include (i) quarterly progress reports on project implementation, and (ii) a project completion report not later than 3 months after completion of the project facilities. The suggested format and content of EA progress reports is provided in **Appendix 6**.

X. AUDITING REQUIREMENTS

26. The accounting, auditing, and reporting systems and procedures for the Project will be in accordance with the *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB*. Each PIA will maintain separate accounts of their operations and of the Project, and submit through the PMO to ADB audited project accounts and agency financial statements in English not later than 6 months after the end of the financial year. The Government, GIMAR, and the PIAs have been informed about ADB's policy on submission of audited financial statements and possible penalties for delays in submission. The submitted audited project accounts and agency financial statements should be of acceptable quality and be prepared in accordance with internationally accepted accounting standards. Financial statements with adverse opinions or disclaimers from auditors are considered unacceptable and cannot be submitted for this purpose. The PIAs will engage auditing firms with experience and qualifications acceptable to ADB to carry out the annual audits. Sample audit letter is in **Appendix 7**.

XI. MAJOR LOAN COVENANTS

27. The major loan covenants which have been agreed among the Government, the Executing Agency and Implementing Agencies and ADB, to be complied with are in **Appendix 8**.

XII. KEY PERSONS INVOLVED IN THE PROJECT

28. The names, positions, and contact details of key personnel from the borrowers, EA, implementing agency, cofinanciers, and ADB are included in **Appendix 9**.

XIII. ANTICORRUPTION

29. ADB's anticorruption policy⁶ was explained to and discussed with the PRC Government and GIMAR. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. To support these efforts, relevant provisions of ADB's anticorruption policy are included in the loan regulations and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project will include provisions specifying the right of ADB to audit and examine the records and accounts of GIMAR and all contractors, suppliers, consultants, and other service providers as they relate to the Project. The relevant sections of ADB's anticorruption policy will be included in all documents and contracts during bidding and

⁶ ADB. 1998. *Anticorruption*. Manila.

implementation of the Project. Items financed by the PIAs with local currency funds will be procured following bidding procedures acceptable to ADB. For the Project, GIMAR will take the following anticorruption actions: (i) involve full-time officials from the Finance Bureau of IMAR in bidding, construction, and operations; and (ii) carry out periodic inspections of the contractors' activities related to fund withdrawals and settlements. Anticorruption Policy can be accessed on ADB website at <http://wbptdp1.asiandevbank.org/toolkit2005/docs/anticorruption.pdf>.

OUTLINE TERMS OF REFERENCE

Terms of Reference for Project Implementation Supervision

I. INTRODUCTION

1. To ensure the project implementation is well organized and properly monitored, international and domestic consultants will be engaged by the Government of Inner Mongolia Autonomous Region (GIMAR), to perform the consulting services for the project implementation and project impact monitoring. GIMAR has established a Project Management Office (PMO) which coordinates between the project implementation agencies.

II. OUTLINE TERMS OF REFERENCE

A. Objectives and Scope

2. The main objectives of the implementing consultancy are to assist the EA and PIAs on project management and project impact monitoring, to ensure engineering design, bidding and construction activities are well organized, and to provide guidance and assistance to the EA and PIAs following ADB's standard procedures. The scope of work mainly includes (i) coordination and supervision of construction activities to ensure that the work is carried out in accordance with the contract documents, (ii) monitoring of project impacts, (iii) ensuring implementation of social and environmental safeguard measures, and (iii) preparation of all required reports. In particular, the consultants, will: (i) assist in establishing environmental monitoring offices in the PIAs and a compliance monitoring system to ensure that all PRC environmental standards and ADB guidelines are adhered to, (ii) assist in establishing resettlement offices in the PIAs and a compliance monitoring system to ensure that all PRC resettlement standards and ADB guidelines are adhered to, (iii) develop and implement a system to monitor socioeconomic and environmental impacts of the project, including poverty reduction, and social safeguard measures in the project affected area, and provide training to the PIAs to collect information and to monitor performance, (iv) assist GIMAR in developing and implementing its project management system in line with the current international practices and to meet ADB loan requirements including staff trainings to computerize the current manual system of accounting and trainings on hardware, software and accounting processes, and (v) assist GIMAR in developing and initiating appropriate project management practices and procedures for planning, monitoring and control of the Project. In needed, the international and domestic consultants will assist in tender design and preparation of specification for components of the Project, assist in the tendering company in preparation of the tender documents, pre-qualification of bidders, bidding activities, and claims, and assist GIMAR in contract negotiations.

3. The appropriate project management practices will include: (i) keeping records of all correspondence between the PMO, PIAs, contractors, the consultants, and the financial institutions; (ii) development and implementation of applicable procedures to ensure the adequate control of the storage and acceptance of the materials and equipment; (iii) periodic updating of the overall project disbursement schedule and physical target accomplishments; (iv) preparation of quarterly progress reports for the financial institutions; (v) project performance monitoring and evaluation during the implementation period, and (vi) preparation of the project completion report.

B. Terms of Reference (TOR)

4. The services will include, but will not necessarily be limited to, the tasks listed below:

Design and Bidding Activities

- (i) Review the preliminary design report, cost estimate and project implementation schedule to become familiar with the basic requirements of the project and to determine any anomalies prior to award of the construction contracts.
- (ii) Review and/or assist in the tender design, technical specifications, tender drawings and all other parts of the bidding documents to ensure that the documents are technically and contractually in accordance with ADB requirements for ICB, LCB or IS, and appropriate for international tendering, as required.
- (iii) Drawing on international experience, assist the tendering company in preparation of the advertisement for pre-qualification of bidders, bidding documents, etc.
- (iv) Assist GIMAR in contract negotiations for contracts controlled under ADB procurement procedures.

Construction Supervision

- (i) Visit the project site at regular intervals during project implementation; monitor the progress and report to GIMAR on critical activities, providing details of the progress, and recommendations.
- (ii) Review equipment manufacturers' major drawings and calculations for compliance with contract specifications.
- (iii) Review procurement and delivery programs for each supply contract financed by ADB to ensure compatibility and timely coordination with civil works and other contracts.
- (iv) Assist in developing and implementing applicable procedures for control of the manufacturing, factory tests, and acceptance of the materials and equipment.
- (v) Assist in providing GIMAR with necessary interpretations of technical and commercial issues that may arise from the contracts.
- (vi) Assist in the preparation and periodical updating of the Project disbursement schedule and financial statements.
- (vii) Assist in coordination between various manufacturers and contractors.
- (viii) Assist in supervising manufacturing, testing, and commissioning of ADB-financed equipment
- (ix) Assist in the assessment of contract variations and their verification.
- (x) Assist in claims avoidance practices, particularly for international contractors.
- (xi) Assist in handling any claims.

Environmental Supervision and Monitoring

- (i) Establish an environmental monitoring office (unit) and compliance monitoring system to ensure that all PRC environmental standards and ADB guidelines are met.
- (ii) Identify human resource requirements and assist GIMAR management in selecting appropriately qualified personnel from existing staff or via external recruiting.
- (iii) Direct the environmental unit in the implementation of a computerized environmental compliance monitoring system using appropriate off-the self software packages (e.g., Microsoft Office). This system should include spreadsheets, word processing, and digital photography capabilities to facilitate preparation of required monitoring reports. The system should be set up to manage information and create reports in both English and Chinese.

