

# ENERGY SECURITY AND GAS SUPPLY IN SE EUROPE



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## Recent developments in Turkish Natural Gas Market

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`The interpretations, estimates and/or opinions reflect the judgment of the authors, not the Company`



# Overview of Türkerler Group

## Construction



Contract Work

Real Estate Development

Water & Infrastructure

Cement

### Highlights

- A leading brand in the construction business
- Pipeline of A+ real estate development projects
- Significant growth potential for infrastructure

### International Alliances

OTV International, a Veolia Water company

Others

## Energy



Generation

Distribution

Trading

### Highlights

- 145 MW of power plants to be operational by '14
- 532.000 power distribution customers
- 510.000 gas distribution customers in İzmir

### International Alliances

Crescent Petroleum

## Public-Private Partnership



Healthcare

### Highlights

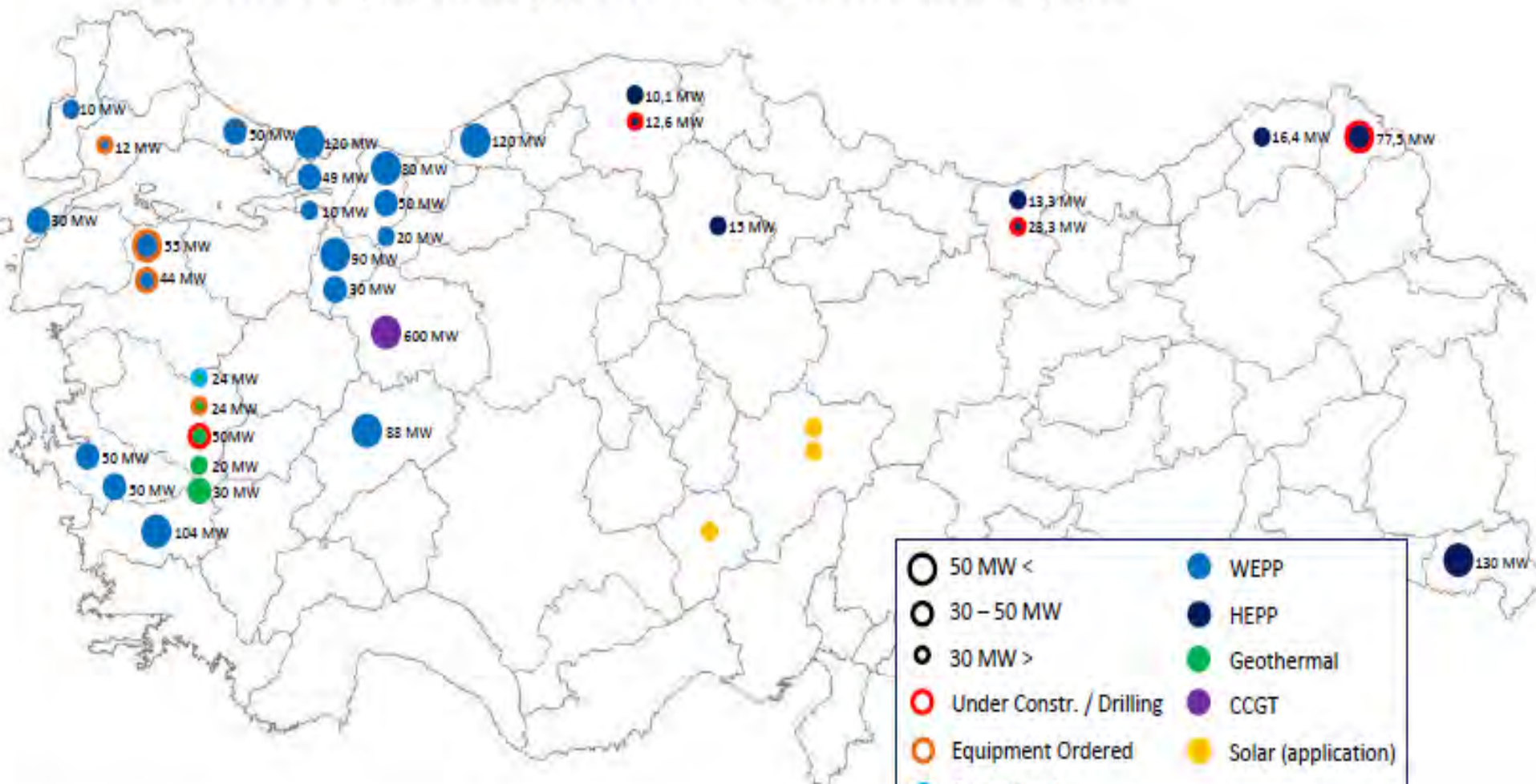
- Won the tender for Turkey's first and largest PPP
- Ankara, İzmir, Kocaeli healthcare campus projects

