



Islamic Republic of Iran
Petroleum Ministry

Globalization & Future Gas Market

IRAN-EU Interdependence; Requirement & Cooperation

IEF-IGU

**First Ministerial Gas Forum
NOVEMBER 2008**

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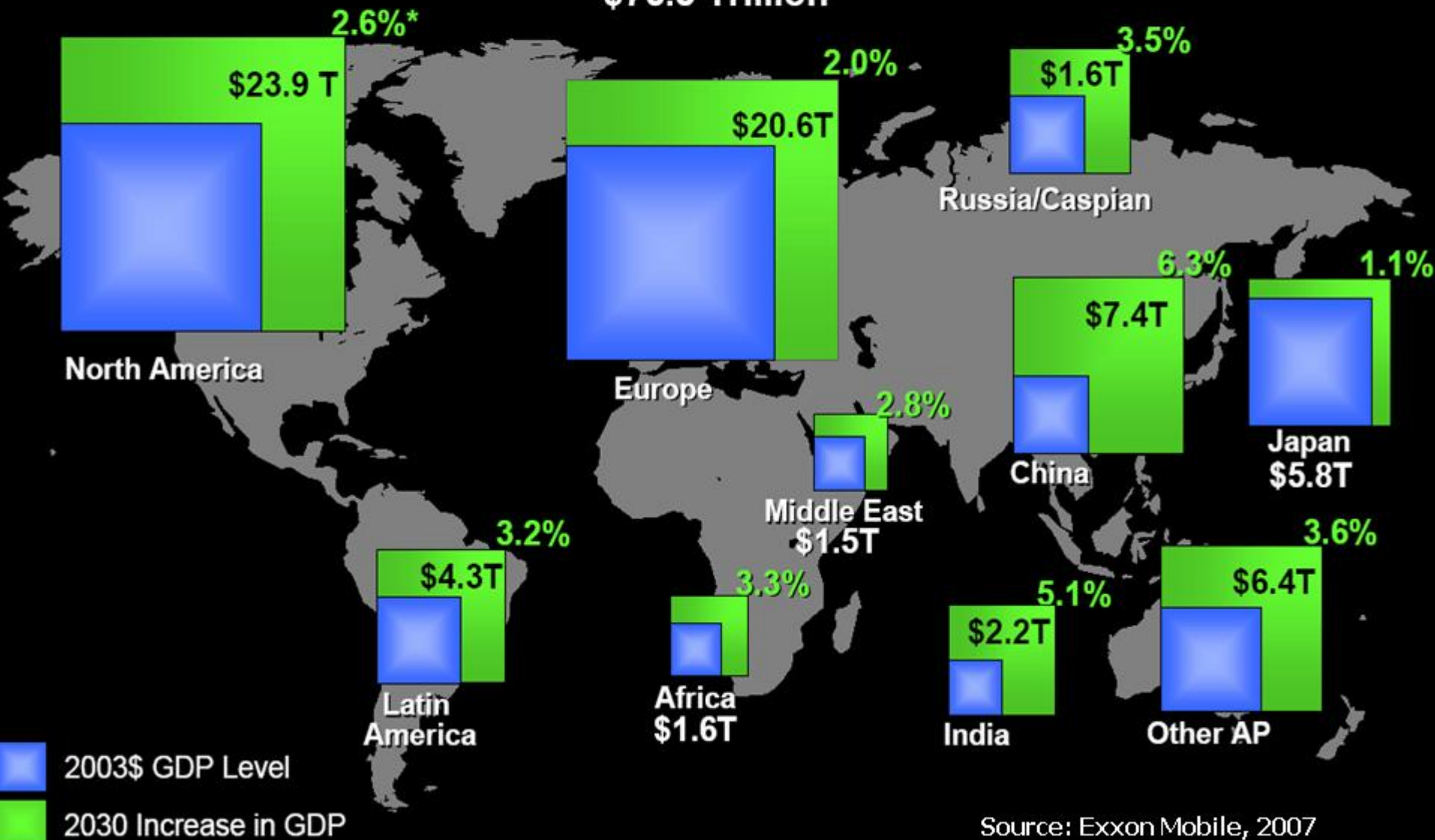
Deputy Ministry of Petroleum

Future Outlook: The Energy Interdependency

- A future is emerging in which energy demand and supply issues will make regions of the world much more dependent upon each other for their welfare and security.
- Energy-consuming countries need ever-growing quantities of energy from abroad.
- Energy-producing countries need more amounts of foreign capital & technology to develop the facilities necessary to extract more resources and reduce domestic energy intensity.
- Meanwhile, both sets of countries must build and maintain huge amounts of infrastructure to generate, transport, and deliver energy to their citizens and industries.
- Under these circumstances, the actions of consuming countries could affect the ability of producing countries to achieve their goals, and vice versa.

