



Natural Gas in Turkey – Today and Tomorrow

TURKISH GAS MARKET TODAY

Current Supply Sources to Turkey With Only Small Idle Capacities

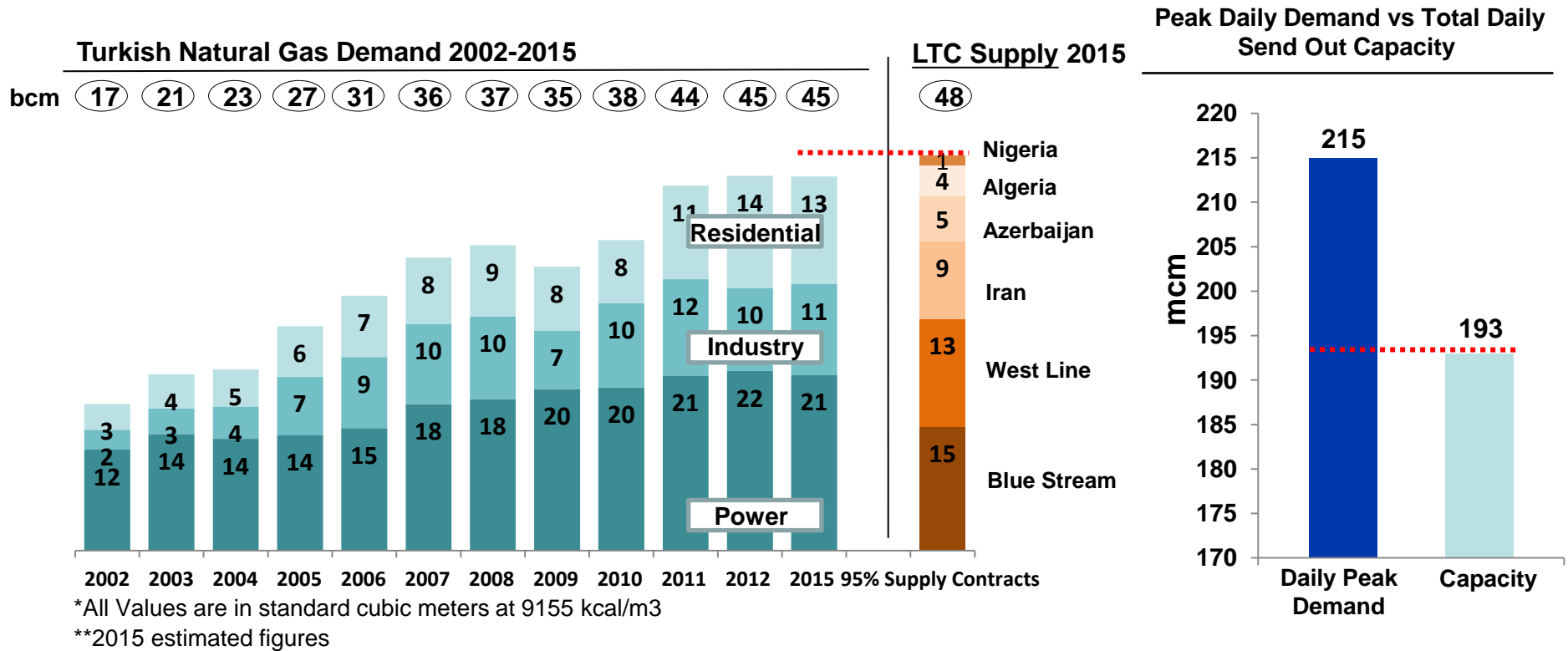
Turkey has access to major supply sources through 4 import pipelines and 2 LNG regasification terminals.



*Note: 1.2 bcm is a volume transfer from Azeri BOTAŞ contract to Socar.

