



Iran's Potential Gas Export after the removal of Sanctions

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**Commission of Environment and Energy,
International Chamber of Commerce
(Iran Committee)**

IENE Conference

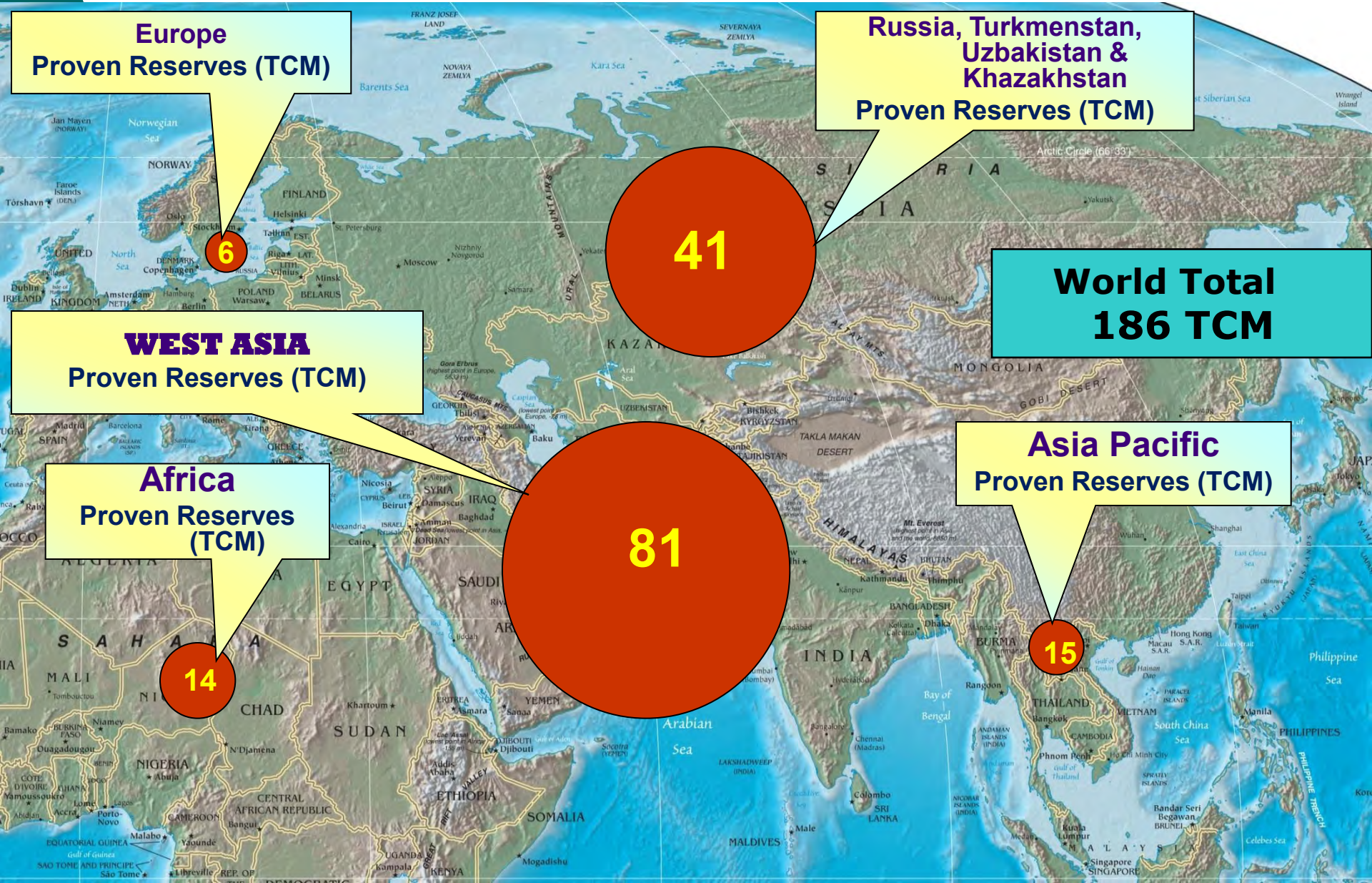
**March 12th 2015
Vienna**

WEST ASIA



Natural Gas Reserves

Source: BP Statistical review of World Energy 2014 (figures in Trillion Cubic Meters)