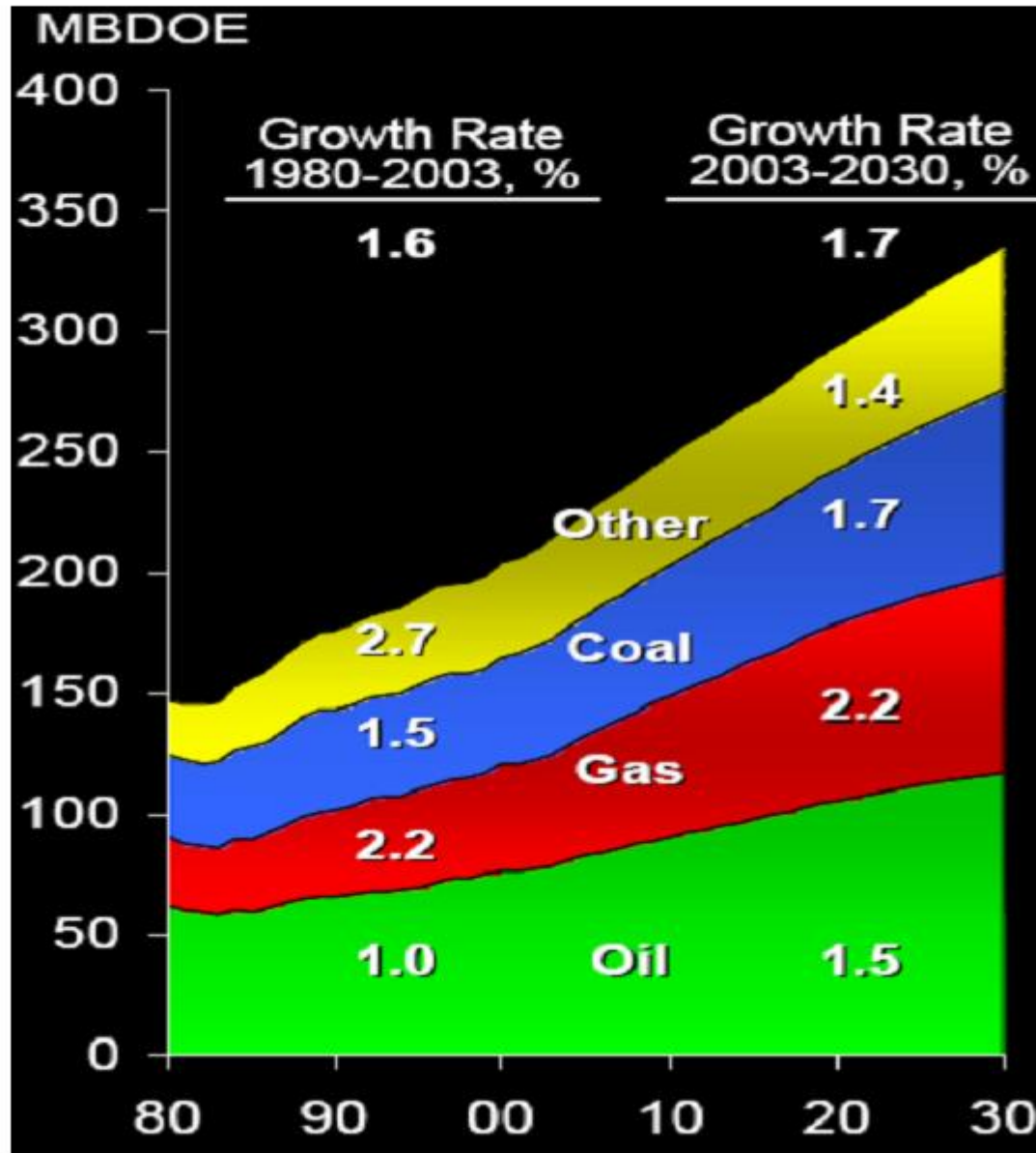
World GDP Outlook in 2030

2030 World GDP
\$76.5 Trillion

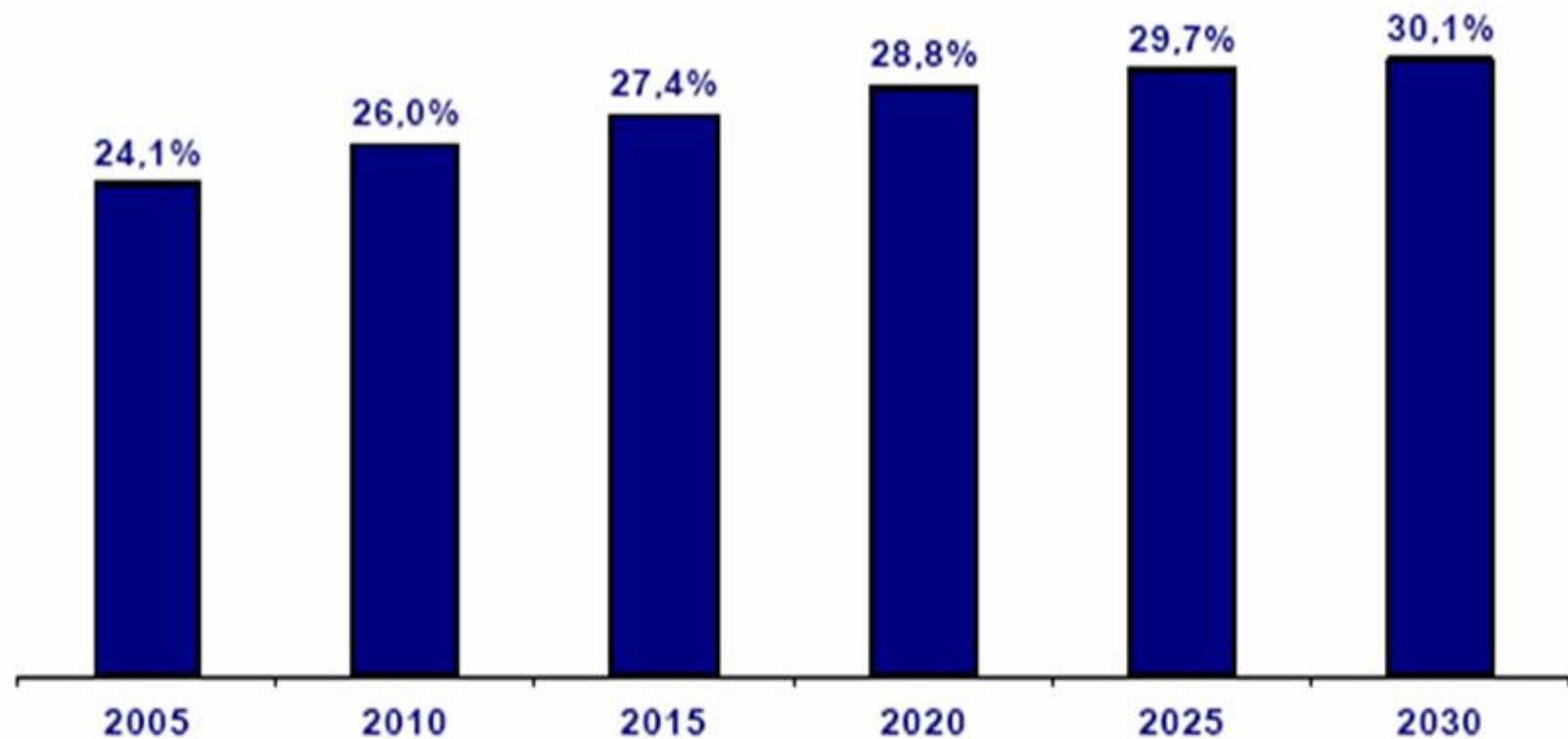


Source: Exxon Mobile, 2007

World Growing Demand for Energy

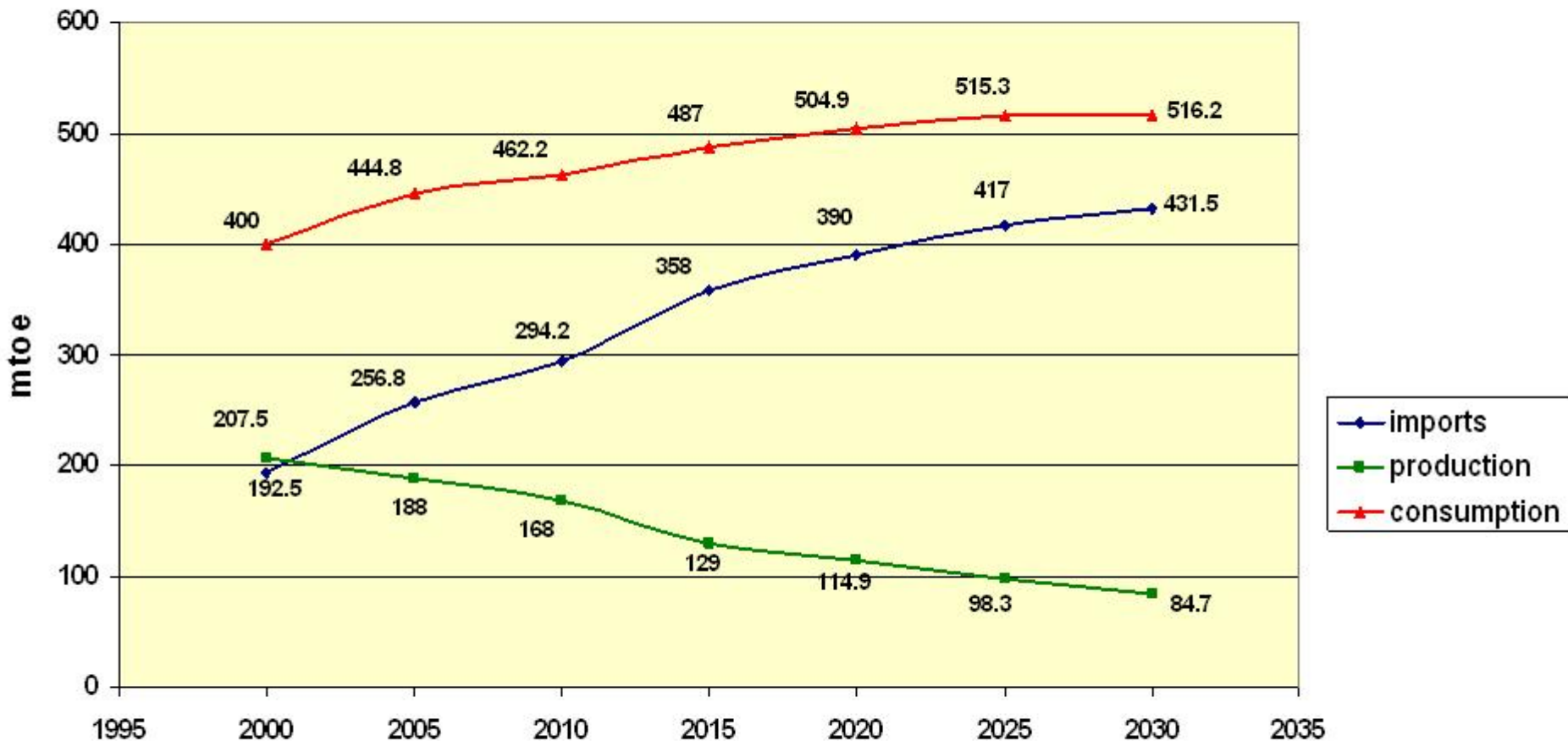