- (iv) Prepare standard operating procedures and guidance documents based on all applicable, the PRC environmental standards (e.g. dust, noise, water quality), as well as ADB requirements and guidelines.
- (v) Provide training and supervision for compliance monitoring activities, including: construction site inspections; sampling; data review, analysis, and compilation; and report preparation.
- (vi) Direct the preparation of periodic monitoring reports and a project completion report. The environmental monitoring reports will include environmental mitigation measures undertaken, monitoring activities undertaken, physical monitoring data collected, analysis of monitoring results against relevant standards, additional mitigation measures required (if any), environmental training conducted, and environmental regulatory violations. The initial environmental monitoring report will also include baseline data and the Project Completion Environmental Monitoring Report will be submitted after completion of construction.

Socio-economic Supervision and Monitoring

- (i) Develop a system to monitor socioeconomic impacts of the project. Priority should be given to poverty reduction benefits and social safeguards in accordance with ADB policies and guidelines.
- (ii) Conduct annual monitoring of socioeconomic impacts with assistance from the domestic consultants.
- (iii) Review the progress of the resettlement of affected households.
- (iv) Provide training in socioeconomic monitoring for the implementing agencies.
- (v) Prepare annual Socioeconomic Monitoring and Evaluation Reports during implementation and a Project Completion Report following construction completion.
- (vi) In accordance with Short Resettlement Plan, assess the post-project implementation impact for (i) re-employment plan for boiler workers due to the closure of small coal fire boilers, (ii) benefits to poor households by gas and central heating supply connection and tariff discounts, (iii) impacts on changing the household's heating and cooking sources from coal fire stove to central heating and gas supply, and (iv) impacts on affected people by the land acquisition.

Financial Information Systems Management

5. Assist GIMAR to develop its financial management systems for management accounting; including project budgeting and costing, corporate and departmental budgeting, and financial analysis and modeling. The focus should be on corporate treasury, fixed assets accounting (particularly during the construction period) and statutory reporting to meet the requirements of ADB. The consultants shall have expertise in computerized accounting principles to support GIMAR staff member to make an informed decision regarding the procurement and implementation of a specific financial management information system. With the commencement of the project, the priority area for the information system will be statutory reporting, project budgeting and costing, and fixed assets accounting.

Project Management

6. Assist GIMAR in setting up the project management practices and procedures for planning, monitoring and control of the Project. Practices and procedures should include

corporate governance, strategy and business plans for the company and for all departments, budgets, organization, allocation of responsibilities and authorities (for approval of variation orders and amounts, claims management, O&M, etc), job descriptions; information systems, including dynamic project information systems (tied into the consultants' systems); management reports including management action reports.

b. National Consultants

Design and Bidding Activities

- (i) Review the feasibility study, preliminary design report, cost estimate, and project implementation schedule to become familiar with the basic requirements of the project and to identify any anomalies prior to the award of construction contracts.
- (ii) Provide assistance to the tendering company regarding ADB-financed contracts for: (a) the advertisement and prequalification of bidders, (b) the bidding documents and site visits, bidders meetings, answers to bidders questions, amendments and clarifications, etc., during the bid period, (iii) bid evaluations and prepare bid evaluation reports, and (iv) claims.
- (iii) On the non-ADB-financed contracts the domestic consultants shall carry out the above tasks.
- (iv) Assist GIMAR in contract negotiations, if necessary.

Construction Supervision

- (i) Consultants will review the design for construction and preparation of construction drawings; and technical specifications, bar lists, and other documents necessary.
- (ii) Supervise the construction, equipment installation and the commissioning of the works.
- (iii) Establish a computerized schedule, primavera or equal, for all Project activities. Periodical update overall Project schedule, as required by GIMAR.
- (iv) Survey and establish site for hand over to contractors.
- (v) Establish a computerized Project materials and equipment monitoring program, using appropriate off-the-shelf software packages. Maintain an inventory of the contractor's plant, materials and equipment, and equipment for the permanent works; ensure that these items are sufficient and delivery on time to maintain the project schedule.
- (vi) Review the contractor's drawings and calculations.
- (vii) Carry out factory inspection and witness tests of materials and equipment being supplied under the project. Monitor and expedite delivery of materials and equipment.
- (viii) Establish a laboratory for on site testing of materials.
- (ix) Prepare, monitor and report on the progress, constraints of construction.
- (x) Establish contract disbursement schedules and cost control systems for each contract and for the Project, monitor and report monthly.
- (xi) Provide GIMAR with necessary interpretations of technical and commercial issues that may arise from the contracts, in order to be aware of pending critical issues.
- (xii) Coordinate activities between various manufacturers and contractors.
- (xiii) Monitor the progress of each contract, and prepare monthly progress reports to GIMAR.
- (xiv) Review equipment suppliers/manufacturers/ drawings and calculations.

- (xv) Develop the procedures and provide assistance required for commissioning of the Project components.
- (xvi) Review the maintenance and operation manuals prepared by the manufacturers and ensure they are adequate for the intended purpose.
- (xvii) Review all contractors' statements for accuracy.
- (xviii) Review and provide technical assessment of all claims.

Environmental Supervision and Monitoring

- (i) Liaise with GIMAR, and the domestic authorities to monitor the progress of the environmental mitigation plan.
- (ii) Prepare Quarterly Progress Reports during implementation and Project Completion Report within three months following construction completion.
- (iii) Under the direction of the international consultants, they will assist in establishing the environmental monitoring office (unit) and compliance monitoring system, including identification of functional responsibilities, human resource requirements and preparation of job description.
- (iv) Assist GIMAR management in selecting appropriately qualified personnel from existing staff or via external recruiting.
- (v) Create standardized computer documentation for recording and reporting monitoring activity and data, laboratory analytical data, and other documentation to be included in environmental management reports. Data management and reporting will be in English and Chinese.
- (vi) Assist in preparation of standard operating procedures and guidance documents based on all applicable PRC environmental standards (e.g., dust, noise, air, water quality), and ADB requirements and guidelines will also be undertaken.
- (vii) As necessary, provide training to construction workers on relevant environmental management requirement; supervise construction activity to ensure compliance monitoring activities, including: construction site inspections; sampling; data review, analysis, and compilation; and report preparation.
- (viii) Prepare periodic monitoring reports and the project completion report in Chinese and English.

Socio-economic Supervision and Monitoring

- (i) Assist the international consultants to develop a system to monitor socioeconomic impacts of the project.
- (ii) Based on the monitoring indicators, carry out the necessary data collection and surveys to provide a baseline for evaluation on impacts.
- (iii) Annually collect updated statistics and conduct socioeconomic surveys to assess project impacts. Conduct periodic field investigations of project components on poverty reduction.
- (iv) Assist the international consultants to provide training in socioeconomic monitoring for the implementing agencies.
- (v) Assist the international consultants to prepare annual Socioeconomic Monitoring and Evaluation Reports during implementation and a Project Completion Report following construction completion.

III. Consultant Organization and Expertise

7. International and national consultants financed under the loan will be recruited in accordance with ADB's *Guidelines on the Use of Consultants*. International consultants will be responsible for reviewing the design, bidding documents and assisting GIMAR and domestic

consultants in implementing the Project. International consultants will also be engaged to assist the PMO in developing and initiating the appropriate project management procedures and reports covering all subcomponents of the Project. The international consultant assistance to the PMO will place particular emphasis on social and environmental monitoring of the Project and carry out necessary reporting as required under the Loan agreement. The consultants shall also ensure that the technical aspects of the bidding documents allows international and local contractors to competitively bid on ADB financed contracts. They will also assist in the evaluation of bids and preparation of bid evaluation reports, and provide assistance regarding international practices, and construction supervision with emphasis on claims avoidance, and project management. The consultants shall assist in supervising construction testing, and commissioning of the Project as required. Domestic consultants will be engaged to assist the international consultants.