West Asian Region Gas Reserves end of 2013

Source: BP Review of world Energy Statistics June 2014)

| | Gas Reserves (Trillion Cubic Meters) | Per cent of the World | Per cent of West Asia |
|------------------------|---|----------------------------------|----------------------------------|
| Azerbaijan | 0.9 | 0.5 | 1.1 |
| Iran | 33.8 | 18.2 | 41.6 |
| Iraq | 3.6 | 1.9 | 4.4 |
| Kuwait | 1.8 | 1.0 | 2.2 |
| Oman | 0.9 | 0.5 | 1.1 |
| Qatar | 24.7 | 13.3 | 30.4 |
| Saudi Arabia | 8.2 | 4.4 | 10.1 |
| Syria | 0.3 | 0.2 | 0.4 |
| UAE | 6.1 | 3.3 | 7.5 |
| Yemen | 0.5 | 0.3 | 0.6 |
| Others | 0.4 | 0.2 | 0.5 |
| West Asia Total | 81.2 | 43.7 | |
| World Total | 185.7 | | |

West Asian Region Gas Production (2013)

(Source: BP Review of world Energy Statistics June 2014)

| | Gas Production Billion Cubic Meters | Per cent of the World | Per cent of West Asia |
|--------------------|--|----------------------------------|----------------------------------|
| ○ | | | |
| Azerbaijan | 16.2 | 0.5 | 2.8 |
| Bahrain | 15.8 | 0.5 | 2.7 |
| Iran | 166.6 | 5.0 | 28.5 |
| Iraq | 0.6 | - | 0.1 |
| Kuwait | 15.6 | 0.4 | 2.7 |
| Oman | 30.9 | 0.9 | 5.3 |
| Qatar | 158.5 | 4.7 | 27.1 |
| Saudi Arabia | 103.0 | 3.0 | 17.6 |
| Syria | 4.5 | 0.1 | 0.1 |
| UAE | 56.0 | 1.7 | 9.6 |
| Yemen | 10.3 | 0.3 | 1.8 |
| Others | 6.5 | 0.2 | 1.1 |
| West Asia | 584.4 | 17.5 | |
| World Total | 3347.6 | | |

West Asian Region Gas consumption (2013)

(Source: BP Review of world Energy Statistics June 2014)

| | Gas consumption Billion Cubic meters | Per cent of the World | Per cent of West Asia |
|------------------------|---|----------------------------------|----------------------------------|
| ○ Azerbaijan | 8.6 | 0.3 | 1.8 |
| ○ Iran | 162.2 | 4.8 | 33.6 |
| ○ Kuwait | 17.8 | 0.5 | 3.7 |
| Qatar | 25.9 | 0.8 | 5.3 |
| Saudi Arabia | 103.0 | 3.1 | 21.3 |
| Turkey | 45.6 | 1.4 | 9.4 |
| UAE | 68.3 | 2.0 | 14.1 |
| Others | 51.2 | 1.5 | 10.6 |
| West Asia Total | 482.6 | 14.4 | |
| World Total | 3347.6 | | |

