

FINANCING CHALLENGES FOR NATURAL GAS PROJECTS IN BANGLADESH

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Financing gas projects is a major challenge for South Asian countries. Due to the inherent constraints of the gas value chain, gas projects require large capital costs.¹ In South Asia, since governments are usually responsible for gas transmission and downstream facilities, financing gas projects in the region is a major constraint.² This level of investment is beyond the capacity of a government in the developing world given the financial situation of the state owned enterprises.³ In the case of Bangladesh, investments are needed both for upstream and downstream segments as the country does not have adequate downstream infrastructure. This paper will answer chronologically the following questions: (a) What is Bangladesh's past experience of financing gas projects? (b) What is the level of financial requirements for Bangladesh to fund its gas development projects? (c) Does the country have the ability to arrange such funds? and (d) How can Bangladesh address the challenges of financing its gas projects?

Historically Bangladesh substantially depended on the two MDBs- the ADB and WB- for financing the gas development projects. The Asian Development Bank (ADB), that proclaims⁴ to be the lead funding agency in the gas sector of Bangladesh, has been involved in the gas sector intermittently over the last 32⁵ years and provided eight loans

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¹ As a general rule of thumb, gas projects are more expensive than oil projects by a factor of five to ten. See M. Shirazi, *An Overview of the Natural Gas Industry and Its Markets*, CEPMLP Seminar Paper, 12th May 2002, University of Dundee, Scotland

² Natural gas transmission and distribution in most developing countries have been viewed as constituting a natural monopoly and treated like the power sector. For this reason, gas transmission and distribution investments have historically been undertaken by state entities. See H. Razavi, *Financing Energy Projects in Emerging Economies*, Oklahoma, USA: PennWell Books 1996, p. 27

³ A. Davison, C. Hurst and R. Mabro (ed.), *Natural gas: Governments and oil companies in the Third World*, (UK, Oxford University Press) 1988, p. 48

⁴ ADB, 2003, *Country Assistance Program Evaluation for Bangladesh*. Manila (CAPE: BAN 2003–2003)

⁵ ADB lending in Bangladesh gas sector begin in 1975 with the Loan No. 255-BAN (SF): Greater Dhaka Gas Distribution, for \$ 12.2 million, approved on 23

totalling \$446 million.⁶ The role of ADB has evolved from provider of funds for individual products to a more proactive one that is more comprehensive, involving technical advice for project preparation (since the 1980s) and policy advice in implementing sector reforms (since the 1990s). ADB has also given 16 technical assistance (TA) grants worth \$4.9 million for improving operational efficiencies, preparing a gas master plan, drafting a gas law, developing a policy on private sector participation (PSP) in gas pipeline construction evaluating options for PSP in the Rashidpur-Ashuganj gas pipeline, and examination of personnel-related issues in the sector. Development of the downstream market in promoting the use of natural gas for the transport sector has also been supported through the Dhaka Clean Fuel Project⁷ funded by the ADB. In the past, ADB implemented the following loan projects; Natural Gas Development Project,⁸ Second Natural Gas Development Project⁹ and Greater Dhaka Gas Distribution Project.¹⁰ All three projects were rated generally successful.

The World Bank entered the gas sector in 1980, and during 1980–1995, provided four¹¹ loans totalling \$344 million. The World Bank

December 1975. See: ADB, 1993, Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grants to the People's Republic of Bangladesh, November 1993

⁶ ADB, 2005, Report and Recommendation of the President to the Board of Directors on the Proposed Loans to the People's Republic of Bangladesh for the Gas Transmission and Development Project, October 2005

⁷ ADB, 2002, Report and Recommendation of the President to the Board of Directors on a Proposed Loan on a Proposed Loan to the Dhaka Clean Fuel Project to the People's Republic of Bangladesh . Manila.

⁸ ADB, 1980, Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Natural Gas Development Project to the People's Republic of Bangladesh. Manila.

⁹ ADB, 1984, Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Second Natural Gas Development. Manila

¹⁰ ADB, 1975, and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance to Greater Dacca Gas Distribution Project. Manila

¹¹ Petroleum Exploration Promotion Project (Credit 1402-BD), approved in 1983; Second Gas Development Credit (Credit 1586-BD), approved in 1985; Gas Infrastructure Development Project (Credit 2720-BD) approved in 1995; Narsingdi-Demra Pipeline Gas Infrastructure Development (Ashuganj-Bakhrabad Pipeline, SCADA, and Development of Rashidpur Gas Field) Project, approved in 1995.

support was extended for developing transmission systems, developing gas fields, and preparing a package for attracting PSP in oil and gas exploration. The WB also supported Petrobangla and the gas sector entities in developing financial management and a management information system. It is currently supporting Petrobangla in preparing a gas sector master plan.¹² Lending by the WB for the whole energy sector shrank dramatically during the 1990s.¹³ Only three new operations have been approved in the last decade, one for gas in 1995, a partial risk guarantee for power generation in 2000, and a rural electrification project in 2002. The WB played both a catalytic as well as direct enabling role in bringing an impressive inflow of foreign direct investment (US\$1.5-2 billion) to the Bangladeshi energy sector.¹⁴

Apart from the World Bank and ADB, the international agencies like OPEC Fund and the UNDP and the bilateral sources like governments of Canada (CIDA), Germany, France, Japan (OECF), the Netherlands, New Zealand, Norway (NORAD) and the United Kingdom (ODA) provided financial assistance to the gas sector of Bangladesh.¹⁵ The gas sector received about \$ 950 million equivalent in external aid from multilateral and bilateral sources during the 1980s.¹⁶ External assistance to the Bangladesh gas sector from different sources from 1993 to 2002 is shown in a table in Appendix.¹⁷

To support Bangladesh's efforts to stimulate interest and attract foreign investment in petroleum exploration in Bangladesh the WB funded the Petroleum Exploration Promotion Project from 1983- 1991.¹⁸ The WB's advice to the government to improve the incentive and

¹² Wood Mackenzie has been selected by Petrobangla and the World Bank to prepare a Gas Sector Master Plan and Strategy for Bangladesh under Contract No. GSMP/PB/2005, under IDA Grant No. H092 BD

¹³ WB, Project Performance Assessment Report, Bangladesh - Energy Sector Adjustment Credit, Report No. 29379, June 21, 2004, pp. 2-3

¹⁴ *Ibid*, p. 8

¹⁵ ADB, 1993, Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grants to the People's Republic of Bangladesh, November 1993, p. 6

¹⁶ *Ibid*.

¹⁷ See Appendix 4: 4 ; External Assistance to the Gas Sector (1993–2002)

¹⁸ World Bank, Project Completion Report, Bangladesh, Petroleum Exploration Promotion Project, World Bank, Asia Regional Office November 1991, p. ii