### Local & International Alliances

Astaldi SpA, Gama Holding

# Generation

- One of the largest and most diverse power generation project portfolios in Turkey
  - 1.062 MW of WEPP, 600 MW CCGT, 300 MW of HEPP and 250 MW of Geothermal projects

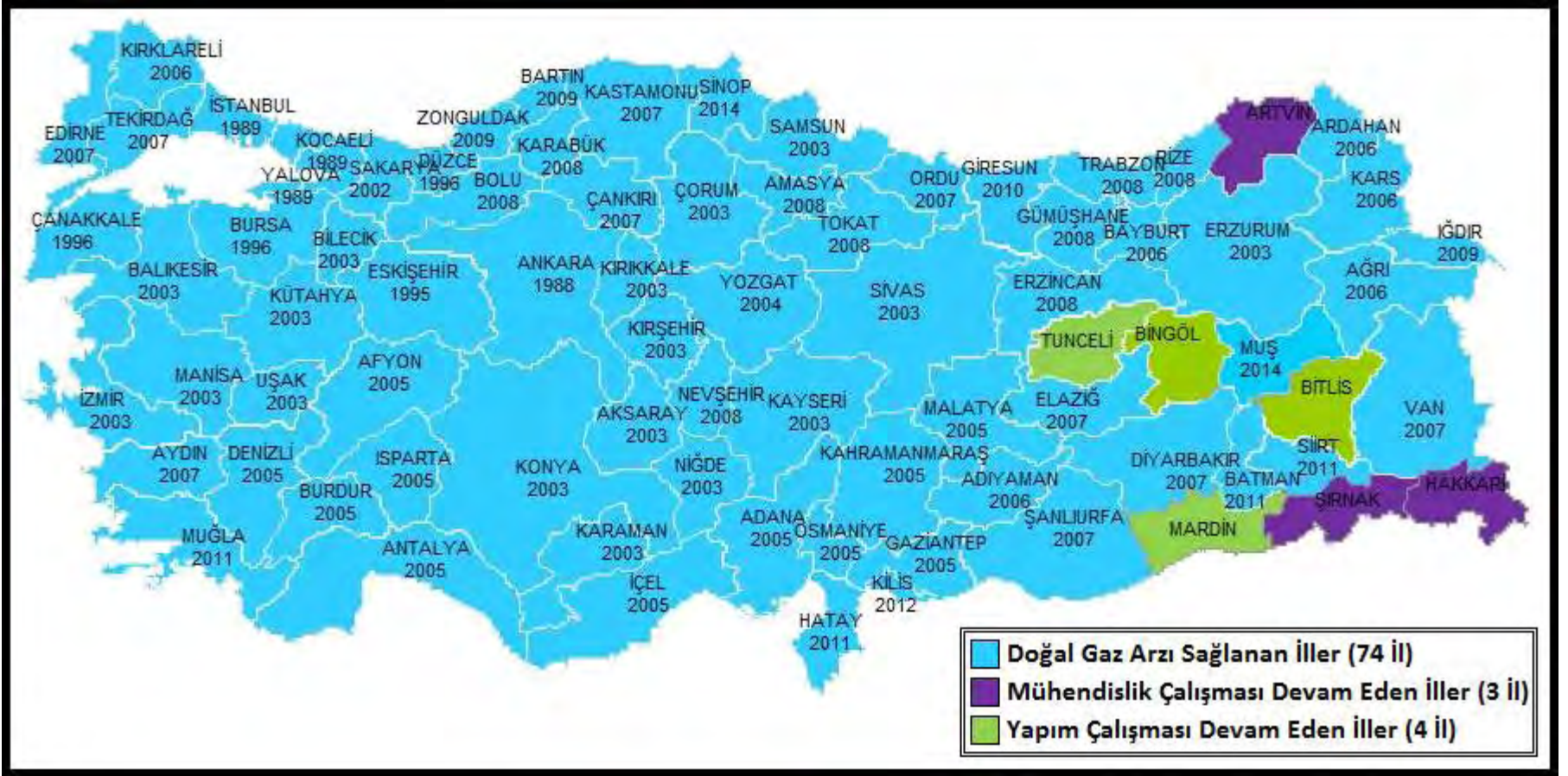




# Turkey Natural Gas Transmission System



TRANSMISSION SYSTEM					
	2009	2010	2011	2012	2013
<b>PIPELINE DISTANCE (KM)</b>	<b>11332</b>	<b>11593</b>	<b>12174</b>	<b>12290</b>	<b>&gt;13092*</b>
<b>NUMBER OF COMPRESSOR STATIONS</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>7**</b>	<b>9**</b>
<b>FISCAL METERING STATINS (ADET)</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>