Iran's Position in the Gas Reserves, Production and Consumption in West Asia

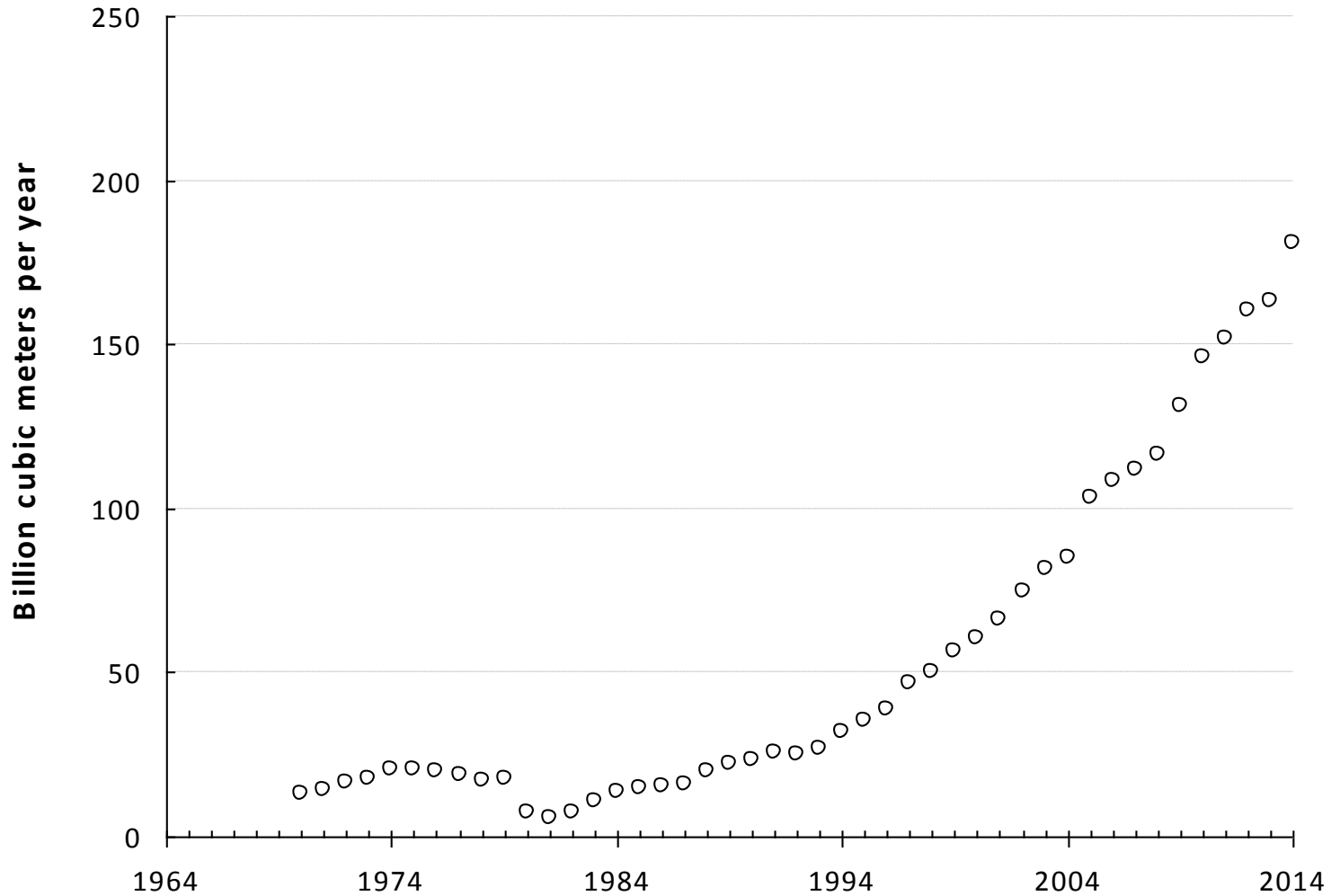
| | Percentage West Asia | Percentage World |
|--------------------|-------------------------|---------------------|
| GAS | | |
| Reserves | 41.6 | 18.2 |
| Production | 28.5 | 5.0 |
| Consumption | 33.6 | 4.8 |

US with 5% of the world gas reserves Produces 20.6% of the world gas

Iran with 18.2% of the world reserves produces 4.9% of the world gas

GAS PRODUCTION IN IRAN 1970 TO 2014

Iran Gas Production (1970-2014)