Share of Gas in the EU's Energy Consumption



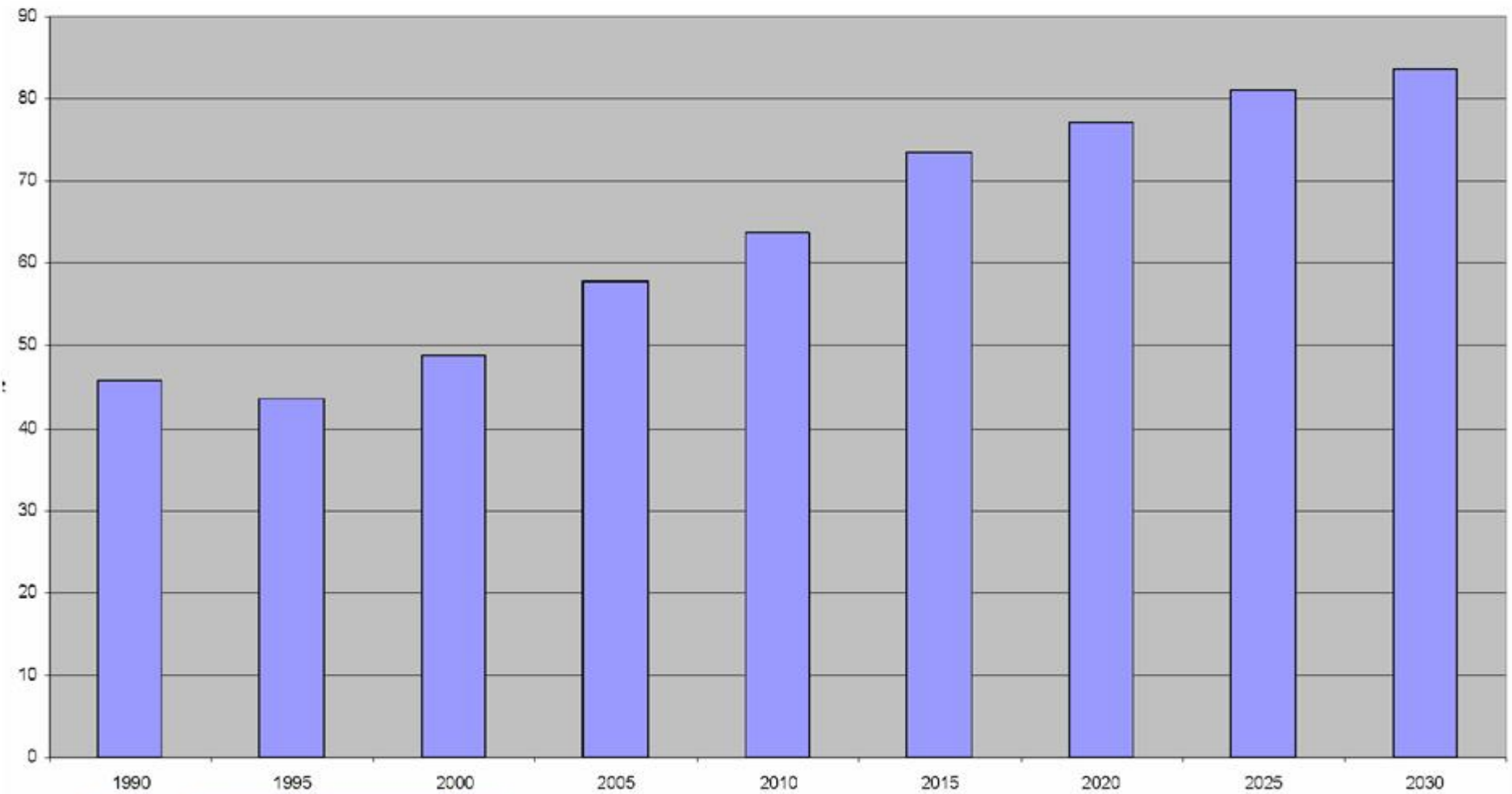
Source: European Commission, 2007

The Forecast of EU's Natural gas import, Production and Consumption



Source: European Commission 2008

EU's Natural Gas Import Needs (%)



Source : European Commission 2008

Iran's Needs for Energy Investment (20yr Plan)

(In Billion USD)	4 th Plan (2005-2009)	5 th Plan (2010-2014)	6 th Plan (2015-2019)	7 th Plan (2020-2025)	Total (2005-2025)
Oil Sector	58.78	39.05	23.42	19.88	141.13
Gas Sector	50.84	93.61	84.08	81.87	310.4
Electricity	13.4	19.5	26.8	36.9	96.6
Nuclear Power	0.6	3.5	4	4.3	12.4
Renewable Energy	0.2	1	1	0.8	3
Energy demand management	2	5	4.5	3.5	15
Total Energy	125.82	161.66	143.8	147.25	578.53

- Gas industry Required Investment in 20yr Plan is 310 Billion USD.

