



New Trans-Afghanistan Gas Pipeline Proposal: Still a Nonstarter

16 July 2002

Regional leaders from Turkmenistan, Afghanistan, and Pakistan met on 8 July to formalize plans for a Trans-Afghanistan gas pipeline that will flow from Turkmenistan's Daulatabad Field to a gas liquefaction facility at the Pakistan port of Gwadar. Continued instability in Afghanistan, combined with very high construction costs and competition from existing liquefied natural gas (LNG) suppliers, will put construction of this \$4-5 billion pipeline out of reach for a decade or more.

- Previous concerns about the difficulties of constructing and maintaining a gas pipeline through Afghanistan are compounded by the high cost of LNG.

Three Countries, Three Sets of Motives

Turkmenistan is seeking further development of its gas resources and an export outlet that can free it from dependence on the Russian gas pipeline system, which now limits Turkmen gas export sales to Ukraine and other poor-paying customers in the former Soviet Union, according to press reporting.

An Old Proposal, With a New Twist

Turkmen, Afghan, and Pakistani leaders are moving ahead on their 30 May agreement to begin a feasibility study on the 1,500-kilometer pipeline to ship gas from the Daulatabad field via Afghanistan to Gwadar. From there the gas would be exported as LNG, according to press reporting. A second phase could include an additional gas pipeline to export to India.

- The proposed pipeline is over 1,000 kilometers shorter than the distance Daulatabad gas would have to go if Russia were ever to give Ashgabat access to European gas markets.

- This is a modification of an earlier plan by Unocal to build a pipeline to link into Pakistan's gas pipeline system, with a separate pipeline to India (see map).
- The new plan avoids the political difficulties of accessing the large India gas market via Pakistan, but this project is more expensive than the previous initiative due to its greater length and the need to build an LNG terminal.

Afghanistan would benefit from transit fees on the order of \$100-300 million per year, millions of dollars in one-time regional development outlays, plus continued employment and maintenance outlays, based on press and industry discussions of the earlier proposal.

- Afghanistan also would have the right to purchase some of the gas for its own use under the new agreement.

Initial press reporting discussed annual shipments of up to 30 billion cubic meters (bcm), although the tripartite agreement does not specify the amounts.

APPROVED FOR RELEASE
DATE: JUL 2004

- Most industry press reporting deems the proposal not financially viable and very unlikely to attract international investment.

This report was prepared by the Office of Transnational Issues. Comments and queries are welcome and may be directed to the Chief, OTI, on

Proposed Trans-Afghanistan Gas Pipelines



- - -	Newly proposed gas pipeline	●	Oilfield
- - - - -	Previously proposed gas pipeline with extension to India	●	Gas and condensate field
—	Existing gas pipeline	●	Oil, gas, and condensate field
—	Existing oil pipeline	⚙️	Oil refinery
—	Existing refined products pipeline	⚙️	Gas processing plant
—	Existing LPG pipeline	⚓	Oil port
—		⚓	Proposed LNG terminal

The proposed trans-Afghanistan pipeline routes are based on general routes and endpoints discussed in oil industry press.

DI Cartography Center/MPG 760372AI (C00261) 7-02

Kabul May Hope for Gas Exports [redacted]

Kabul may be hoping to eventually use the pipeline as a low-cost outlet to export some of its own gas reserves. Development of oil is far less likely. Gas production peaked at nearly 8 bcm in the 1970s, and oil production has been limited to a few 100 barrels/day, according to international energy statistics.



- [redacted] a 1995 USGS study of Afghanistan's geology, which also assessed Afghanistan's ultimately recoverable resources at 300 million barrels of oil, 272 bcm of gas, and 145 million barrels of condensate.
- The level of proved reserves is small, and the ultimately recoverable resources will take many years to explore and develop. The USGS assessment did not include an evaluation of their commercial viability. By way of comparison, US proved reserves are about 30 billion barrels of oil and condensate and 4.7 trillion cubic meters of gas, according to industry statistics.

Pakistan also would benefit from annual transit fees and from increased employment for pipeline construction and port modernization.

- In addition, Islamabad will have the right, according to the agreement, to purchase some of the gas to cover regional shortfalls or to export its own gas, if there is a surplus.
- Pakistan is self-sufficient in gas, and recent discoveries have extended its expected self-sufficiency for at least the next 15 years, according

to industry press, but Pakistan could purchase gas after that, if future prospects do not meet expectations. [redacted]

High-Cost Gas [redacted]

Many recent press reports of the Turkmenistan-Afghanistan-Pakistan agreement have focused only on pipeline construction, citing costs of about \$2 billion. This was the publicly discussed cost of the Unocal-proposed pipeline link to Pakistan's gas pipeline network. The current plan will cost far more.

- The pipeline to Gwadar is about 200 miles longer than the earlier proposed link into the existing Pakistani gas pipeline grid, but more importantly, unlike the previous proposal, the new plan requires the construction of LNG liquefaction facilities in Gwadar, as well as modernization and deepening of the port.
- LNG facilities are very capital intensive. The gas liquefaction facilities for 10 bcm/year of gas from Indonesia's Tangguh field, for example, are expected to cost \$2 billion, according to industry press reports.
- Earlier security concerns about pipelines through Afghanistan also continue to trouble investors, according to press reporting. [redacted]

Intensive Market Competition Ahead [redacted]

All of these factors will make it extremely difficult for this gas to enter the highly competitive Asian LNG market. Established producers, including Australia, Indonesia, Malaysia, Brunei, Oman, and Qatar are already actively vying for places in the limited market, with more LNG facilities under construction. These exporters are generally exploiting large offshore or coastal gas fields with on-site LNG facilities; no major pipelines are necessary.

- Projects that are now under way in Iran, Indonesia, Malaysia, Australia, East Timor, and Qatar to

supply the Asian LNG market, could produce as much as 47 bcm of LNG by the end of the decade, [redacted]

- An 8.8-bcm LNG project in Yemen, requiring a pipeline 1100 kilometers shorter than the Daulatabad-Gwadar line and planned since the mid-1990s, is floundering due to the inability to find LNG buyers, according to industry press; US participants are pulling out.
- As of mid-2002, there was over 11 bcm of idle LNG production capacity in the Middle East and Pacific region, according to industry press reporting. [redacted]

No Pipeline Without Foreign Aid [redacted]

The addition of an LNG plant more than doubles the cost of the earlier pipeline project, from about \$2 billion to \$4-5 billion, based on discussions of other LNG facility costs in the industry press. The project is not competitive with the other LNG projects in the region, when the pipeline and LNG plant costs are combined.

- No commercial energy company will undertake the financing of such an expensive and risky project; and the countries themselves cannot afford to build an LNG plant without assistance.
- Afghanistan, Pakistan, and Turkmenistan are counting on funding from the World Bank and other donors, according to press reporting and the project will only be built if billions of dollars in grants are made available. [redacted]