**PRESENT INTERNATIONAL GAS AGREEMENT
IN BILLION CUBIC METERS PER YEAR
(SOURCE NIGC)**

| | | | Type of the Agreement | Amount |
|--|--|--|--|---------------|
| | | | Gas Export to Turkey | 10 |
| | | | Import from Turkmenistan | 14 |
| | | | Gas Import from Azerbaijan (Swap) | 0.4 |
| | | | Gas Export to Nakhjavan (Swap) | 0,35 |
| | | | Gas Import from Azerbaijan | 1 |
| | | | Gas Export to Armenia | 3 |
| | | | Gas Export to Pakistan (starting from 2016) ` | 7 |
| | | | Gas Export to Iraq (starting from 2015) | 9 |

VISION OF IRAN GAS INDUSTRY IN 2025

- **To remain the third largest gas producer in the world with gas production of 360 billion cubic meters per year by 2025**
- **To Inject gas into the oil fields in order to maintain and increase oil production**
- **To Supply Gas to Power Stations, Gas Based industries and Petrochemicals**
- **To Replace domestic demand for petroleum products with gas and maintain the share of gas in Iran's energy basket above 70 percent.**
- **To Export Gas to the regional countries, Indian subcontinent and Europe**
- **This vision requires capital investment of around \$160 billion from local and international sources**

Iran's Potential Energy Future

- Iran can find its true place amongst the World Energy Producers & Consumers and have a Robust Economy if it can find solution to the following Five major issues;
- **1- Resolving the nuclear dispute with 5+1 to ensure that sanctions are removed.**
The current negotiations has entered its final stage and it is important for all parties. The outcome will change the Political and Economic developments in West Asia

Iran's Potential Energy Future (Cont.)

- **2- Utilize Energy more Efficiently**
Iran can save equivalent of 1.3 mb/d of energy if appropriate measures are used. Gas flaring alone is around 14 bcm/year which is more than the gap between gas production and consumption in SE Europe (excluding Turkey) which is 12.2 bcm/y. Energy Efficiency will be the key factor in Iran's future energy export potential
- **3- Find a solution for the removal of Energy Subsidies.**

Iran's Potential Energy Future (Cont.)

- **4- Find a right Formula for the Long-Term Price of Gas to enable Gas Based Industries to take shape**
- **5- Allow investment in Upstream Oil and Gas by Private Energy Companies (Domestic and Foreign) to ensure speedy and efficient Resource Development**
- **Iran Petroleum Contract (IPC) is the New Format of Contract for future. It has removed all shortcomings of Buy- Back Contracts.**



