“Energy and Energy Security: Turkey’s Role”

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WORLD ENERGY OUTLOOK BY 2030

- 45% INCREASE IN GLOBAL ENERGY DEMAND BY 2030
- ABOUT 26 TRILLION US $ OF INVESTMENT
- SIGNIFICANCE OF DIVERSIFICATION OF THE ENERGY SUPPLIES AND THE TRANSPORT ROUTES

**World primary energy demand**

Source: IEA WEO 2008

Total investment = $26.3 trillion (in year-2007 dollars)

- Power 52% $13.6 trillion
- Oil 24% $6.3 trillion
- Gas 21% $5.5 trillion
- Coal 3% $0.7 trillion
- Biofuels 1% $0.2 trillion
DEMAND FOR PRIMARY ENERGY & IMPORT DEPENDENCY

“Reference Scenario: 110% increase until 2020”

Graph showing the demand for primary energy from 2005 to 2020, with categories for Nuclear, Other Renewables, Hydro, Natural Gas, Oil, and Coal. The pie chart on the right indicates that net imports account for 28% of the demand, while production accounts for 74%.

ktoe
TURKEY’S OIL AND GAS POTENTIAL
SUBSTENTIAL PROGRESS IN RESTRUCTURING AND LIBERALIZING THE ENERGY MARKET

COMPETITIVENESS OF THE ENERGY MARKET, SUPPORTED BY A STABLE LEGAL AND REGULATORY FRAMEWORK, IS PERCEIVED AS ONE OF THE KEY INSTRUMENTS TO ADDRESS THE CHALLENGES.

ELECTRICITY, NATURAL GAS, PETROLEUM AND LPG MARKET LAWS.

RENEWABLE ENERGY AND ENERGY EFFICIENCY LAWS

KYOTO PROTOCOL WAS RATIFIED BY THE TURKISH PARLIAMENT FEBRUARY 5th, 2009
PROVEN OIL & GAS RESERVES AROUND TURKEY

Neighborhood with 72% of Gas and 73% of Oil reserves

Source: CIA
BAKU – TBILISI – CEYHAN CRUDE OIL PIPELINE

- IN OPERATION SINCE MAY 2006
- 1st TANKER LOADED ON JUNE 4TH, 2006
- PROVIDES APP. 1.5% OF WORLD OIL SUPPLY
- THE CAPACITY EXPANSION TO 1.2 mbbl/day, SOON TO 1.6 mbbl/day
- KAZAKH OIL FLOWS THROUGH THE BTC PIPELINE SINCE LATE 2008

**TECHNICAL FEATURES**
- Total Length: 1760 Km
- Pipeline Diameter: 46-42-34 Inch
- Cur. Capacity: 50 mtoa (1 mbbl/day)
BAKU – TBILISI – ERZURUM GAS PIPELINE

- SALE AND PURCHASE AGREEMENT FOR 6.6 bcm OF GAS WAS SIGNED ON 12 MARCH 2001
- IN OPERATION SINCE JULY 2007
- IN 2008, 4.5 bcm IMPORTED
- IDLE CAPACITY IS CONSIDERED TO BE USED FOR SHAH DENIZ PHASE-2 PRODUCTION

TECHNICAL FEATURES
- Total Length: 915 Km
- Pipeline Diameter: 42 Inch
- Max. Capacity: 20 bcma
TURKEY – GREECE – ITALY GAS PIPELINE PROJECT

ON NOVEMBER 18, 2007 GAS SUPPLY STARTED ON ITG

TRILATERAL IGA ON ITGI ON JULY 26th, 2007

IGI IS TO OPERATE BY 2013

TECHNICAL FEATURES

- ITG Length: 296 Km
- Total Length: 808 Km
- Pipeline Dia.: 36 Inch
- Contracted Cap.: 12 bcma
NABUCCO GAS PIPELINE PROJECT

- German RWE has been the 6th Project Partner in 2008
- First round of official negotiations on IGA was held in Brussels, January this year and continued in Vienna
- PSA’s to follow
- Start of operations by 2014

**Technical Features**

- Total Length: 3300 Km
- Pipeline Dia.: 42-56 Inch
- Max. Capacity: 31 bcm/a
The Egyptian gas is currently being supplied to Syria.

The network of Turkey and Syria will be linked with the construction of remaining 230 km.

Further gas supplies must be secured before proceeding with Syria – Turkey interconnector.

**Technical Features**
- Total Length: 1200 Km
- Pipeline Dia.: 36 Inch
- Max. Capacity: 10 bcma
IRAQ – TURKEY GAS PIPELINE PROJECT

- HAVE GREAT POTENTIAL IN ENHANCING BOTH TURKEY’S AND EU’S ENERGY SECURITY
- MoU SIGNED AMONG TPAO, BOTAS AND SHELL ENERGY EUROPE BVA ON 20 NOVEMBER 2008
- MoU REFERS TO COOPERATION IN EXPLORATION, PRODUCTION, TRANSPORTATION AND MARKETING FIELDS
NARROWEST STRAIT used for international navigation

TURKISH STRAITS & SAMSUN – CEYHAN PROJECT

ISTANBUL STRAIT

ÇANAKKALE STRAIT

SAMSUN - CEYHAN CRUDOIL PIPELINE PROJECT
CEYHAN PORT

OIL REFINERY, PETROCHEMICALS AND OTHER OIL RELATED INDUSTRIES
GAS TO EUROPE AND TURKEY’S TRANSIT ROLE

2nd LARGEST OIL & GAS MARKET OF THE WORLD

LARGEST OIL & GAS SOURCES OF THE WORLD

Natural Transit Route
Thank You...
CRUDE OIL PIPELINES

CEYHAN: AN ENERGY HUB

A & B = KIRKUK-CEYHAN CRUDE OIL PIPELINES (71 MILLION TONS/YEAR)
C = BAKU-TBILISI-CEYHAN CRUDE OIL PIPELINE (50 MILLION TONS/YEAR) (planning 80 MTA)
D = SAMSUN-CEYHAN CRUDE OIL PIPELINE (70 MILLION TONS/YEAR)