



China, People's Republic of: PRC: Natural Gas for Land and River Transportation Project

Project Name	PRC: Natural Gas for Land and River Transportation Project		
Project Number	48281-001		
Borrower/Company	CHINA GAS HOLDINGS LTD		
Country	China, People's Republic of		
Location			
Approval Number	7432/3206, 7432		
Type or Modality of Assistance	7432/3206	Loan	US\$ 150.00 million Approved
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth		
Drivers of Change	Private sector development		
Sector / Subsector	Energy - Energy efficiency and conservation - Oil and gas transmission and distribution Transport - Urban public transport - Water transport (non-urban)		
Gender Equity and Mainstreaming	No gender elements		
Responsible ADB Department	Private Sector Operations Department		
Responsible ADB Division	Portfolio Management Division, PSOD		
Responsible ADB Officer	Hayato Hoshi		
Project Sponsor(s)	CHINA GAS HOLDINGS LIMITED		
Description	<p>Air pollution continues to be a major environmental challenge in the PRC. Less than 1% of the 500 main cities in the PRC meet the air quality standards recommended by the World Health Organization. Although industrial emissions have stabilized in the past few years, a rapid increase in vehicular traffic volumes has created a new threat in the form of vehicle and vessel emissions. This factor, as well as the technological developments inspired by successful cases in Europe, has created renewed interest in the application of both compressed natural gas (CNG) and liquefied natural gas (LNG) in the transport sector, since heavily polluting fuels such as diesel can be replaced with natural gas, which produces no particulate matter, 25% less carbon dioxide, less than one-third as much nitrogen oxides, and 99% less sulfur dioxide than conventional fuel.</p> <p>CNG is suitable for short-distance inner-city transportation and, therefore, can be used by cars, taxis, and buses. LNG has superior energy density and is more appropriate for long-distance transportation, such as long-distance trucking. Furthermore, there is untapped potential for further greening transportation using LNG for inland waterway transport (IWT). The PRC has the world's largest IWT network, both in terms of length and freight volume.</p> <p>The proposed project is designed to facilitate the use of natural gas as a transportation fuel by building CNG and LNG refueling stations along long-distance land transportation corridors and IWT networks in the PRC that cross municipal and provincial boundaries. With the proposed facility, CGH plans to build and operate subprojects of 600 CNG and 200 LNG filling stations for land-based vehicle use and another 20 LNG filling stations for IWT vessel use during 2015- 2018.</p>		
Objectives and Scope	<p>The successful implementation of the project and deployment of natural gas for multimodal transportation will diversify the energy mix in the PRC by increasing the proportion of natural gas, and increase the availability of natural gas as a transportation fuel in the country.</p> <p>The outcome will be development of a commercially viable low-carbon transport fuel system. The project is expected to generate new jobs and reduce greenhouse gas emissions while also acting as a catalyst for private sector participation in the sector.</p> <p>The expected outputs include the increased availability of CNG and LNG stations meeting safeguards standards. The project will involve the construction and operation of 600 CNG and 200 LNG refueling stations for use by land-based vehicles and 20 LNG refueling stations for IWT vessel use during 2015-2018, all of which will comply with ADB safeguard standards and technical eligibility criteria.</p>		

Linkage to Country/Regional Strategy	<p>By supporting environmental sustainability, the project directly addresses key development goals of the PRC country partnership strategy and aligns with the country partnership strategy's sector priority of pollution control. Environmental sustainability will continue to be a major strategic objective of ADB support to the PRC as will the PRC's delivery of environmental regional and global public goods. The project strongly complements ADB's East Asia Department's current initiatives in climate change mitigation energy projects and greening transport portfolio.</p> <p>The project is in line with ADB's Energy Policy, as further penetration of natural gas will contribute to promoting enhanced access to clean energy. It will also demonstrate ADB's commitment to focusing future transport sector support on the more sustainable forms of transport, in line with the Sustainable Transport Initiative. The project will serve as a demonstration of the potential of natural gas for IWT use in the PRC and in other developing member countries with IWT potential.</p>
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Safeguard Categories

Environment	B
Involuntary Resettlement	B
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	<p>The project is classified category B for environment. The potential adverse environmental impacts are site specific and mostly reversible. CGH's environmental and social management system (ESMS) will ensure development of quality initial environmental examinations with environmental management plans (EMPs), and implementation of the EMPs. Initial environmental examinations will be prepared for all ADB subprojects. With regard to LNG station sites, only those which avoid any adverse impacts on biodiversity will be selected. The land transport CNG and LNG stations will have no or negligible adverse impacts on biodiversity as they will be constructed adjacent to highways. For climate change mitigation, CGH implements boil-off gas compressors in its facilities to recover any leaked natural gas and feeds into the cities' natural gas networks. Potential adverse impacts associated with construction will be minimized by the ESMS through EMP implementation. Potential adverse environmental impacts of gas refilling station operation are associated with accidents. A quality ESMS can minimize the accident risks. CGH will improve its ESMS to fully comply with the Safeguard Policy Statement with regard to the project. The improved ESMS will include (i) public consultation for subproject planning and implementation, (ii) a project screening system to avoid potential significant adverse environmental impacts, (iii) an initial environmental examination quality assurance system, (iv) EMP implementation arrangements of ADB subproject subsidiaries, and (v) an ESMS implementation reporting system from the subsidiaries to ADB through CGH. ADB will confirm the company's improved ESMS before the first disbursement.</p>
Involuntary Resettlement	<p>The project is classified category B for involuntary resettlement. Refilling station locations can be flexibly selected and they are commonly sited along main roads. The construction of refilling stations will be mainly in medium-sized cities. Land acquisition is not expected to be significant and is normally carried out by the local governments before awarding of the concession. CGH will follow its improved ESMS prior to the disbursement and recruit capable staff and/or consultants to ensure that the ESMS is implemented. The ESMS will include resettlement policy principles and procedures to ensure that subprojects using ADB funds are screened. If the subprojects entail physical and economic displacement, resettlement plans will be prepared following national laws of the PRC and in accordance with the Safeguard Policy Statement requirement 2 on involuntary resettlement.</p>
Indigenous Peoples	<p>The project is classified category C for indigenous peoples. The project will not have any adverse impact on ethnic minorities.</p>
Stakeholder Communication, Participation, and Consultation	

Timetable for assistance design, processing and implementation

Concept Clearance	21 Jul 2014
Due Diligence	22 Aug 2014
Credit Committee Meeting	06 Oct 2014
Approval	04 Dec 2014
Last PDS Update	15 Dec 2014

Project Page	https://www.adb.org/projects/48281-001/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=48281-001

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