Demand Has Been Rising Progressively 10% CAGR between 2002 – 2015

Long term import contracts have become insufficient to meet winter demand

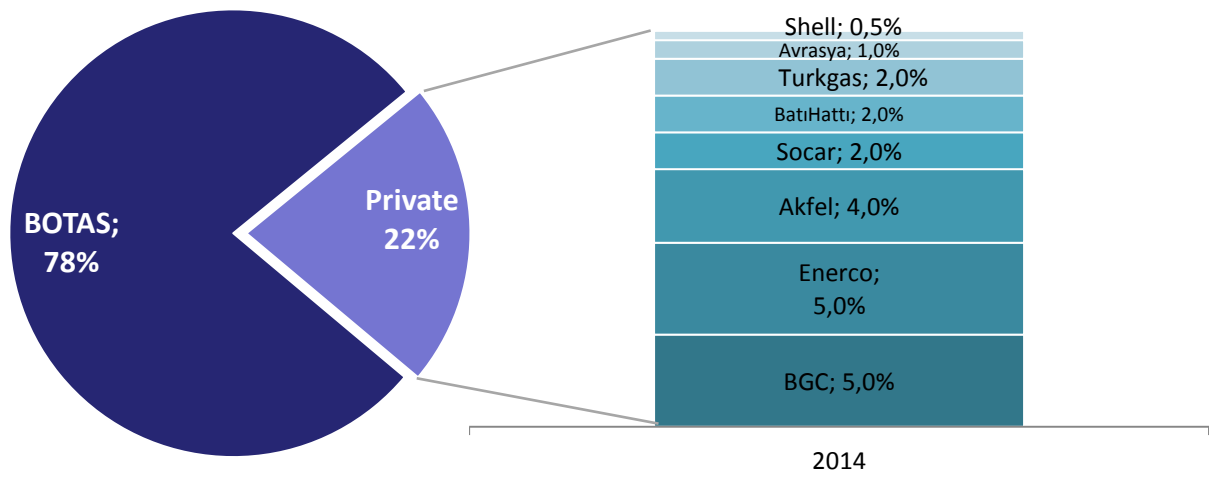


Supply problems were already faced during peak demand periods due to insufficient supply and infrastructure capacities