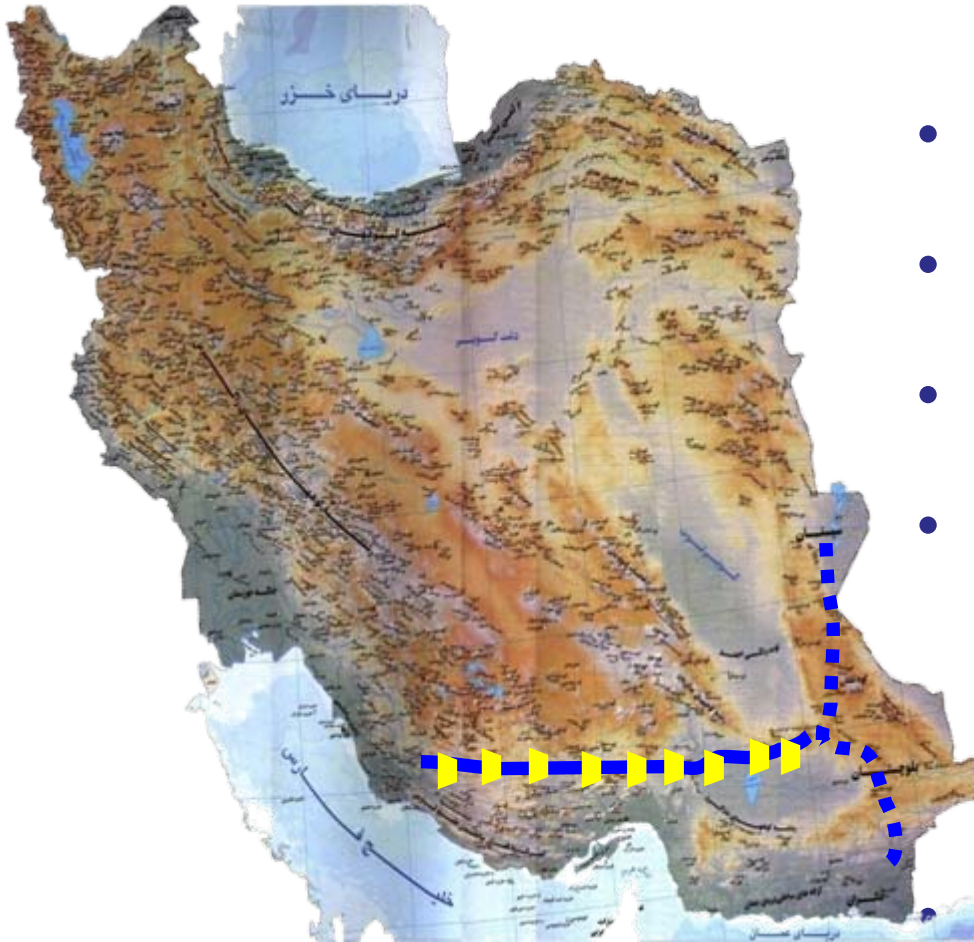
Iran's Gas Production and Export Target for Next Ten Years

- Having 28.13 tcm natural gas reserves, Iran ranks 2nd country in the world.
- Now , Iran is the 4th largest gas producer in the world.
- Reaching production rate of 505.8 mcm/d in 2007 is a great achievement which has fulfilled, despite politically motivated pressures and sanctions.
- According to Petroleum Ministry plan for next ten years. Iran projected natural gas production reaches to 1300 mcm/d.
- Iran's total export capacity by pipeline for next ten years would be 220 mcm/d .
- Iran's total export capacity of LNG would reach to 66 mt /y.

Iran's potential Gas Export Market

- Iran has been negotiating and concluding gas co-operations with the neighboring countries.
- There are two gas export route by pipeline from Iran to potential markets.
- These two export pipelines transmit South Pars gas without any connection with internal network to the Turkish border (IGAT 9) and to the Pakistan border (IGAT 7).

