# Pipelines : Iran listens for pipes of peace.

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Tehran is hoping that its energy customers' need for oil and gas will override adverse circumstances - prices and politics are stalling progress, reports James Gavin.

As far as Iran's aspirations to become a significant gas exporter are concerned, 2007 started inauspiciously. Blaming exceptionally cold weather, the government had to apologise to neighbouring Turkey for peremptorily curtailing piped gas exports for four days in early January.

Iranian gas supplies to Turkey, the only country to which Iran exports at present, have fluctuated in recent months and fell to just 7m cubic metres a day (cm/d) in December - well below the contracted rate of 24m cm/d. If the Islamic Republic is finding it difficult to keep up supplies to a long-standing customer such as Turkey, then what chance would it have of meeting other export commitments? That question has been thrown into sharp relief by the inclement political climate; the US government has adopted an increasingly aggressive tone towards Tehran in recent months.

It is little surprise that plans for a 2,700 km, 150m cm/d overland pipeline to India, traversing Pakistan, are not proceeding smoothly. The scheme has faced two serious political obstacles: first, India is uncomfortable about the prospect of Pakistan, as a transit country, being granted control over its gas supply.

Second, the US government, turning the political screws on Iran over its alleged uranium-enrichment programme, has also taken against the Iran-Pakistan-India gas pipeline scheme. In March 2006, President George Bush offered India access to civilian nuclear-power technology as an inducement to drop the pipeline scheme.

The political tide in India has also turned against the plan to import Iranian gas, with the former oil minister, Mani Shankar Aiyar - the foremost proponent of the pipeline - removed from office just before Bush's visit. An alternative, a 2,000 km offshore scheme that would avoid Pakistani territory, has faced considerable technical obstacles, given that water depths are up to 3,000 metres.

Disagreements over pricing have also presented an obstacle. In August, Iran offered India a price linked to Dated Brent crude that equated to about $8/m Btu. But India was prepared to go only as high as $4.25/m Btu.

Iranian officials have become increasingly impatient with the lack of progress in recent months. A new round of talks is planned between Indian and Iranian officials, but Tehran is not optimistic. The Iranian government has asked UK consultants Gaffney Cline to devise a pricing mechanism for the project, but India and Pakistan have said they will not accept the price that the consultancy puts forward, according to Ali Arrehchi, an oil and gas analyst at Atieh Bahar, a Tehran-based consultancy.

Iran is now threatening to abandon talks and use the gas allocated for the India pipeline project for a liquefied natural gas (LNG) export plant, or even for domestic consumption. But given India's urgent need for Iranian gas, this might force New Delhi to compromise on price.

These setbacks have not reduced Iran's interest in gas-export schemes. The government has looked on enviously as Qatar and Oman have won large shares of the east Asian gas market by developing their LNG industries. However, while it would like to emulate their success, Iran's inability to use US-made liquefaction technology or to work with US contractors is hampering its ability to roll out LNG export projects - under the unilateral US sanctions, US companies are unable to work or invest in the country.

Plenty of plans, no success

While Iran's LNG plans have gone nowhere, it has also had very limited success with gas-export pipelines. The most advanced proposal is a 140 km link to neighbouring Armenia, which will pump just over 1m cm/y of Iranian gas from March, potentially rising to 5m cm/y. But if Iran had any ambitions to use Armenia as a staging post for forward exports to other countries, it has suffered a significant setback: Gazprom, the Russian state-owned gas monopoly, has gained control of the onward transmission system (PE 1/07 p4).

Other pipeline schemes have failed to make progress. The companies hoping to develop the Nabucco route - from Turkey to Austria - which envisages drawing Central Asian and Middle East gas to Europe, have identified Iran as an important potential supplier. In 2004, OMV, the Austrian oil and gas company, signed a memorandum of understanding (MOU) with National Iranian Gas Export Company for the supply of up to 25bn cm/y of gas to Europe through the proposed Nabucco pipeline. But participating in this project appears to be beyond Iran's immediate capabilities.

Three possibilities for Iranian exports to Europe are being discussed. These include: using the existing pipeline from the northwestern city of Tabriz to Turkey; constructing a parallel pipeline to Tabriz-Turkey route; or building an entirely new pipeline based on reserves that are dedicated to the European market.

However, Iran itself appears uncertain that it will be able to meet that commitment. In July, the deputy oil minister, Mohammad Hadi Nejad-Husseinian, said that if the Iran-Pakistan-India gas pipeline became operational, there would be no gas for export to western Europe. In addition, the recent interruption in Iranian supplies to Turkey, the proposed gateway for the Nabucco scheme, makes Iran appear unreliable.

Plans for pipelines to Kuwait and the United Arab Emirates (UAE) have also stalled, despite both projects, which would involve piping gas through shallow waters close to existing production facilities, being comparatively straightforward.

In March 2005, Iran and Kuwait signed an MOU for gas deliveries, reaching 8.5m cm/d for 25 years starting this year. However, Kuwait's recent gas discoveries have reduced the country's appetite for Iranian imports (PE 12/06 p44); additionally, Kuwait, which has close ties to the US, is under pressure not to strike deals with Iran.

A plan to supply the UAE with gas has also encountered problems. The UAE's Crescent Petroleum signed an MOU with Iran in 2001 to import 14.2m cm/d of gas by pipeline, but failed to agree a price. Six years on, the two sides are still bickering. In December, the Iranian oil minister, Kazem Vaziri Hamaneh, said his country would not export gas to the UAE unless their proposed price was increased.

## Embryonic schemes

There is also talk of gas exports to Oman and Bahrain, but these schemes are embryonic and may well be derailed by the same obstacle - price.

Tehran must also develop its own domestic Iranian Gas Trunkline Network (Igat) in order to service the local market, which is growing by 10% a year, and make various export schemes possible. The Igat system consists of a series of pipeline links (see Table 1). Outside Igat, a new 1,500 km pipeline link will send ethylene petrochemicals produced at Assaluyeh and Bandar Abbas to the far north of the country from 2007.

In June 2006, Khatam-ol-Anbia, the engineering unit of the Islamic Revolutionary Guard was awarded a contract to build the Igat-7 link, taking gas from Assaluyeh to Iranshahr and onward to Pakistan, using gas from Phases 9 and 10 of the South Pars project. Ultimately, this would service the Iran-Pakistan-India pipeline if it comes to fruition.

However, the only realistic new gas-export schemes in the near future are the pipeline projects to Armenia and Azerbaijan. The Armenia route should be operational next month and bilateral talks with Azerbaijan appear to be making progress - Baku recently said it has accepted Iran's price for gas supply.