Source: EMRA, Turkey

Natural Gas Market Players In Import

2015 Market Share in Import Contracts



1st Release – 4 bcm

Enerco 2.5 bcm

BGC 0.75 bcm

Avrasya 0.5 bcm

Shell 0.25 bcm

2nd Release – 6 bcm

Akfel 2.25 bcm

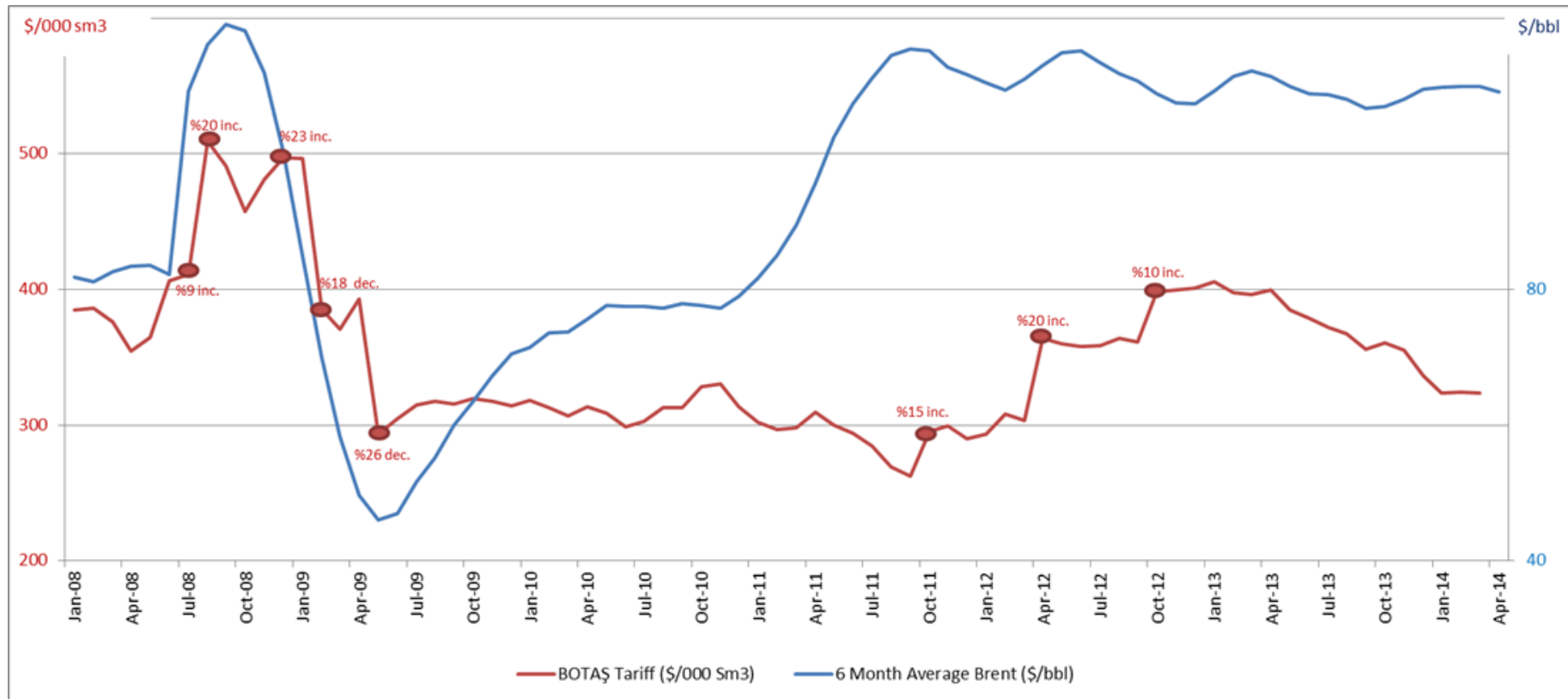
BGC 1.75 bcm

Batı Hattı 1.0 bcm

Turkgas 1.0 bcm

*Note: Socar Turkey which receives 1.2 bcm from BOTAŞ
**1st Release realized in 2008 and 2nd release realized in 2013

Cross Subsidization of BOTAŞ



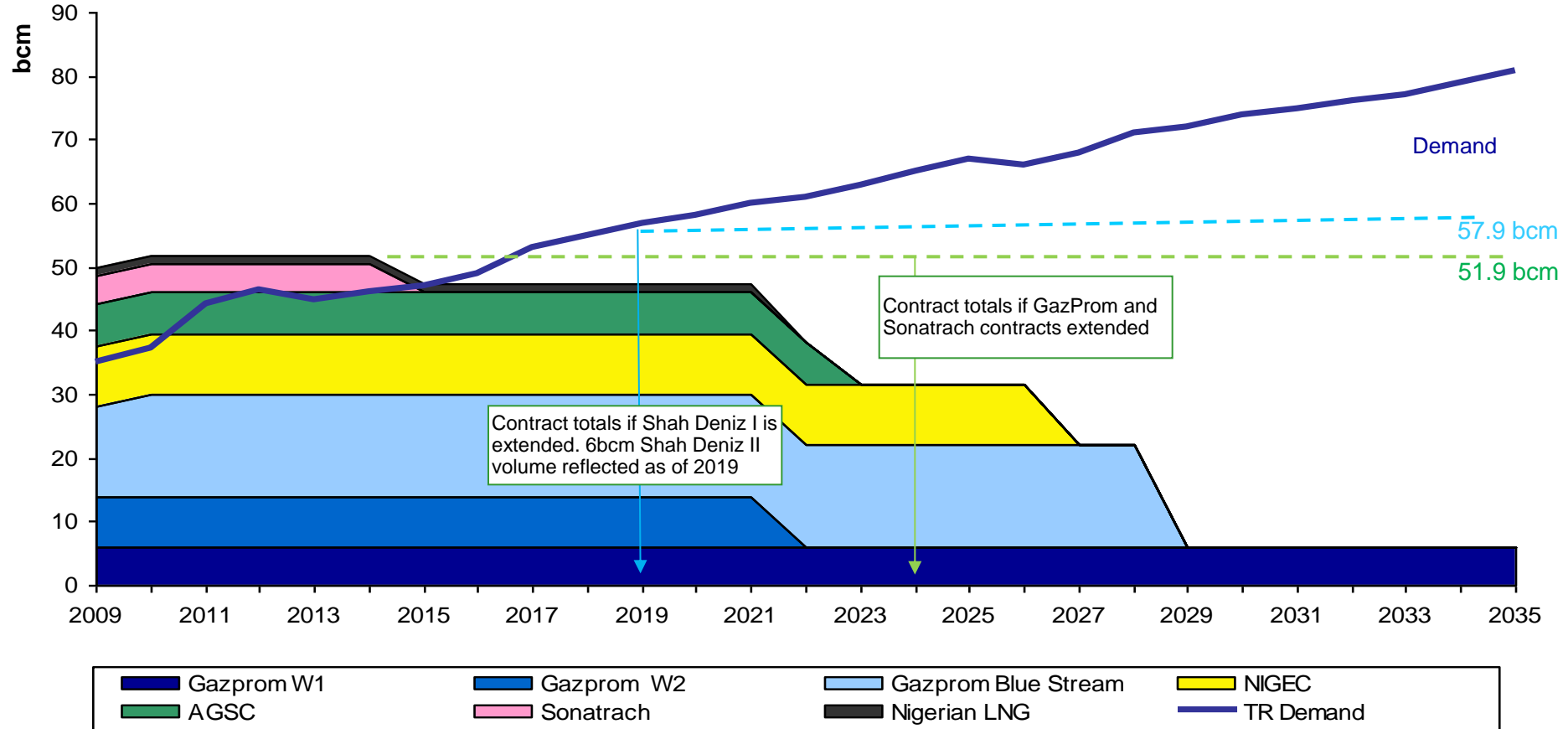
- BOTAŞ is expected to finalize the year with a loss of ~3.5 billion \$ because of cross subsidization
- In 2013 loss was ~900 million \$ and in 2012 ~400 million \$
- Independent power producers buy natural gas from BOTAŞ at prices generally half those paid in BOOs and BOTs
- Assumed for 2014;

avg BOTAŞ cost	435 \$/000Sm3
industrial customer price	359 \$/000Sm3
Household price	390 \$/000Sm3
BO/BOT price	520 \$/000Sm3 (source: Oxford Energy)