8. One international consulting firm will be selected using the Quality and Cost-Based (QCBS) Method and Full Technical Proposal (FTP). During the project implementation stage, a total of 88 person months (PMs) consultancy services will be required, which includes 12 PMs of international consultants, 56 PMs of domestic consultants, and 20 PMs of local consultant inputs will be allocated for engaging an independent monitoring unit with qualification and experience acceptable to the EA and ADB, to carry out to develop benchmarks and indicators for the economic, social, and environmental impact of the Project. The consultant team leader and energy specialist (4 PMs) will be responsible to the PMO/PIAs project managers for performance of the consulting services. The team leader should be familiar with project design, construction and operation. The consultant firm will provide a team of international and domestic experts with appropriate qualifications, experiences, and degrees of computer literacy to perform all the tasks specified herein.

9. In addition to the team leader, the team will consist of a wastewater and procurement specialist (3 PMs), an environmental expert (2 PMs), a financial management specialist (1 PMs), and a social and resettlement specialist (2 PMs). Besides international consultants, the consulting team will have domestic consultants including a project coordinator (10 PMs), a heating specialist (7 PMs), a wastewater specialist (5 PMs), a social and resettlement specialist (7 PMs), an energy economist (5 PMs) and an institutional specialist (7 PMs).

10. In addition to international and national consultants as indicated in para. 9, the implementation supervision consultants will include and impact monitoring unit (an independent domestic agency) with 20 person-months of domestic consulting services to develop benchmarks and indicators for the economic, social, and environmental impact of the Project, which are indicated in the Design and Monitoring Framework (Appendix 1 of RRP). The impact monitoring unit will also develop a monitoring mechanism and assist implementation consultants in preparation of progress reports.

11. The consultants will be working mainly either in the PMO/PIAs' headquarters, or at the Project construction sites, according to a predetermined time schedule, or as and when required. The consultant services are expected to commence from July 2006 and to be completed by December 2010.

IV. REPORTING

12. The consultants shall prepare and submit to GIMAR an implementation plan that covers report requirements in the Loan agreement, monthly consultants' progress reports, annual social and poverty impact assessment reports, periodic environmental monitoring and compliance reports, and independent special reports deemed appropriate by the consultants'

team leader or as requested by GIMAR. The report shall highlight details of procurement, disbursements and compliance to the Loan covenants.

13. GIMAR will provide the necessary office space with all facilities (telephone, fax, Internet connection and photocopier), domestic transportation, interpretation and translation services, and counterpart staff to enable the consultant to undertake the work efficiently.

Terms of Reference for Institutional Reform and the Corporate Improvement

Introduction

1. International and domestic consultants will be engaged by the Government of Inner Mongolia Autonomous Region (GIMAR) to carry out the Component D of the Project for tariff reforms and strengthening institutional capacity of the PMO and all PIAs and related international and domestic trainings. GIMAR has established a Project Management Office (PMO) which coordinates the project implementation agencies (PIAs) and will be the nodal project interface for all external agencies. The detailed outline of the terms of reference (TOR) for institutional strengthening is presented in the following sections, respectively.

Outline of TOR for Institutional Reforms and Strengthening

1. Objectives and Scope

2. The main objective of the institutional strengthening measures is to carry out tariff reforms and assist the PIAs to improve their operational efficiencies in a competitive market environment. The study will help the GIMAR provide adequate, affordable heating, gas and water for the urban poor by helping the GIMAR implement national tariff guidelines and improve tariff collection; design assistance programs for the poor; and develop an effective monitoring, supervision, and evaluation system at the provincial and local levels. The reform measures will include enterprise reforms, financial management improvement and the reforms in tariff setting and regulation. An action plan will be prepared to implement the national tariff, guidelines and analyze in-depth supply options for the urban poor, including technologies, funding strategy, special assistance programs and tariff design features to ensure central heating, gas and water services for the urban poor. The institutional strengthening is specifically aimed at assisting the PIAs in: (i) separating of Government function and commercialization and enterprise management; (ii) establishing management autonomy and accountability; (iii) adopting modern enterprise management system; and (iv) separating non-core business from core business. The tariff reforms will build on the past reforms, which have taken place to develop appropriate tariffs for heating, natural gas, and wastewater charges in IMAR.

2. Selection of Consultants

3. International and domestic consultants financed under the loan will be recruited in accordance with ADB's *"Guidelines on the Use of Consultants."* One consulting firm will be selected using the Quality and Cost-Based (QCBS) Method and Simplified Technical Proposal (STP).

3. Terms of Reference

I. Consultancy Activities

4. The major activities to be undertaken under the institutional strengthening are described below: (i) tariff reforms, (ii) corporate governance/enterprise reform, (iii) financial management systems improvement, (iv) private sector participation, and (v) trainings. The terms of reference for the consultants will provide the consulting assistance required for the institutional strengthening.

A. Tariff Reforms and Poverty Reduction

- (i) Determine the historical urban heating supply and demand patterns in IMAR and select the methodologies to forecast them for major cities.
- (ii) Interview provincial and city pricing bureaus and heating service companies (HSCs) to present a clear picture of heating tariff levels and structures, connection fees and any surcharges, revenue collection efficiency, tariff setting policies, criteria, methodologies, adjustment procedures and approval process, and any tariff discounts and/or design for helping the urban poor lower their heating expenses.
- (iii) Analyze the market share of central heating systems by heating technology and fuel type, and estimate the number of existing small coal-fired heat boilers, their heat production and supply efficiency, and associated amounts of pollutants emitted to the air annually, including greenhouse gases.
- (iv) Identify and analyze the financial regulatory, institutional, economic, technical, and social barriers for private sector participation in IMAR's urban heating sector.
- (v) Using provincial and city statistical data, draw up household profiles of the urban poor who receive city heating services. Households may be those (a) receiving the minimum living guarantee from the city government, (b) with incomes marginally higher than the minimum living guarantee, and (c) with vulnerable members (disabled, chronically sick, unable to work, aged 65 or over, laid off or retired from a bankrupt or financially troubled enterprise, etc.)
- (vi) Conduct an independent household survey in the pilot cities on heat consumption patterns, income profiles, heating expenses compared to household incomes, alternative and supplemental heating sources to central heating and the associated costs, affordable heating expense levels, willingness to pay for central heating service, dwelling energy efficiency, and other information.
- (vii) Analyze provincial and city policies, programs, and guidelines on providing heating assistance and subsidies to the urban poor, including program coverage and effectiveness, subsidy eligibility, subsidy level, methods for determining subsidy level, funding sources and levels, application and verification procedures, and subsidy delivery mechanism. If a city has no heating assistance policies or programs for the poor, identify the reasons why. Evaluate how the carbon market can fund such assistance.
- (viii) Review the pro-poor national heating tariff guidelines and other related recommendations under TA 3673-PRC¹, including lessons learned, reforms necessary, and resources required for implementation at the provincial level.
- (ix) Conduct participatory activities in the pilot cities to collect data from low-income and vulnerable households to determine their concerns regarding central heating, and estimate affordable heating payments based on this and previously collected information.

