

IRAN'S ENERGY FUTURE AND EUROPE

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INTRODUCTION

- Trade of energy is no longer trade of commodity, it is energy diplomacy, securing of supply and demand.
- Iran's compromise with EU3+3 reached and now is going to be implemented
- JCPOA is a great deal

IRAN

1% of world population

7% of world mineral resources

11% of oil proven reserves

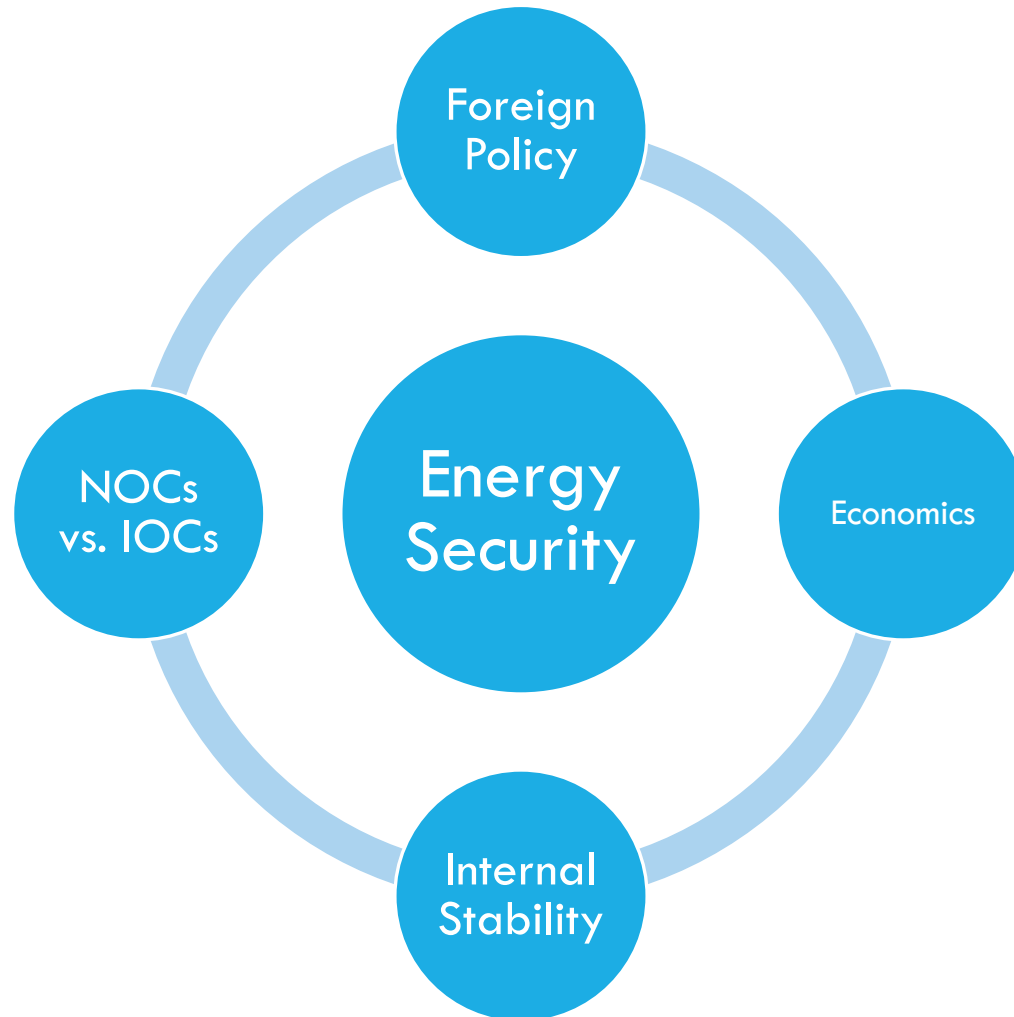
17% of gas proven reserves

The first country in the world by combination of gas and oil reserves

It produces 3.5 mb/d of oil, and 170 bcm/y of gas

A giant in energy market, one of its feet over the Persian Gulf and another over Caspian Sea
Disparity of capacity and production is historical

ENERGY SECURITY AND IRAN



LAW

Three school of thoughts must work together

- International Law, IOCs
- Constitutional Law, NOCs
- Islamic Law, Owners

In Iran it might be congruent constitutional and Islamic law which IPC is at the same line.

The correct legal frame work facilitates progress

INTERNAL SITUATION

Iran's consumption is about 4% of oil and 5% of gas globally

Iran is unique for two energy carrier systems:

- Gas Network
- Electrical Network

3300000 cars running by CNG

%88 of populations are enjoying gas system

Iran's budget related 45% to oil revenue

No matter how much gas produces, consumes all of it domestically. 200 mcm/day

Privileges of Iran's energy industry

- Human Resources
- Domestic Manufacturing
- Private Sector

IRAN AND ITS NEIGHBORS

All Iran's neighbors require gas except Qatar.

Iran has finalized contracts with Iraq, second importer from Iran

Iraq imports 2 bcm/y from Iran

Cost of pipeline construction: \$2.3 b

Oman Pipeline: 9 bcm/y via Oman Seabed

Cost of pipeline construction: \$ b

Imports from Turkmenistan: 16 bcm/y

IRAN AND ASIA

Gas price is low in US, in Europe, right prices in East.