# GAS IMPORT CONTRACTS

## BOTAS

- **Russia Western Route 4.0 BCM**
- **Russia Blue stream 16.0 BCM**
- **Iran 10.0 BCM**
- **Azerbaijan S.D.1 6.6 BCM**
- **Azerbaijan S.D.2 6.0 BCM**
- **Algeria 4.0 BCM**
- **Nigeria 1.2 BCM**

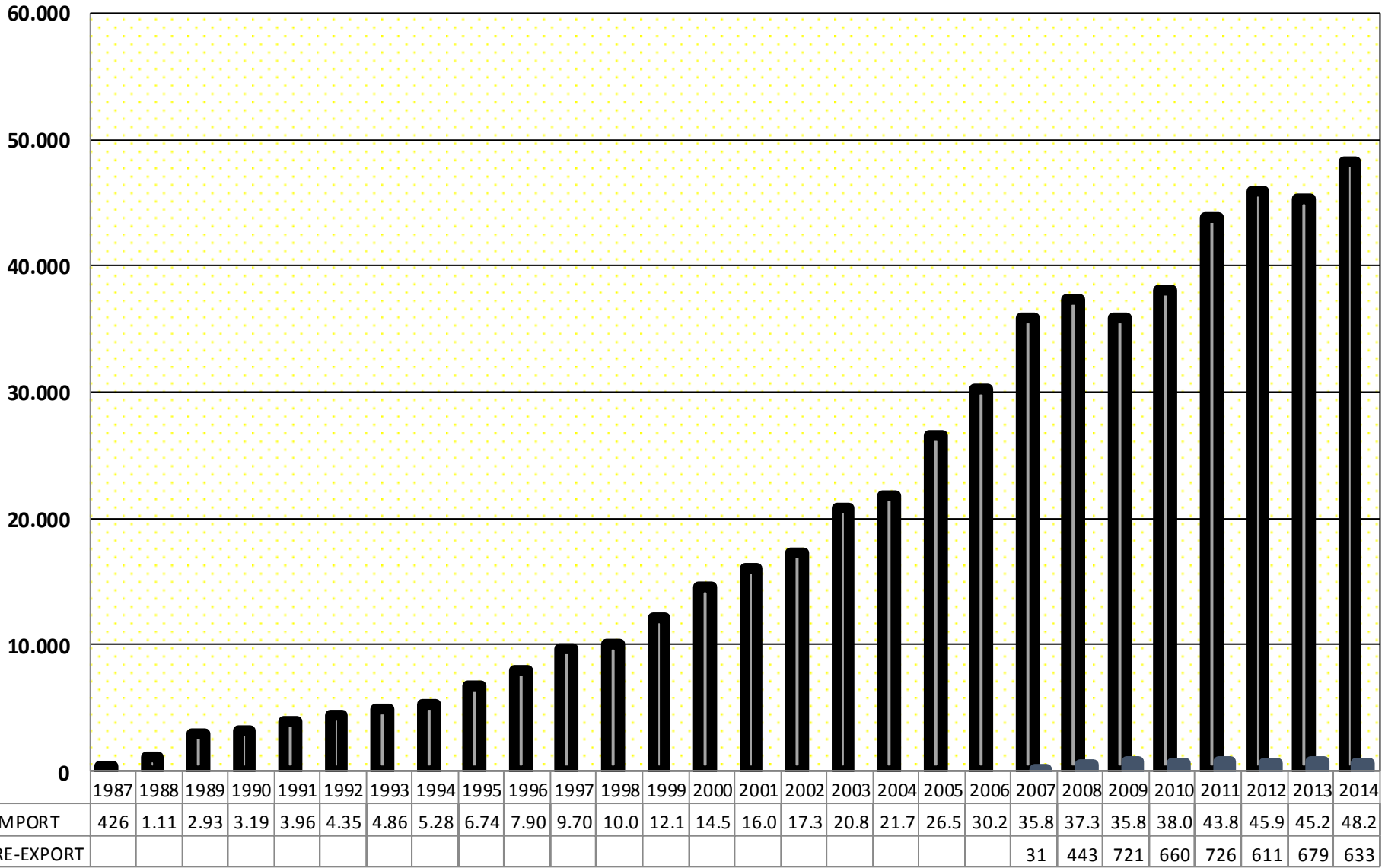
**TOTAL 47.8 BCM**

## PRIVATE IMPORTERS

- **Enerco 2.5 BCM**
- **Bosphorus 2.5 BCM**
- **Akfel 2.25 BCM**
- **Avrasya 0.5 BCM**
- **Batı Hattı 1.0 BCM**
- **Kibar 1.0 BCM**
- **Shell 0.25 BCM**
- **Socar 1.2 BCM**

**TOTAL 10.0 BCM**

# Gas Import & Re-Export



**2013**

LNG  
(Algeria +  
Nigeria)

3%

12%

Azerbaijan  
9%

Iran  
19%

Russian  
Federation  
57%

**2014**

LNG  
(Algeria +  
Nigeria)