¹ ADB. 2000. *Technical Assistance to the People's Republic of China for Pro-Poor Urban Heating Tariff Reforms*. Manila.

- (x) Prepare an action plan for phased implementation of the pro-poor national heating tariff guidelines in IMAR. Identify barriers to implementation and propose measures to dismantle them.
- (xi) Based on the pro-poor national heating tariff guidelines, recommend specific heating tariff reforms, including tariff-setting criteria and methodologies, cost-reflective tariff structure, tariff application and approval procedures, consumption-based tariff, individual-based billing system, and commercial management of heating tariffs.
- (xii) Recommend ways to implement the reform measures in the TA for pro-poor urban heating tariff reforms², including installation of radiator control valves, heat measuring devices such as heat cost allocators or heat meters, and lock valves in individual apartment units.
- (xiii) Analyze urban heating supply and demand, and examine key issues relating to heating technology, investment programs, heating tariffs, collection mechanism, and legal and regulatory aspects of urban heating.
- (xiv) Evaluate supply options for the urban poor, taking into account their cost recovery and sustainability.
- (xv) Recommend least-cost heating supply options and technologies and ways to apply least-cost heating supply options in the heating assistance programs.
- (xvi) Discuss with the GIMAR implementation of the pro-poor national heating tariff guidelines in the pilot cities and provide training to personnel of provincial and city pricing bureaus and HSCs.
- (xvii) Develop comprehensive heating assistance programs to ensure adequate affordable heating for the urban poor, including instruments for output-based subsidies to target a group of beneficiaries.
- (xviii) Involve the urban poor in heating assistance programs to ensure that heating services will not be disconnected. These programs should (a) subsidize heating for the urban poor, and (b) help the urban poor improve efficiency of heat consumption and reduce their heating bills. Recommend a lifeline rate and other special heating tariff design features to lower the urban poor's heating bills.
- (xix) Analyze the economic, poverty, financial (including GIMAR's budget), and environmental impact of the heating assistance programs in the pilot cities in accordance with ADB guidelines and methodologies. The linkage between heating tariff reforms, adequate and affordable heating, and poverty reduction should be well established and quantitatively evaluated.
- (xx) Develop an effective monitoring and evaluation system by reviewing all related documents to determine a set of monitoring indicators in economic growth, energy efficiency, institutional reforms, poverty and social aspects, and environmental improvement. The indicators should be appropriate for the monitoring system's objectives, the main stakeholders, the speed with which the information is needed, and the cost.

² ADB. 2000. *Technical Assistance to the People's Republic of China for Pro-Poor Urban Heating Tariff Reforms*. Manila.

- (xxi) Assess resource requirement and institutional arrangement of monitoring the TA impact and identify data collection analysis and reporting skills, and management information system skills required to implement the monitoring and evaluation system. The consultants will identify the training requirements and provide the necessary trainings on monitoring.
- (xxii) Review the progress in training of provincial and district staff to implement the pro-poor heating tariff guidelines, and assess the need for monitoring and reporting software, among other things, to support implementation of the guidelines and heating assistance programs.
- (xxiii) Review IMAR and project cities' natural gas and wastewater sectors structures with a view to undertake tariff reforms towards the establishment of competitive markets.
- (xxiv) Develop an appropriate tariff setting methodology for wholesale and retail of natural gas and wastewater discharge tariff policy.
- (xxv) Formulate procedures for systematic updating of tariff levels, considering indexation to fuel prices, inflation and exchange rates.

B. Corporate Governance/Enterprise Reform

- (i) Review the PRC's Corporation Law approved by the State Council in 1994, and evaluate the implications of the reform program on the future role, reporting responsibilities, and corporate structure of the PIAs that have not already conducted reform under Corporation Law.
- (ii) Develop implementation plans for converting non-corporate PIAs into corporations according to Corporation Law.
- (iii) Review the corporate objectives and functions of the PIAs, and assist the PIAs in developing Charters and corporate policy statements.
- (iv) Review current compliance and areas of improvement in existing policies to increase corporate governance and management transparency, such as Annual Reporting, Board selection and responsibilities, internal and external auditing requirements, etc.
- (v) Review and evaluate the PIAs existing portfolios of companies and business units. Determine the legal requirements for the implementation of organization reforms such as: (a) spinning off into independent subsidiary companies for certain functional activities; and (b) separation of core and non-core business activities.
- (vi) Evaluate the financial and operational implications of various options of restructuring on the resulting individual independent firms. Consider various scenarios of tariff structures.
- (vii) From the findings in (i) to (vi), recommend appropriate organization structures for the wastewater, natural gas, and heating sectors that should be in place within two to three years. Recommend transition organization structures if deemed

necessary; and recommend the appropriate functions and compositions of the PIAs Boards.

- (viii) Assess the potential adverse social impacts of the restructuring program and of recommendations on reforms relevant to the establishment of competitive markets related to displaced workers, and propose measures to ameliorate the related social costs and estimate the corresponding costs.
- (ix) Review the need for the current number of staff for the given business size. Identify areas of redundancy and inefficiency – then make recommendations for adjustments and reductions as appropriate.
- (x) Review recruitment processes. Develop open recruiting practices to the overall labor market and make selections strictly based on the ability to meet the objective job requirement. Continue to enhance the recruitment process by introducing the preparation of position descriptions, the holding of recruitment interviews, and the formal announcement of successful applicants. Formulate a plan to mitigate likely social costs due to restructuring programs.

C. Financial Management Systems Improvement

- (i) Define the role of the financial management functions in attaining the corporate objectives and functions of PIAs resulting from the organizational recommendations proposed in Task 1 (vii).
- (ii) Review the strengths and weaknesses of the existing financial management systems and make necessary recommendations covering areas of cost accounting, financial reporting, corporate governance, budgeting, management administration, auditing and internal controls, and staff incentive schemes.
- (iii) Review the capabilities of any existing financial management software being used by the PIAs, and assess their adequacy and ability to function as proper management tools for the requirements of the operations of the envisaged core business units and for producing the necessary financial reports for the individual and consolidated business units.
- (iv) Review the needs, in regard to the financial management of the core business units under the market-oriented, commercially self-sustaining operations.
- (v) Review the automation hardware available in the PIAs for possible financial management systems applications.
- (vi) Recommend the steps required to enable the PIAs to develop, create and manage separate responsibility centers for each of the core and non-core businesses that would be responsible for the operations, maintenance, revenue generation, cost monitoring and control.
- (vii) Recommend equipment to be purchased for reinforcement of existing management information and accounting systems, and prepare an implementation plan based on these recommendations.
- (viii) Supervise the installation of new financial management systems and supervise one-month of operations of the various applications of the new systems.

- (ix) Prepare necessary manuals for the new financial management systems.
- (x) Recommend measure to overcome barriers to private sector participation in the urban heating sector.
- (xi) Develop an Annual Budgeting process that can be integrated with the financial accounts. Integrate the capital budgeting process as well as the operational budgeting process.
- (xii) Develop an Annual Report template that will capture operational and financial performance, including a summary of the General Manager's annual performance report.
- (xiii) Introduce an Annual Business Planning process where all business units and departments have to undertake and prepare a business plan for their delegated responsibilities. Combine a top-down and bottom-up approach to target setting and businesses planning – and then hold individuals responsible for achieving mutually agreed targets. Closely couple the business planning process to the annual budget process.
- (xiv) Develop a Management Performance System that provides for delegated responsibility to workers, regular accountability reviews and a system of rewards for outstanding performance. This system should include clear measurements of performance, regular operational reviews and corrective actions programs that are shared within the management team and overall workforce.
- (xv) Develop a Quality Management System for managing policies, procedures and work instructions. Upgrade the records management system and link this system with the QMS. This system should be a driver for Continuous Improvement efforts.
- (xvi) Develop a Compliance Management Process to ensure that the corporation is able to adequately meet all its legal and policy obligations, as well as IA's mandated policies and practices.
- (xvii) Develop a Risk Management Process to ensure that the PIAs, when operating with a limited number of people, is able to assign resources to those areas with the highest needs. Also develop systems and audits to identify various types of business risks related to the market, internal operations and financial controls.