Annoying discussions with Pakistan on how much and when they are ready to receive gas

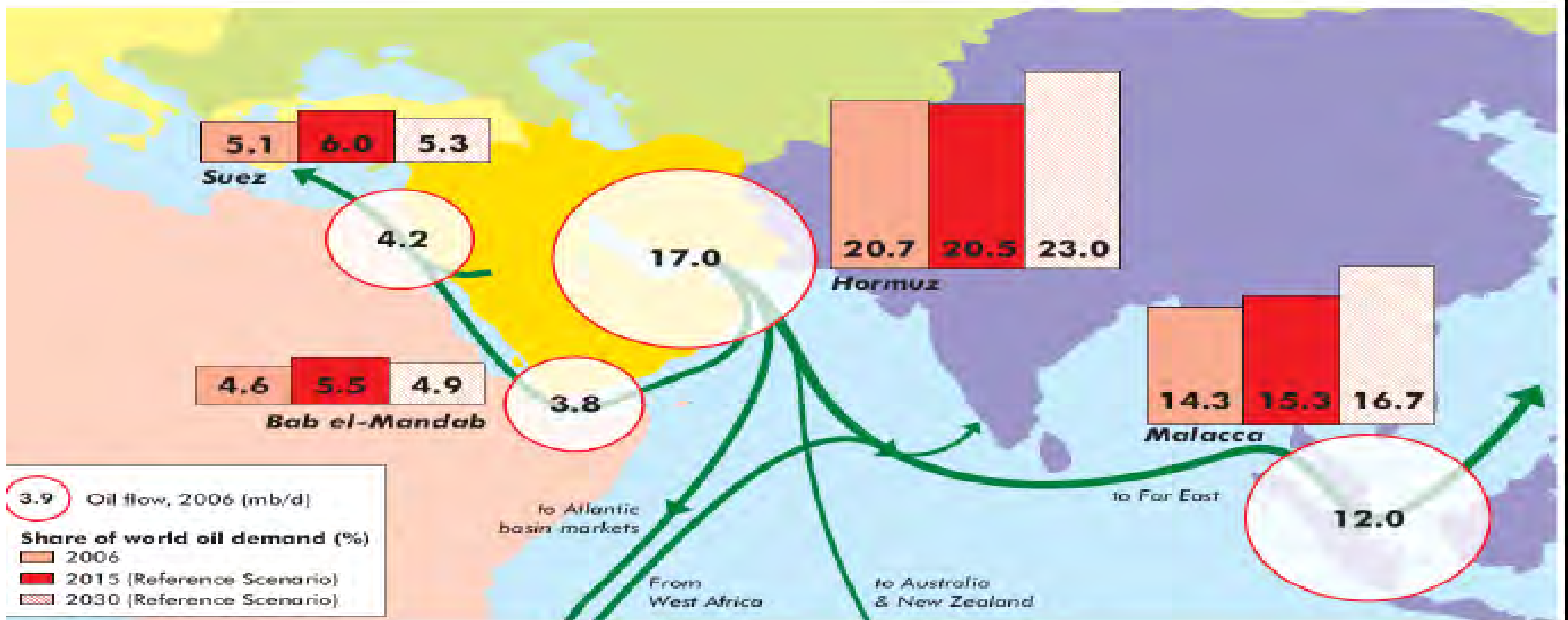
China OROB, Gas pipeline via Central Asia

Pipeline to India

LNG for Japan, and other Asian markets

Russia: Crude oil 500,000 b/d contract

CHOKEPOINTS



IRAN AND EUROPE

- European leaders are increasingly conscious of their heavy dependence on energy supplies from Russia
- The annexation of new East and Central European countries to European Union necessarily increases energy consumption in different countries.
- European continent is surrounded by the seas of oil and gas
 - Russia
 - Caucasian state
 - Central Asian Republics
 - Persian Gulf countries
 - North African statesare potentially ready to supply European demand as well as demand grows
- Diversification should be a tool for energy supply security

IRAN AND EUROPE II

Iran sends gas to Turkey via pipe line, 20 bcm/y

Armenia 1 bcm/y

Azerbaijan swap: 0.5 bcm/y

Iran does not foresee more gas export through pipeline to Europe.

We have projects on LNG, \$10 b with German companies on 5 years.

With many European companies, there seem to be engaged with Iranian oil sector

IRAN AND EUROPE III

There are many ways to import exhaustible resources by EU members.

- Pipelines,
- Crude oil tankers,
- LNG terminals, and
- Importing of electricity
- There are also chokepoints around the European continent which impose additional costs for reducing risk and political threats

FUTURE OF IRAN'S ENERGY SECTOR

- NIOC has defined 50 projects, about \$168 b
- In December 2015 Iran Petroleum Contract (IPC) will introduce
- Oil Contracts:
 - - Concession
 - - Buy back
 - - PSA
- IPC is different from buyback. It is extended about 20 to 22 years.
- Risk is low
- Transparency, predictability, project management, transfer of technology, long term relationship, stability in the region make the contract attractive.

FINANCIAL NEEDS

- Iran's energy sector need \$500 b during 5 years
 - - Upstream
 - - Petrochemical
 - - Refineries
 - - Energy Efficiency
- Domestic consumption: 1.7 mb/d
- Total waste of energy: 1.2 mb/d equivalent

RECOMMENDATIONS IRAN'S ENERGY POLICY

- Iran can cooperate with Europe on crude oil export business as had done usually from 1900
- Iran is better to find new ways of reducing energy losses in its energy system, increase efficiency, upgrade productivity, and promote its industrial effectiveness.
- Iran should consider to join Energy Charter again
- There is no gas for exporting to Europe in short and medium term horizon
- It is recommended for Iran to look at Asia as the most reliable market for energy cooperation
- Especially cooperation along Silk Road is durable and more profitable
- Europe can show its good will by resuming TCA talks again



Thank you

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