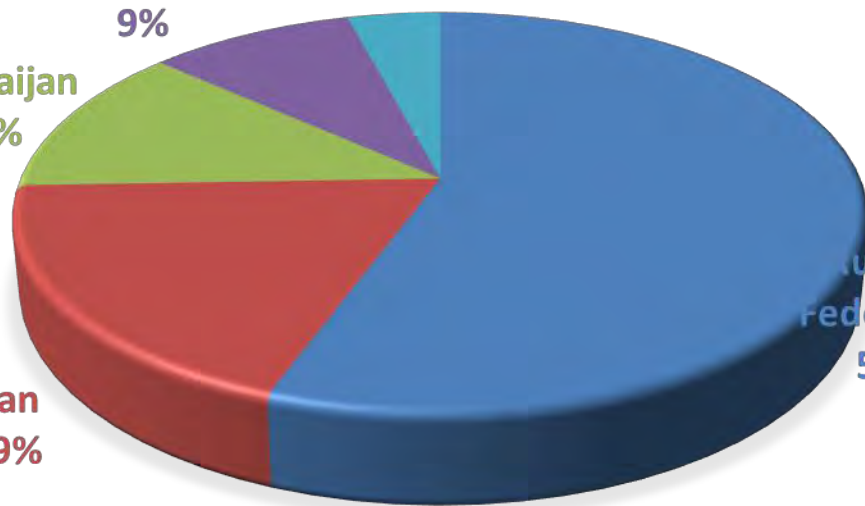
4%

9%

Azerbaijan  
12%

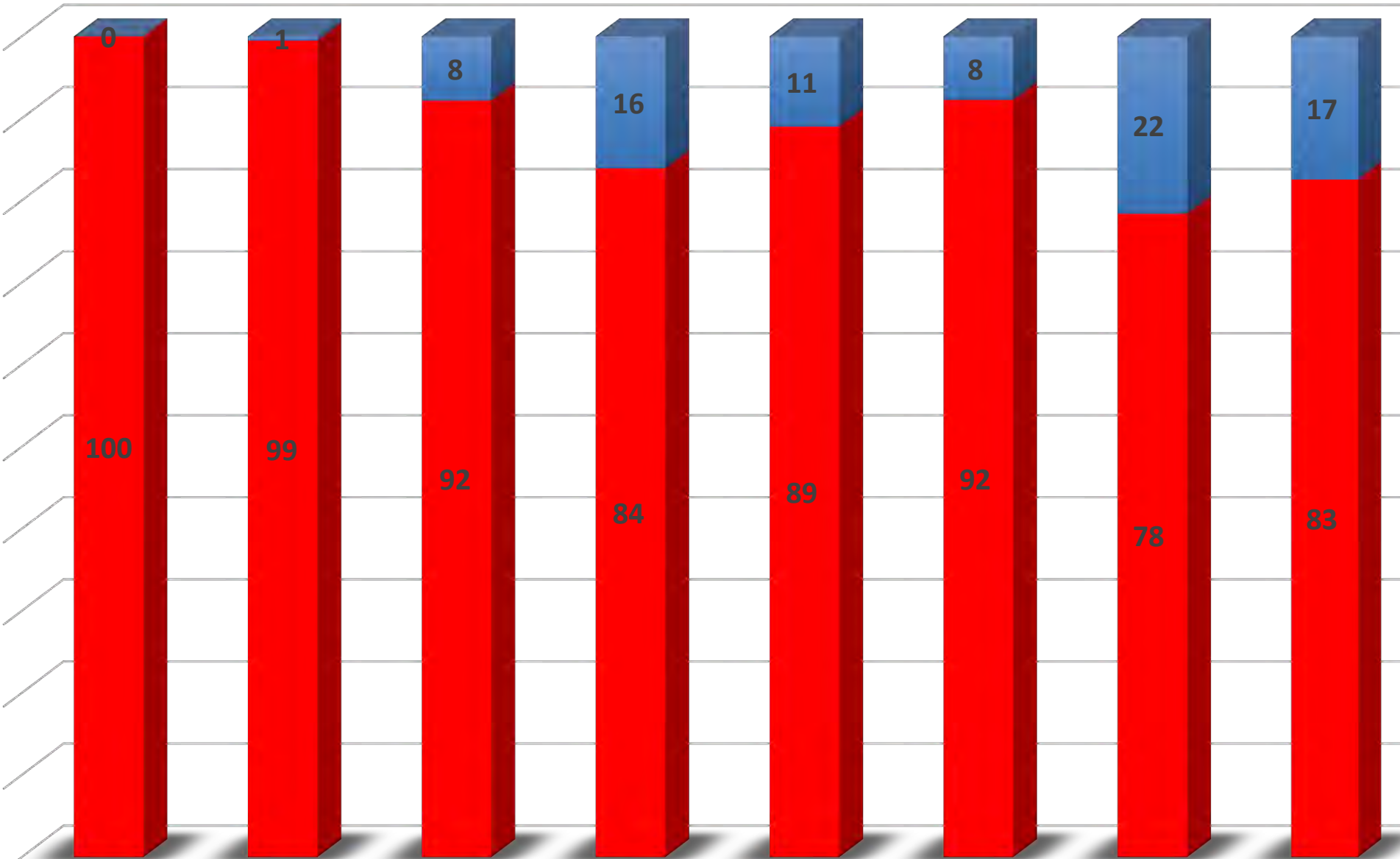
Iran  
19%

Russian  
Federation  
56%



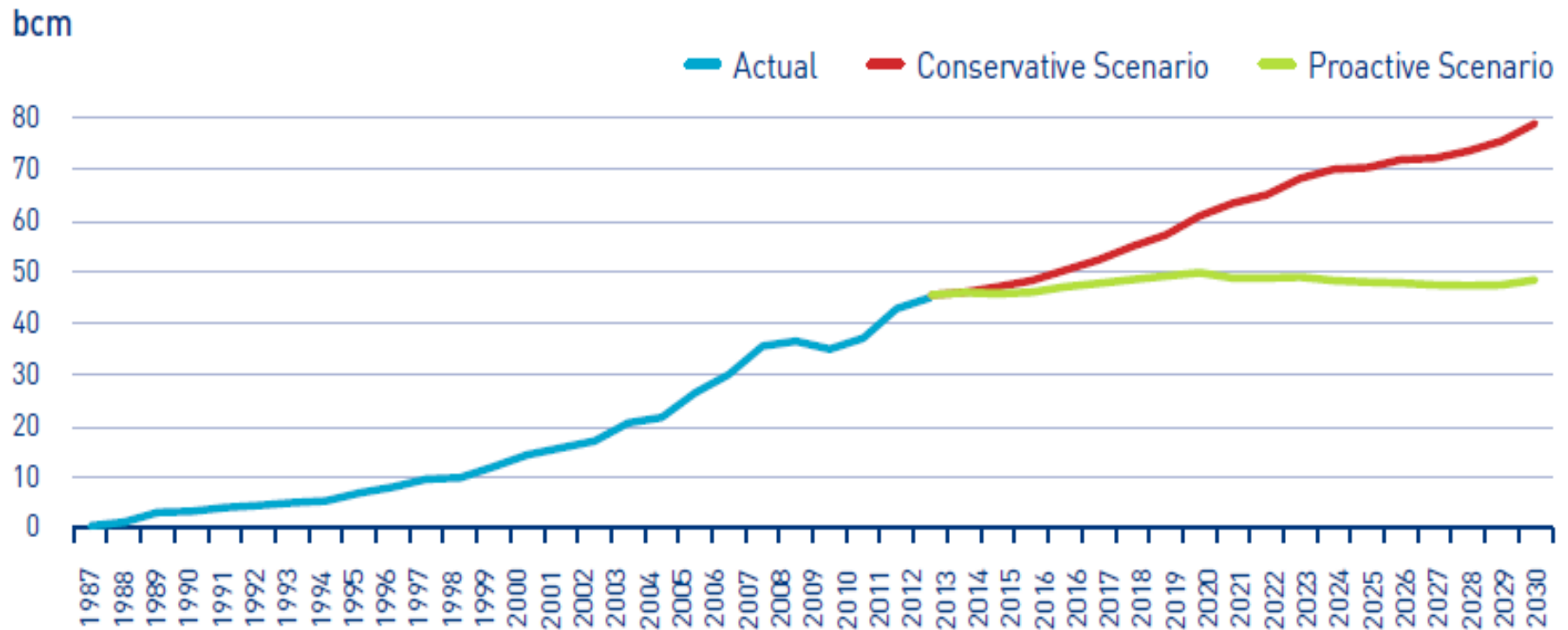


# Market Share of Private Importers



Year	2007	2008	2009	2010	2011	2012	2013	2014
Private Importers (%)	100	99	92	84	89	92	78	83
Other (%)	0	1	8	16	11	8	22	17

# TURKEY NET GAS IMPORTS



***...expected to increase by ~70% between 2012 and 2030 (CS), ...  
approximately the same level (a few bcm higher) in the PS***

***Source: OME MEP Turkey Presentation by Sohbet Karbuz***









# TURKISH STREAM

## Conditions of Turkish Stream:

- The steel required for the first line under the Black Sea has been procured from Russian steel mills is being stocked at Varna, Bulgaria.
- As of March 11, 2015, the two pipe-laying vessels hired by Gazprom - Saipem's Saipem 7000 and Castoro Sei - were both off Burgas. Saipem said in December 2014 it had received "notification of suspension of marine spread activities" for the South Stream pipeline ... contract."