TURKISH GAS MARKET TOMORROW

Turkish Natural Gas Demand and Supply Developments

LNG, Azeri SD Phase II, Iraqi, Black Sea and Israeli volumes will compete to fill the gap between demand and supply after 2019



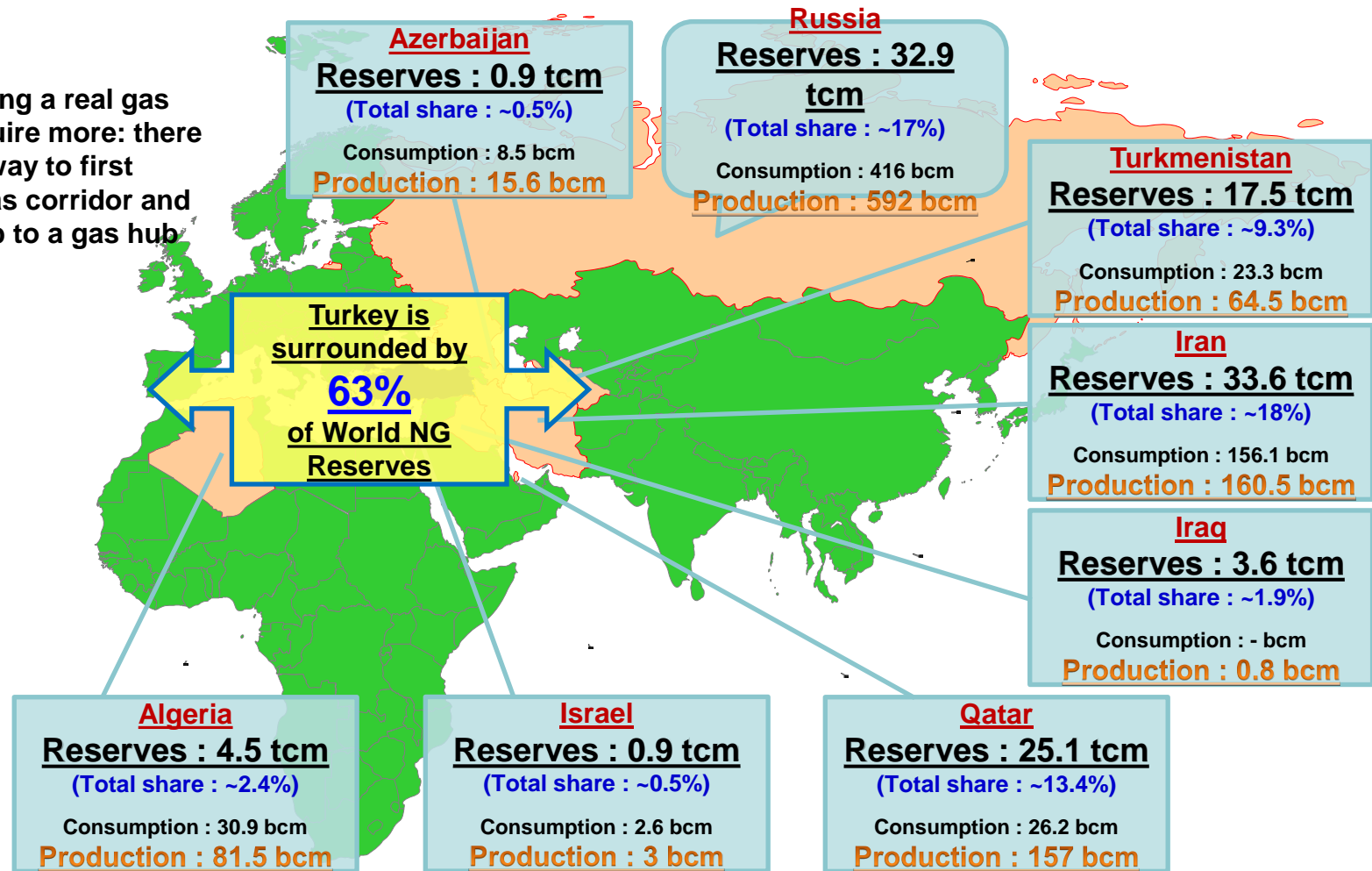
Note: Values are in 9000 kcal/m³

Source: IHS CERA, 2013

Turkey's Excellent Geographical Location on Gas Map

Turkey is surrounded by vast natural gas reserves...