D. Organizational Reform and Domestic/Overseas Trainings

- (i) Review the level of skills and training requirements for PIAs staffs to be involved in the implementation of recommendations resulting from the above.
- (ii) Review PIAs' overall training programs and recommend additions to improve institutional capabilities, in particular, commercial business practices and management including development of general and financial management systems, bill collection, and tariff-setting procedures.
- (iii) Develop appropriate on-the-job and formal training programs for the identified training requirements.

- (iv) Together with the PIAs, develop an implementation schedule for overseas study tours for the identified training areas, including: (a) human resources development, (b) financial management systems and tariff setting, (c) independent enterprise organization and operations, (d) utilities marketing, and (e) corporate management.
- (v) The consultants will implement training programs in Hohhot and prepare training material in English and Chinese. The PMO will make arrangements for a suitable venue with audio-visual aid to facilitate the knowledge transfer.
- (vi) Organize the relevant PIA staff for overseas trainings. The Consultant shall be responsible for arranging relevant issues such as program, itinerary, local transportation, board and room etc., taking necessary measures to insure security of the client staff, and assisting to handle the entry visa while the client staff conducts investigation, research and training abroad.

II. Consultant Organization and Expertise

5. A total of 62 person months (PMs) consultancy services will be engaged, which includes 9PMs of international consultants and 53 PMs of domestic consultants. The team leader will be responsible to the PMO/PPIAs project managers for performance of the consulting services. The team leader should be the tariff specialist. The consulting firm will provide a team of consultants with appropriate qualifications, experience, and degree of computer literacy to perform all tasks specified herein. In addition to the Team Leader (4PMs), the international consultants will include an institutional and training expert (2PMs), a financial analyst (1PMs), and energy economist (1PMs), and a social specialist (1PMs). The 6 local consultants will include a training specialist (10PMs), an institutional specialist (8PMs), a financial expert (8PMs), an energy economist (9PMs), a tariff specialist (9PMs), and a social specialist (9PMs). The consultants' personnel will work mainly either in the PMO/PIAs' headquarters, or at the Project construction site, according to a predetermined time schedule, or as and when required. The consultant services are expected to commence in December 2006 and be completed by December 2008.

III. Reporting

6. At the beginning of the consulting services, the consultants shall prepare and submit to GIMAR and ADB an implementation plan for Part D, an inception report, a draft final report and a final report and other independent special reports deemed appropriate by GIMAR.

IV. Input of GIMAR

7. GIMAR will provide the necessary office space with all facilities (telephone, fax, Internet connection and photocopier), domestic transportation, interpretation and translation services, and counterpart staff to enable the consultant to undertake the work efficiently.

V. Cost Estimates

8. The related consultancy fees are estimated at US\$600,000. A budget of \$350,000 for international and domestic trainings will be also attached to this package.

Inner Mongolia Autonomous Region Environment Improvement Project Procurement Plan

Project Information	Loan No.: PRC39019-01
Country	People's Republic of China (PRC)
Name of Borrower	People's Republic of China (PRC)
Project Name	IMAR Environment Improvement Project
Loan or TA Reference	PRC 39019-01
Date of Effectiveness	
Amount US\$	US\$120,000,000.00
Of which Committed, US\$	
Executing Agency	GIMAR
Approval Date of Original Procurement Plan	
Approval of most recent Procurement Plan	
Publication for Local Advertisements	
Period Covered by this Plan	Jun 2006 – Dec 2007

Procurement Thresholds, Goods & Related Services, Works and Supply and Install

Procurement Method	To be used above (Value \$)
ICB Works	US\$ 10,000,000
ICB Goods	US\$ 1,000,000
NCB Works	US\$ 1,000,000
NCB Goods	US\$ 100,000
Shopping Works	<US\$ 100,000
Shopping Goods	<US\$ 100,000
Exceptional Methods	
If limited international bidding, direct contracting, force account or community participation in procurement will be employed on the project, list them here and described the circumstances under which they may be employed.	N/A

Procurement Thresholds, Consultants Services

Procurement Method	To be used above (Value \$):
Quality Cost Based Selection (QCBS)	ALL AMOUNT
Consultants Qualifications Selection (CQS)	N/A
Least Cost Selection (LCS)	N/A
Alternative Methods	
If quality based selection (QBS), fixed budget selection, single source selection or selection of individual consultants that will be employed on the project list them here and described the circumstances under which they may be employed.	N/A

Ref Contract	Description	Method	Expected Date of Advertisement	Prior Comments Review Y/N
Part A: Urban Central Heating Supply				
1.	Boiler and fans			
a.	Wuhou	ICB	15-Oct-07	Y
b.	Hanghou	ICB	15-Oct-07	Y
c.	Wuyuan and Dengkou	ICB	15-Oct-07	Y
2.	Electrical equipment and Instrumentation and control system			
a.	Wuhou and Hanghou	ICB	15-Oct-07	Y
b.	Wuyuah and Dendkou	NCB	15-Oct-07	Y
3.	Insulation Pipes and fittings, compensators			
a.	Wuhou	ICB	15-Aug-07	Y
b.	Hanghou	ICB	15-Aug-07	Y
c.	Wuyuan and Dengkou	ICB	15-Aug-07	Y
d.	Linhe	ICB	15-Aug-07	Y
4.	Water pumps, valves, and heat exchange system			
a.	Wuhou and Hanghou	ICB	15-Oct-07	Y
b.	Wuyuan and Dengkou	ICB	15-Oct-07	Y
c.	Linhe (including electrical equipment and control system)	ICB	15-Oct-07	Y
5.	Wuhai Central Heating Supply			
a.	Insulation Pipes and fittings, compensators	ICB	15- Aug -07	Y
b.	Water pumps, valves, heat exchange system, instrument and control system	ICB	15-Oct-07	Y
Part B: Natural Gas Transmission and Distribution Improvement				
6.	Equipment for All Eight Gas Distribution			
a.	Equipment	ICB	15-Oct-07	Y
7.	Water pumps, valves, and heat exchange system			Y
a.	Materials for all 8 Gas Distribution	ICB	15-Oct-07	Y
8.	Central heating system for Wuhai	NCB	15-Aug-07	N
9.	Bayannur City Compressors and Other Equipment for Primary Filling Station	ICB	15-Oct-07	Y
10.	Installation and Civil Works for Distribution and Primary Filling Station	NCB	15-Aug-07	Y