IGAT 7

Asaluyeh

Iranshahr

Khuzdar

Karachi

Multan

New Delhi

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

South Pars gas field

TURKEY

SYRIA

IRAQ

SAUDI ARABIA

IRAN

AFGHANISTAN

PAKISTAN

CHINA

INDIA



To Europe

TURKEY

SYRIA

IRAQ

SAUDI ARABIA

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

IGAT 9

IRAN

Ahwaz

IGAT 7

South Pars gas field

AFGHANISTAN

PAKISTAN

CHINA

INDIA



To Europe

To Europe

TURKEY

SYRIA

IRAQ

IGAT 6

Ahwaz

SAUDI ARABIA

IRAN

IGAT 7

AFGHANISTAN

PAKISTAN

INDIA

CHINA

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

South Pars gas field



To Europe

TURKEY

SYRIA

IRAQ

IGAT 6

SAUDI ARABIA

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

Rasht

Gorgan

Sarakhs

IRAN

AFGHANISTAN

PAKISTAN

South Pars gas field

IGAT 7

INDIA

CHINA





To Europe

To Europe

Bazargan

Astara

IGAT 9

IGAT 6

IGAT 7

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

South Pars gas field

TURKEY

SYRIA

IRAQ

IRAN

AFGHANISTAN

PAKISTAN

SAUDI ARABIA

INDIA

CHINA



Persian Gas Pipeline

Sarakhs - Rasht Gas Pipeline

TAPI Gas Pipeline

Turkmenistan - China Gas Pipeline

To Europe

To Xinjiang province CHINA

To Europe

Islamic Gas Pipeline

Dolphin Gas Pipeline

Sarakhs - Jask Gas Pipeline

IPI Gas Pipeline

TURKEY

SYRIA

IRAQ

SAUDI ARABIA

Tengiz gas field

Shah Deniz gas field

Dauletabad gas field

South Pars gas field

IRAN

AFGHANISTAN

PAKISTAN

CHINA

INDIA

Asian Gas Network a Win-Win Scenario for all

- **AGN's is an Economic and Geographical Reality as East Asia is short of gas and West Asia is Gas rich.**
- **Some countries need their gas in Winter and AGN could give them that option**
- **AGN infrastructure is partly in existence.**
- **Multilateral gas deal with Europe and Indian Subcontinent is possible with the Development of Asian Gas Network.**



From Azerbaijan

To Turkey And Europe

From Turkmenistan

Cooperation for Gas Export Amongst the West Asian States of the Persian Gulf and Caspian Region

Gas Suppliers
Azerbaijan, Iran, Qatar and Turkmenistan

Gas Takers
Turkey, Europe, Indian Subcontinent, China, Japan, Kuwait, and UAE

From Qatar

LNG Export to East Asia & Europe

To Indian Subcontinent



Thank You

West Asian Region Oil Reserves (2013)

(Source: BP Review of world Energy Statistics June 2014)

| | Oil Reserves (billion barrels) | Per cent of the World | Per cent of West Asia |
|--------------------|---|----------------------------------|----------------------------------|
| ○ | | | |
| Azerbaijan | 7.0 | 0.4 | 0.9 |
| Iran | 157.0 | 9.4 | 19.2 |
| Iraq | 150.0 | 9.0 | 18.4 |
| Kuwait | 101.5 | 6.1 | 12.4 |
| Oman | 5.5 | 0.3 | 0.7 |
| Qatar | 25.1 | 1.5 | 3.1 |
| Saudi Arabia | 265.9 | 15.9 | 32.6 |
| Syria | 2.5 | 0.1 | 0.3 |
| UAE | 97.8 | 5.9 | 12.0 |
| Yemen | 3.0 | 0.2 | 3.7 |
| Others | 0.3 | - | 0.1 |
| West Asia | 815.3 | 48.3 | |
| World Total | 1687.9 | | |

West Asian Region Oil Production (2013)

(Source: BP Review of world Energy Statistics June 2014)

| Oil Production (million barrels per day) | Per cent of the World | Per cent of West Asia | |
|---|----------------------------------|----------------------------------|-------------|
| Azerbaijan | 0.93 | 1.1 | 3.2 |
| Iran | 3.56 | 4.1 | 12.2 |
| Iraq | 3.14 | 3.6 | 10.7 |
| Kuwait | 3.13 | 3.6 | 10.7 |
| Oman | 0.94 | 1.1 | 3.2 |
| Qatar | 1.99 | 2.3 | 6.8 |
| Saudi Arabia | 11.52 | 13.3 | 39.3 |
| Syria | 0.06 | 0.2 | 0.2 |
| UAE | 3.65 | 4.2 | 12.5 |
| Yemen | 0.16 | 0.2 | 0.5 |
| Others | 0.21 | 0.2 | 0.7 |
| West Asia | 29.29 | 33.9 | 100 |
| World Total | 86.81 | | |

West Asian Region Oil consumption (2013)

(Source: BP Review of world Energy Statistics June 2014)

| | Oil consumption million barrels per day | Per cent of the World | Per cent of West Asia |
|--------------------|--|----------------------------------|----------------------------------|
| Azerbaijan | 0.10 | 0.1 | 1.1 |
| Iran | 2.00 | 2.2 | 21.4 |
| Kuwait | 0.49 | 0.5 | 5.2 |
| Qatar | 0.28 | 0.2 | 3.0 |
| Saudi Arabia | 3.08 | 3.2 | 33.0 |
| Turkey | 0.71 | 0.8 | 7.6 |
| UAE | 0.77 | 0.9 | 8.2 |
| Others | 1.91 | 2.2 | 20.5 |
| West Asia | 9.34 | 10.1 | 100 |
| World Total | 91.33 | | |