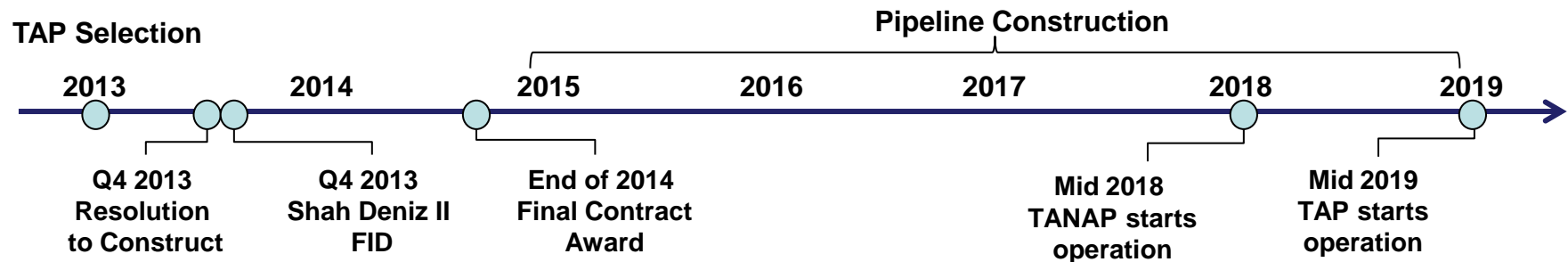
..but becoming a real gas hub will require more: there is a stoney way to first become a gas corridor and then develop to a gas hub



Source: BP Statistical Report 2013

TANAP/TAP Opening up the Southern Gas Corridor

TANAP and TAP supports the EU's initiative to enhance Europe's energy security by connecting to new sources of natural gas in the Caspian Sea



New Significant Supply Sources Earliest by 2017, Realistically Later

IMPORT PROJECT	AGREEMENT DATE	START YEAR	VOL.	FURTHER STEPS
Azerbaijan	2014-2019	2019	6 + 10 bcmpa	<ul style="list-style-type: none"> ▪ 6 bcmpa reserved for BOTAŞ ▪ Transit volume delivery to Turkey may be an option ▪ Volumes from Azerbaijan beyond Shah Deniz II project may arrive
Iraqi Gas	2014-2017	2017 ?	3 to 10 bcmpa	<ul style="list-style-type: none"> ▪ New volumes may arrive starting with 3 bcmpa and ramping up to 10 bcmpa.
Israeli Gas	2015-2019	2019	7 to 10 bcmpa	<ul style="list-style-type: none"> ▪ 7 to 10 bcmpa pipe gas expected only in 2019.
Black Sea (Romanian) Gas	2015-2016	2019	6 bcmpa	<ul style="list-style-type: none"> ▪ Target markets of these volumes are not clear yet.
Russia Blue Stream	-	-	3 bcmpa	<ul style="list-style-type: none"> ▪ Upgrading of infrastructure required
LNG	-	-	TBC	<ul style="list-style-type: none"> ▪ BOTAŞ in talks with other LNG suppliers (i.e. Norway, Qatar)

Liberalising Turkish Natural Gas Market is Indispensable

Current Framework

- Subsidized tariffs are set by the government, no market fundamentals/cost reflectiveness
- BOTAŞ controls 80% of wholesale volumes and import points
- Insufficient infrastructure (network and storages)
- Priority given to BOTAŞ

Major Requirements

- Gas costs to be reflected on prices. Complete abolishment of regulated tariffs
- No restrictions for gas imports for private players independent of the source
- Attractive and reliable legal/regulatory framework to incentivize necessary infrastructure investments
- Non discriminatory access to infrastructure

Natural Gas Law Amendment: When and How ?

Key Messages



Turkish Gas Market Fundamentals

- Market has finally proved to be tight
- Due to its excellent geographical location new supplies will be available to Turkey mid to long term.
- Government involvement in gas business stays high



Turkgas's Long-Term Market View

- Turkish gas market will remain tight in the short to medium term due to significant demand growth and limited new supplies
- Import prices will be oil-based and convert to hub prices only after 2023
- Importers of gas are the “winners” in this market environment



Turkgas's Gas Strategy

- Turkgas will secure gas for its gas-fired power plants and develop new gas supplies in a growing gas market
- Turkgas is targeting a significant market share in Turkish gas market