Ref Contract	Description	Method	Expected Date of Advertisement	Prior Comments Review Y/N
11.	Changqing-Wuhai-Linhe Transmission Pipeline			
a.	Equipment Lot (1)	ICB	20-Oct-07	Y
b.	Equipment Lot (2)	ICB	29-Dec-07	Y
c.	Piping and Fittings Lot (1)	ICB	20-Oct-07	Y
d.	Piping and Fittings Lot (2)	ICB	29-Dec-07	Y
12.	Installation Works Changqing-Wuhai- Linhe Transmission Pipeline			
a.	Lot (1)	NCB	15-Oct-07	Y
b.	Lot (2)	NCB	15-Oct-07	N
c.	Lot (3)	NCB	15-Oct-07	N
d.	Lot (4)	NCB	15-Oct-07	N
13.	Pipeline Installation and Civil Works for Terminal Stations of Changqing- Wuhai-Linhe Transmission Pipeline	NCB	15-Aug-07	N
Part C: City Wastewater Treatment				
14.	Wulatehou Waste Water Plant			
a.	Civil Works	NCB	15-Jun-07	Y
b.	Equipment and Pipelines	ICB	15-Aug-06	Y
Part D: Institutional Reforms and Corporate Governance Improvement				
15.	Consulting Services			
a.	Institutional strengthening	QCBS	N/A	Y
b.	Project implementation supervision	QCBS	N/A	Y
c.	Project management and related tasks	N/A	N/A	

PRO FORMA OF THE EXECUTING AGENCY'S PROJECT PROGRESS REPORT

A. Introduction and Basic Data

Provide the following:

- ADB loan number, project title, borrower, executing agency(ies), implementing agency(ies);
- total estimated project cost and financing plan;
- status of project financing including availability of counterpart funds and cofinancing;
- dates of approval, signing, and effectiveness of ADB loan;
- original and revised (if applicable) ADB loan closing date and elapsed loan period based on original and revised (if applicable) loan closing dates; and
- date of last ADB review mission.

B. Utilization of Funds (ADB Loan, Cofinancing, and Counterpart Funds)

Provide the following:

- cumulative contract awards financed by the ADB loan, cofinancing, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets);
- cumulative disbursements from the ADB loan, cofinancing, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets); and
- reestimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

C. Project Purpose

Provide the following:

- status of project scope/implementation arrangements compared with those in the report and recommendation of the President (RRP), and whether major changes have occurred or will need to be made;
- an assessment of the likelihood that the immediate development objectives (project purpose) will be met in part or in full, and whether remedial measures are required based on the current project scope and implementation arrangements;
- an assessment of changes to the key assumptions and risks that affect attainment of the development objectives; and
- other project developments, including monitoring and reporting on environmental and social requirements that might adversely affect the project's viability or accomplishment of immediate objectives.

D. Implementation Progress

Provide the following:

- assessment of project implementation arrangements such as establishment, staffing, and funding of the PMO or PIU;

- information relating to other aspects of the EA's internal operations that may impact on the implementation arrangements or project progress;
- progress or achievements in implementation since the last progress report;
- assessment of the progress of each project component, such as,
 - recruitment of consultants and their performance;
 - procurement of goods and works (from preparation of detailed designs and bidding documents to contract awards); and
 - the performance of suppliers, manufacturers, and contractors for goods and works contracts;
- assessment of progress in implementing the overall project to date in comparison with the original implementation schedule—quantifiable and monitorable target, (include simple charts such as bar or milestone to illustrate progress, a chart showing actual versus planned expenditure, S-curve graph showing the relationship between physical and financial performance, and actual progress in comparison with the original schedules and budgets, the reference framework or guidelines in calculating the project progress including examples are shown in Appendix 2); and
- an assessment of the validity of key assumptions and risks in achieving the quantifiable implementation targets.

E. Compliance with Covenants

Provide the following:

- the borrower's compliance with policy loan covenants such as sector reform initiatives and EA reforms, and the reasons for any noncompliance or delay in compliance;
- the borrower's and EA's compliance with financial loan covenants including the EA's financial management, and the provision of audited project accounts or audited agency financial statements; and
- the borrower's and EA's compliance with project-specific loan covenants associated with implementation, environment, and social dimensions.

F. Major Project Issues and Problems

Summarize the major problems and issues affecting or likely to affect implementation progress, compliance with covenants, and achievement of immediate development objectives. Recommend actions to overcome these problems and issues (e.g., changes in scope, changes in implementation arrangements, and reallocation of loan proceeds).

SAMPLE AUDIT LETTER

ASIAN DEVELOPMENT BANK
Regional Department
 EAEN/EARD

4 May 2007¹

[The Borrower]
 Dear Sir or Madam:

Subject: **[Loan No.2181-PRC: Inner Mongolia Autonomous Environment
 Improvement Project]
 FINANCIAL REPORTING AND AUDITING REQUIREMENTS**

This letter is to ensure your timely compliance with the loan covenants and the quality of financial information as required by ADB. ADB's *Handbook for Borrowers on the Financial Governance and Management of Investment Projects Financed by the ADB* (the Booklet) is enclosed to guide you.

ADB, by its Charter, is required to ensure that the proceeds of any loan made, guaranteed, or participated in by ADB are used for the purposes for which the loan was approved. ADB requires accurate and timely financial information from its borrowers to be assured that expenditure was for the purposes stated in the loan agreement.

For this particular loan, the requirements are stipulated in sections ____² and ____³ of the Loan Agreement of _____ between ADB and [the Borrower] and sections ____⁴ and ____⁵ of the Project Agreement⁶ of _____ between ADB and [name of the EA].⁷ Copies of the Loan/Project Agreements are enclosed for onward transmission by your office to your EA and the auditor(s), together with a copy of this letter.

The following are the main requirements:

ADB requires the EA to maintain separate project accounts and records exclusively for the Project to ensure that the loan funds were used only for the objectives set out in the Loan or Project Agreements. The project accounts comprise the following:⁸ The first set of project accounts to be submitted to ADB covers the fiscal year ending _____. As stipulated in the Loan or Project Agreements, they are to be submitted up to _____ months after the end of the fiscal year. For this loan, the deadline is by _____. A sample report format with explanatory notes, is attached as Annex A.

The accounts and records for the project are to be consistently maintained by using sound accounting principles. Please stipulate that your external auditor is to express an opinion on whether the financial report has been prepared using international or local generally accepted accounting standards and whether they have been applied consistently. ADB prefers project accounts to use international accounting standards prescribed by the International Accounting Standards Committee. Please advise your external auditor to comment on the impact of any deviations, by [name of the Executing Agency] from international accounting standards.

Please ensure that your external auditor specifies in the Auditor's Report the appropriate auditing standards they used, and direct them to expand the scope of the paragraph in the Auditor's Report by disclosing the key audit procedures followed. Your external auditor is also to state whether the same audit procedures were followed for all

supplementary financial statements submitted. ADB wishes that auditors conform to the international auditing standards issued by the International Federation of Accountants. In cases where other auditing standards are used, request that your external auditor to indicate in the Auditor's Report the extent of any differences and their impact on the audit.

The external auditor's opinion is also required on whether

- the proceeds of the ADB's loan have been utilized only for the project as stated in the Loan Agreement;
- the financial information contains data specifically agreed upon between [name of the Borrower or EA] and ADB to be included in the financial statements;
- the financial information complies with relevant regulations and statutory requirements; and
- compliance has been met with all the financial covenants contained in the Loan or Project Agreements.

The Auditor's Report is to clearly state the reasons for any opinions that are qualified, adverse, or disclaimers.

Actions on deficiencies disclosed by the external auditor in its report are to be resolved by [name of Borrower or Executing Agency] within a reasonable time. The external auditor is to comment in the subsequent Auditor's Report on the adequacy of the corrective measures taken by [name of Borrower or EA].