- If built, the first phase would likely be one or two of the four lines. These would allow reversal of the Balkan-Turkey lines and supply of 5 Bcm/year to (an expanded) TAP

MarineTraffic Live Map Vessels Ports Photos Partidpate+ Services- Vessel/Port

### SAIPEM 7000

Platform [Add to Fleet](#)

IMO: 8501567	Gross Tonnage: 117812
MMSI: 309461000	Deadweight: 100 t
Call Sign: C6NOS	Length x Breadth: 197.95m x 87.03m
Flag: Bahamas (BS)	Year Built: 1987
AIS Type: Other	Status: Active

Last Position Received [In Range](#)

Info Received: 5 min ago (2015-03-11 13:01)

Area: Black Sea

Latitude / Longitude: 42.811111, 27.811111

### CASTORO SEI

Platform [Add to Fleet](#)

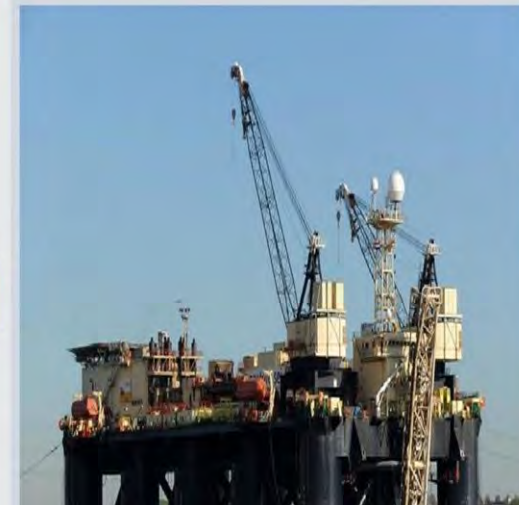
IMO: 8758603	Gross Tonnage: 31506
MMSI: 308162000	Deadweight: 28000 t
Call Sign: C6DF4	Length x Breadth: 143.35m x 64.5m
Flag: Bahamas (BS)	Year Built: 1978
AIS Type: Other	Status: Active

Last Position Received [In Range](#)

Info Received: 5 min ago (2015-03-11 13:17)

Area: Black Sea

Latitude / Longitude: 42.811111, 27.811111



**Next Steps:** To start construction, Turk Stream requires:

- 1. Signature of an intergovernmental and host government agreements between Russia & Turkey - tax treatment et
- 2. Surveying of the new part of the offshore route 260 km
- 3. Agreement on the landfall and route in Turkey - c 50 kms to BOTAS main line then 150 kms to Ipsala or Bulgarian border
- 4. Agreement between Gazprom and BOTAS on transit terms
- 5. Engineering studies and preparation and approval of the environmental impact assessment study

Achieving these by end-2016 – the date mentioned by Miller - would be a success: the first phase of Turk Stream seems unlikely.