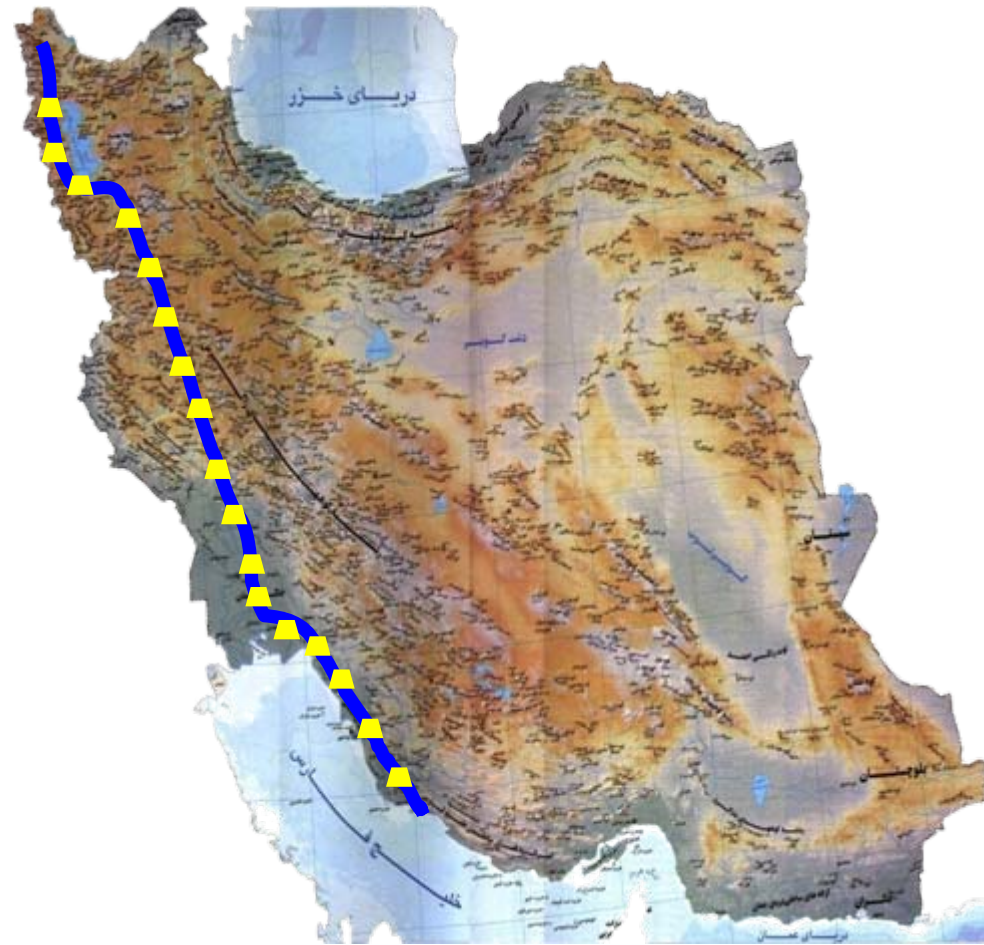
IGAT 7



- *Length* 902 km
- *Diameter* 56 inches
- *Capacity* 110 MMCM/D
- *Investment* 2 billions USD
- *Compressor St.* 2
- *Commencement date* 2009