Compliance with these ADB requirements will be monitored by review missions and during normal project supervision, and followed up regularly with all concerned, including the external auditor.

Yours sincerely,

Director /Country Director
(Sector Division/Resident Mission)

cc: (EA)
(External auditor of the Borrower or EA)

Notes:

1. The audit letter, with the loan and project agreements, is sent to the borrower when the auditor has been appointed or when the agreements are sent by the program department to the MOF or other authority.
2. Specify section no. in the loan agreement on maintaining project accounts and records.
3. Specify section no. in the loan agreement on the audit requirements.
4. Specify section no. in the project agreement on maintaining project accounts and records.
5. Specify section no. in the project agreement on the audit requirements.
6. If there is a project agreement.
7. When more than one project agreement, provide similar information.
8. Standard accounts required from nonrevenue-earning entities. Try to identify specific titles of financial statements expected to be submitted by the Borrower and EAs. For revenue-earning entities, the submissions consist of the entities' audited financial statements. For nonrevenue-earning entities, the submissions consist of audited project accounts.

STATUS OF COMPLIANCE WITH LOAN PROVISIONS

Provision	Reference	Compliance Status
<u>Project Executing Agency</u>		
1. GIMAR shall be the Project Executing Agency responsible for overall implementation of the Project. A project management office (PMO) will be responsible for managing, coordinating, and supervising implementation of all project sub-components.	Loan Agreement (LA), Schedule 5, para. 1, para 2	
<u>Project Implementing Agency</u>		
2. The Project subcomponents will be implemented by each concerned PIA. The following PIAs shall be responsible for day-to-day implementation of the relevant part of the Project as follows:	LA, Schedule 6, para. 3	
(i) Bayannur Fuyuan Shiye Group Limited Co. shall be responsible for implementation of Component A in each of (a) Dengkou, (b) Linhe, and (c) Wuyuan;		
(ii) Inner Mongolia Haosheng Thermal Limited Co. shall be responsible for implementation of Component A in Hangjinhou;		
(iii) Inner Mongolia Saiwaixing Huazhang Paper Limited Co. shall be responsible for implementation of (a) Component A and (b) Component C, both in the Project city of Wulateqianqi;		
(iv) Inner Mongolia Western Natural Gas Limited Co. shall be responsible for implementation of Component B;		
(v) Wuhai Thermal Co. shall be responsible for implementation of Component A in Wuhai;		
(vi) Wulatehouqi Huibao Thermal Limited Co. shall be responsible for implementation of Component A in Wulatehou;		
(vii) Wulatehouqi Water Company shall be responsible for implementation of Component C in Wulatehou; and		
(viii) Wulatezhongqi Dagong Thermal Limited Co. shall be responsible for implementation of Component A in Wulatezhong;		
3. Each such PIA will establish a project implementation office (PIO) to be directly responsible for design, construction, and operation of its subcomponents.		
<u>Counterpart Funding</u>		
4. The Borrower shall ensure, and shall cause GIMAR to ensure, that all necessary financing (other than from the Loan proceeds) including cash injection and equity contributions are provided on a timely basis to enable the full and timely completion of the Project. In the event of any shortfall or disruption in the financing of the Project due to, inter alia, the lack or inadequacy of funding of, or delay in financing by, or change of control within, any of the PIAs, the Borrower shall cause GIMAR to provide prompt and adequate funds as may be necessary for successful implementation of the Project.	LA, Schedule 5, para. 5	

Provision	Reference	Compliance Status
<u>Change in Ownership and Operation</u>		
5. In the event (a) of any change in ownership of the Project facilities or (b) any sale, transfer or assignment of shares or interest or other change of control in any PIA is anticipated, the Borrower shall, and shall cause that GIMAR and the concerned PIA to, consult with ADB at least six months prior to the implementation of such change. The Borrower shall, and shall cause GIMAR to, ensure that such change be carried out in a lawful and transparent matter.	LA, Schedule 5, para. 6	
<u>Implementation of Heating Tariff Reforms</u>		
6. The Borrower shall through GIMAR cause the PIAs to progressively implement at the city level key heating tariff reforms including: (a) installation of lock valves in individual apartment units in buildings to improve tariff collection; (b) installation of radiator control valves in apartment units in buildings to encourage heat conservation; (c) implementation of two-part heating tariff structure that the variable charge shall be based on heat consumption; the overall heating tariff level should be cost-reflective and promote economic efficiency; (d) installation of heat measuring devices at apartment level to support consumption-based billing systems; and (e) conversion from enterprise-based tariff payment system to individual-based payment system.	LA, Schedule 5, para. 7	
<u>Reporting</u>		
7. GIMAR shall furnish to ADB quarterly reports on the execution of the Project during the construction period and reports on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.	PA, Section 2.08(b)	
8. Promptly after physical completion of the Project, but in any event not later than three (3) months thereafter or such later date as ADB may agree for this purpose, GIMAR shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its costs, the performance by GIMAR of its obligations under this Project Agreement and the accomplishment of the purposes of the Loan.	PA, Section 2.08(c)	
9. GIMAR shall maintain separate accounts for the Project and shall cause the PIAs to maintain separate accounts for their respective Components or subcomponents. GIMAR shall, and shall cause the PIAs to, (i) have such accounts and related financial statements (balance sheet, statement of income and expenses, and related statements) audited annually, in accordance with appropriate auditing standards consistently applied, by external auditors whose qualifications, experience and terms of reference are acceptable to ADB; and (ii) furnish to ADB,	PA, Schedule, Section 2.09(a)	

Provision	Reference	Compliance Status
<p>promptly after their preparation but in any event not later than 6 months after the close of the fiscal year to which they relate, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto (including the auditors' opinion on the use of the Loan proceeds and compliance with the covenants of the Loan Agreement as well as on the use of the procedures for imprest account and statement of expenditures), all in the English language. GIMAR shall, and shall cause the PIAs to, furnish to ADB such further information concerning such accounts and financial statements and the audit therefore as ADB shall from time to time reasonably request.</p>		
<u>Closure of Small Coal-fired Heating Boilers</u>		
<p>10. GIMAR shall ensure that the PIAs complete the closure of 396 small coal-fired heat boilers identified for closure under the Project by 31 December 2009. The demolishing of boilers shall be carried out in accordance with all applicable PRC environmental and safety standards. In accordance with ADB's Social Protection Strategy, GIMAR shall cause the PIAs to ensure that all workers affected by the closure of the small coal-fired heat boilers under the Project are reemployed in a timely manner and in accordance with the reemployment action plan so that they will be at least as well off as they would have been in the absence of the Project.</p>	PA, Schedule, para. 3	
<u>Heating Assistance to the Poor</u>		
<p>11. GIMAR shall ensure that the PIAs implement the pro-poor programs that provide heating tariff discounts to the poor based on the cost savings from efficiency improvement under the Project. GIMAR shall ensure that the government-funded heating assistance programs to assist the poor and those with incomes marginally higher than the poverty level to pay heating bills are established in the Project area.</p>	PA, Schedule, para. 6	
<u>Financial Performance of the PIAs</u>		
<p>12. In each fiscal year commencing from fiscal year 2007, GIMAR shall ensure that PIAs maintain a debt-service coverage ratio of at least 1.4 times; and a current ratio of greater than 1:1 by 2010 and thereafter, and a debt-equity ratio of not greater than 70:30.</p>	PA, Schedule, para. 7	
<u>Institutional Strengthening</u>		
<p>13. GIMAR shall ensure that the PIAs implement, in accordance with the implementation plan agreed upon between the GIMAR and ADB, the agreed upon recommendations for financial and institutional strengthening made by the consultants under Component D of the Project, in particular with regard to improving cost accounting and financial management and reporting, corporate governance, budgeting, management administration, and staff incentive schemes.</p>	PA, Schedule, para. 8	
<u>Environment</u>		
<p>9. GIMAR shall ensure that the PIAs implement the Project</p>	PA, Schedule, para.	

Provision	Reference	Compliance Status
<p>in accordance with national and local government environmental laws, regulations, procedures, guidelines, the ADB <i>Environment Policy</i>, 2002, and the EIA. The GIMAR shall, and shall cause the PIAs to, ensure that any adverse environmental impacts from the construction and operation of the Project will be minimized, by implementing the mitigation measures in the EMP and environmental monitoring plan. Environmental monitoring reports shall be submitted to ADB twice annually during construction and annually for 2 years during the operational period. The EMP (mitigation measures, monitoring plan and institutional arrangement) shall be updated during the engineering design stage, and will be incorporated in the bidding documents and civil works contracts.</p>	9	
<p><u>Land Acquisition and Resettlement</u></p>		
<p>14. GIMAR shall through the Municipal Governments and County Governments cause PIAs to (a) implement the RP in accordance with its terms, (b) ensure that all land and rights-of-way required by the Project are made available in a timely manner, (c) ensure that the provisions of the RP, including compensation and entitlements for affected persons (AP), will be implemented in accordance with all applicable Borrower's laws and regulations, and ADB's <i>Policy on Involuntary Resettlement</i>, 1995, (d) ensure all affected people are provided adequate information and regularly consulted in advance of signing household compensation agreements, (e) ensure timely provision of counterpart funds for land acquisition and resettlement activities, (f) meet any obligations in excess of the RP budget estimate (g) ensure that the AP will be at least as well off as they would have been in the absence of the Project, and (h) ensure that the RP will be updated on completion of the detailed measurement survey and submitted to ADB for review and approval. GIMAR shall ensure that PIAs notify ADB in advance of any significant changes, update the RP as necessary, and submit to ADB such updated RPs. GIMAR shall cause the PIAs to ensure that civil works contractors' specifications include requirements to comply with the RP and entitlements for permanent and temporary impacts to the AP, and will supervise the Project contractors to ensure compliance with requirements of RP, applicable law and ADB's <i>Policy on Involuntary Resettlement</i>, 1995. GIMAR shall, and shall cause the PIAs to, keep ADB informed of the progress of implementation of the RP through the quarterly progress reports and through two reports on achievement of resettlement objectives to be submitted immediately upon completion of the resettlement plan and one year thereafter. GIMAR shall engage an independent domestic agency to (a) monitor the implementation of the RP including the extent to which adverse social impacts have been compensated for, (b) provide inputs for the quarterly progress reports on the implementation of the RP, and (c) prepare an evaluation report of the resettlement one year after completion. GIMAR shall, and shall cause the PIAs to, ensure that the payment of compensation and all resettlement assistance prior to APs being dispossessed of their assets and external monitoring reports will be submitted to</p>	<p>PA, Schedule, para. 10</p>	

Provision	Reference	Compliance Status
ADB.		
<u>Gender and Development</u>		
15. GIMAR shall ensure that the PIAs follow the principles of the ADB's <i>Policy on Gender and Development, 1998</i> during implementation of the Project, including taking all necessary actions to encourage women living in the Project area to participate in planning and implementing Project activities. GIMAR, in coordination with the appropriate agencies, shall ensure the effective implementation of measures aimed at increasing project benefits and impacts on women in and around the Project area, which are included in the Social Development Action Plan.	PA, Schedule, para. 11	
<u>Health and Social Risks</u>		
16. GIMAR shall ensure that the PIAs, together with the appropriate government authorities, require contractors employed under the Project to disseminate information (in local languages) on the risks of sexually-transmitted infections, including HIV/AIDS, in health and safety programs to those employed during Project implementation. Specific provisions to this effect shall be included in bidding documents and civil works contracts, and compliance shall be strictly monitored by the GIMAR and the PIAs.	PA, Schedule, para. 12	
<u>Labor and Employment</u>		
17. GIMAR shall, and shall cause the PIAs to, ensure that Project contractors: (a) are encouraged to use local labor and local materials in Project works; (b) provide equal pay to men and women for work of equal type; (c) provide safe working conditions for both male and female workers, (d) maximize employment for the affected persons with equal access to women, including disadvantaged women, (e) comply with applicable labor laws, and (f) abstain from child labor in construction, operation and maintenance activities on Project facilities.	PA, Schedule, para. 14	
<u>Anticorruption measures</u>		
GIMAR shall, and shall cause the PIAs to: (i) undertake necessary measures to create and sustain a corruption-free environment, (ii) ensure that Borrower's anticorruption laws and regulations and ADB's <i>Anticorruption Policy, 1998</i> , are strictly enforced and are being complied with during Project implementation, and that relevant provisions of ADB's <i>Anticorruption Policy</i> are included in all bidding documents for the Project, (iii) facilitate in ADB's exercise of its right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project, (iv) conduct periodic inspections on the Project contractor's activities related to fund withdrawals and settlements, and (v) ensure that all contracts financed by ADB in connection with the Project include provisions specifying the right of ADB to audit and examine the records and accounts of the PIAs and all contractors, suppliers, consultants and other service providers as they relate to the Project. GIMAR shall also (i) involve full-time officials from the	PA, Schedule, para. 15	

Provision	Reference	Compliance Status
Finance Bureau of IMAR in the supervision of bidding, construction, and operations; and (ii) carry out periodic inspections of the contractors' activities related to fund withdrawals and settlements.		
<u>Monitoring and Evaluation</u>		
16. GIMAR shall monitor and evaluate Project impacts, with assistance of the consultants engaged under the Project, as specified in the project performance management system (PPMS) developed for the Project and agreed to by GIMAR, to ensure that the Project facilities are managed effectively and the benefits, particularly to the poor, are maximized. GIMAR shall (i) engage consultants for monitoring and evaluation by December 2006, (ii) facilitate the data collection from local governments, including local statistics offices, to measure the indicators in the PPMS during Project implementation, at completion, and biennially, for 5 years thereafter, with the frequency as specified in the PPMS; and (iii) submit to ADB the reports summarizing the key findings.	PA, Schedule, para. 16	

Key Persons involved in the Project

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Ze Li	Project Management Office	PMO Director	86-13904718819
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Xiaoli Liu	Project Management Office	PMO Vice Director	86-13304711007
Huan Wang	Project Management Office	PMO Administrative Vice Director	86-13500692883
Quan Bao	Inner Mongolia Financial Bureau	Staff	
Zhiming Liu	Inner Mongolia Western Natural Gas Limited Co.	Deputy General Manager	
Guixin Zang	Wulatehouqi Huibao Thermal Limited Co.	Vice-President	86-13394836555
Wenbin Zhao	Bayannur Fuyuan Shiye Group Limited Co.	General President	86-13947836350
Lixiang Feng	Wuhai Thermal Co.	Deputy President	86-13947308238
Jun Sheng	Inner Mongolia Haosheng Thermal Limited Co.	President	86-13848748966