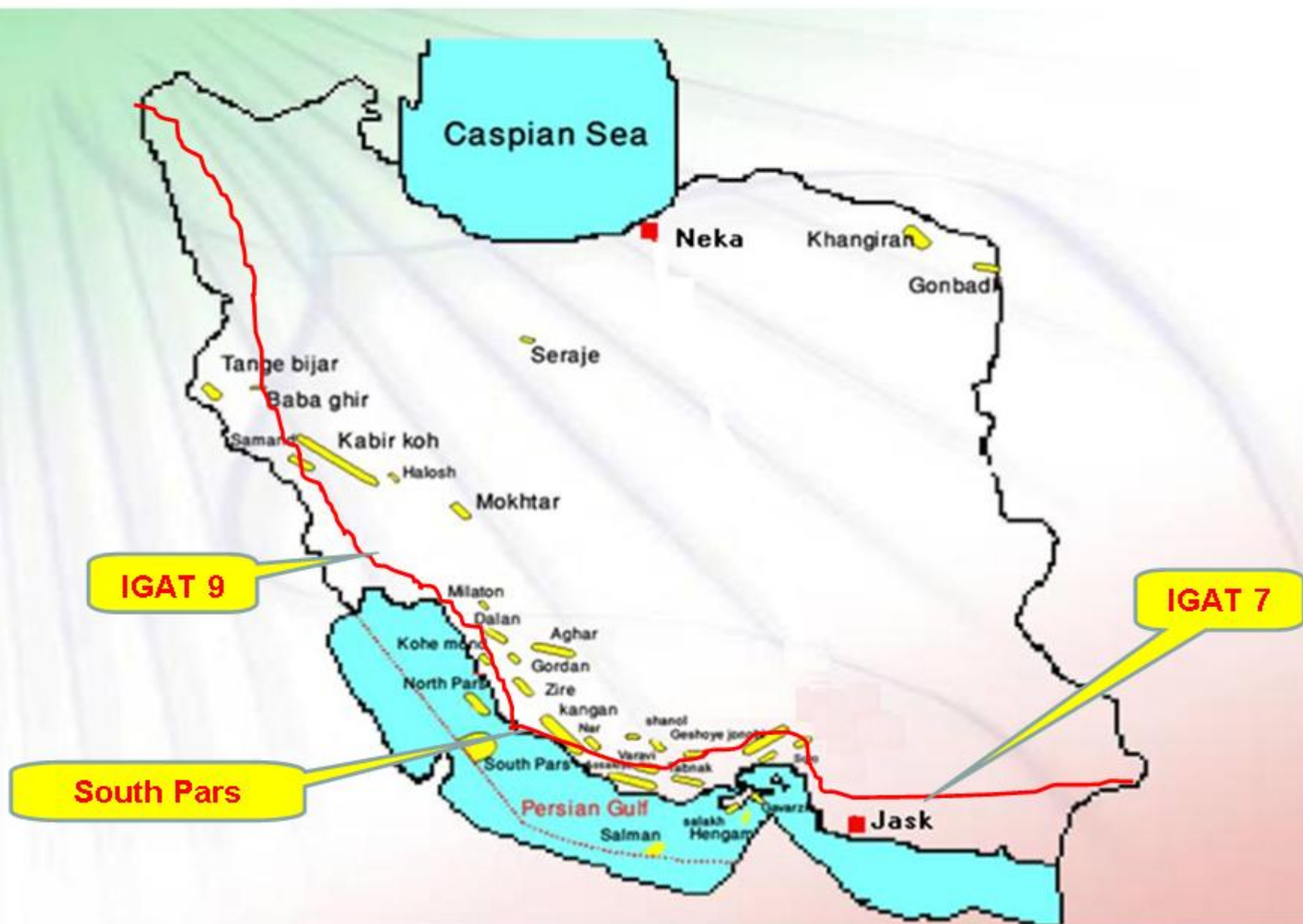
IGAT 9



- *Length* **1860 km**
- *Diameter* **56 inches'**
- *Capacity* **110**
MMCM/D
(first stage)
- *Investment* **8 billions**
USD
- *Compressor St.* **17**
- *Commencement date* **2014**



Iran's Internal Gas Export Pipelines Map



Iran's Gas Export Pipelines

1- IPIC

This pipeline launches from Iran-Pakistan border at the end of IGAT7 and would be prolonged to Eastern market (Pakistan, India & China).

2-Persian Gas Pipeline

Persian pipeline launches from the end of IGAT9 and is designed to export gas from Iran-Turkey border to Europe.

The recently inked MOU with Turkey to transit gas through its territory is first part of this project.

Persian Gas Pipeline



Review of EU Gas Decision Making History

- If we look the recent history, European countries were also under pressure by US administration not to build a gas pipeline from former Soviet Union.
- however European countries were smart enough to do what their interests dictated. Today's situation is no different from that time. European countries based on their long term interests should make their own decisions according to their best interest.

IRAN-EU

Interdependence, Requirement & Cooperation

- According to the programs mentioned before, Iran can play a prominent role in meeting the EU's future rising demand for natural gas.
- Persian Pipeline plays an important role in security of energy supply for the EU
- Europe can benefit from secure supplies and Iran benefits from financing & technological cooperation.

Conclusion

- EU's natural gas import dependency would increase to 84% in 2030.
- IRAN's gas upstream & downstream required investment is more than 300 \$bn (20yr Plan).
- Iran could be second global gas exporter.
- Iran-EU interdependence can lead to a positive partnership and a win-win strategy.



Thank You

For Your Attention