For other strings, Gazprom needs the approval of its customers in Europe to change where they receive gas.

SOURCE: IBS Research and Consultancy, Istanbul Turkey



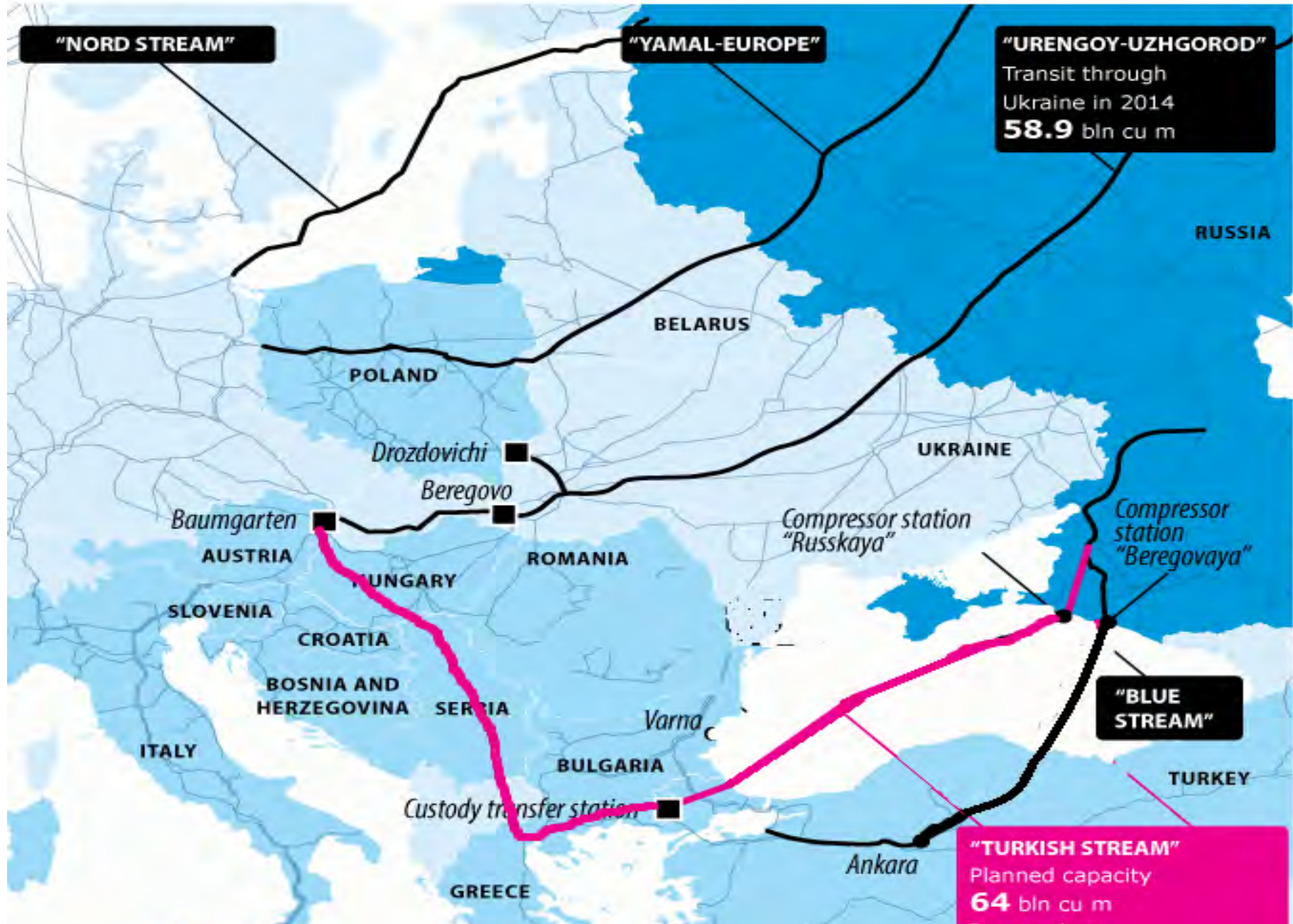


— Main pipelines

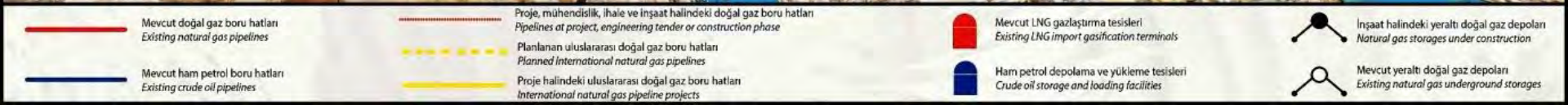
— Regional pipelines

■ Countries receiving Russian gas in transit through Ukraine

■ Gas hub







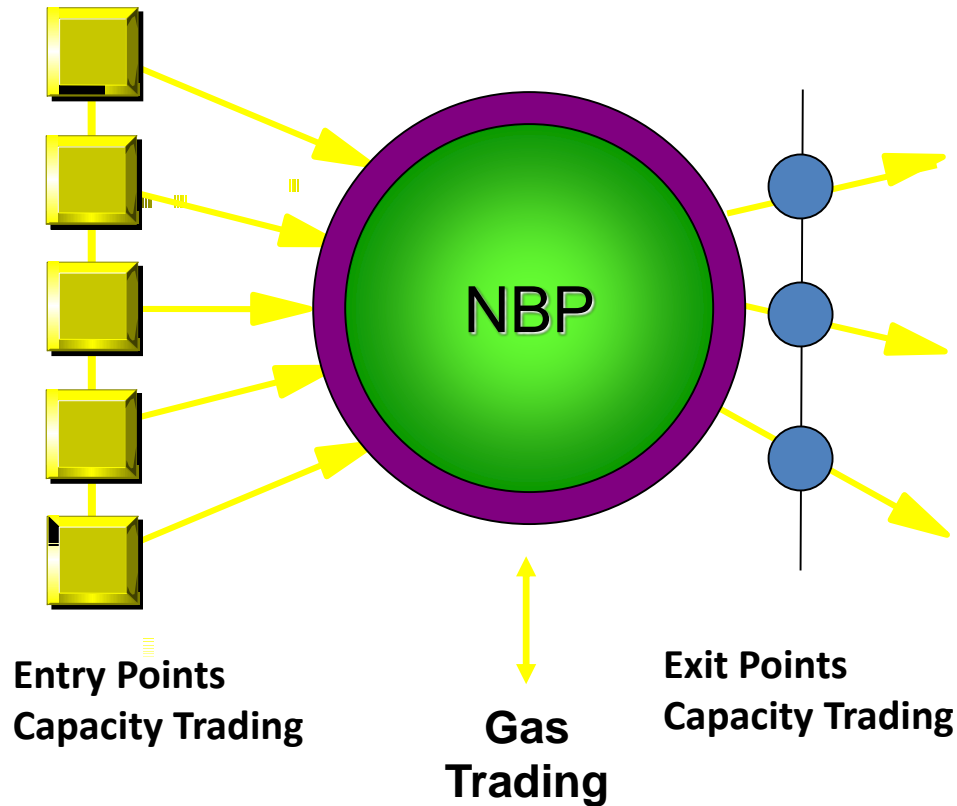


<b>BCM</b>	<b>Russia</b>	<b>Azerbaijan</b>	<b>Iran</b>	<b>Total Contract</b>	<b>Spot LNG</b>	<b>KRG</b>	<b>Russia Additional</b>	<b>Azerbaijan</b>	<b>Domestic Production</b>	<b>Total Supply</b>	<b>Demand</b>
<b>2015</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>1,5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0,6</b>	<b>53,1</b>	<b>51</b>
<b>2016</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>2</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>0,6</b>	<b>54,6</b>	<b>52,5</b>
<b>2017</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>0,6</b>	<b>55,6</b>	<b>54</b>
<b>2018</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0,6</b>	<b>57,6</b>	<b>56</b>
<b>2019</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>0,6</b>	<b>61,6</b>	<b>58</b>
<b>2020</b>	<b>29,5</b>	<b>6,5</b>	<b>9,4</b>	<b>5,6</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>0,6</b>	<b>64,6</b>	<b>59</b>



# BALANCING REGIME

## Virtual Points, Entry-Exit



**NBP a “virtual point” between entry and exit**

EMRA

Turkish Competition Authority (RK)

Direct Bilateral

OTC

Brokers

- Flexible & Bespoke Products

- Standard Contracts
- Financial Contracts

National Balancing Point (UDN)

BOTAS Transmission

System Balancing, Safety, Transport, Entry/Exit, Capacity Management

Regulators

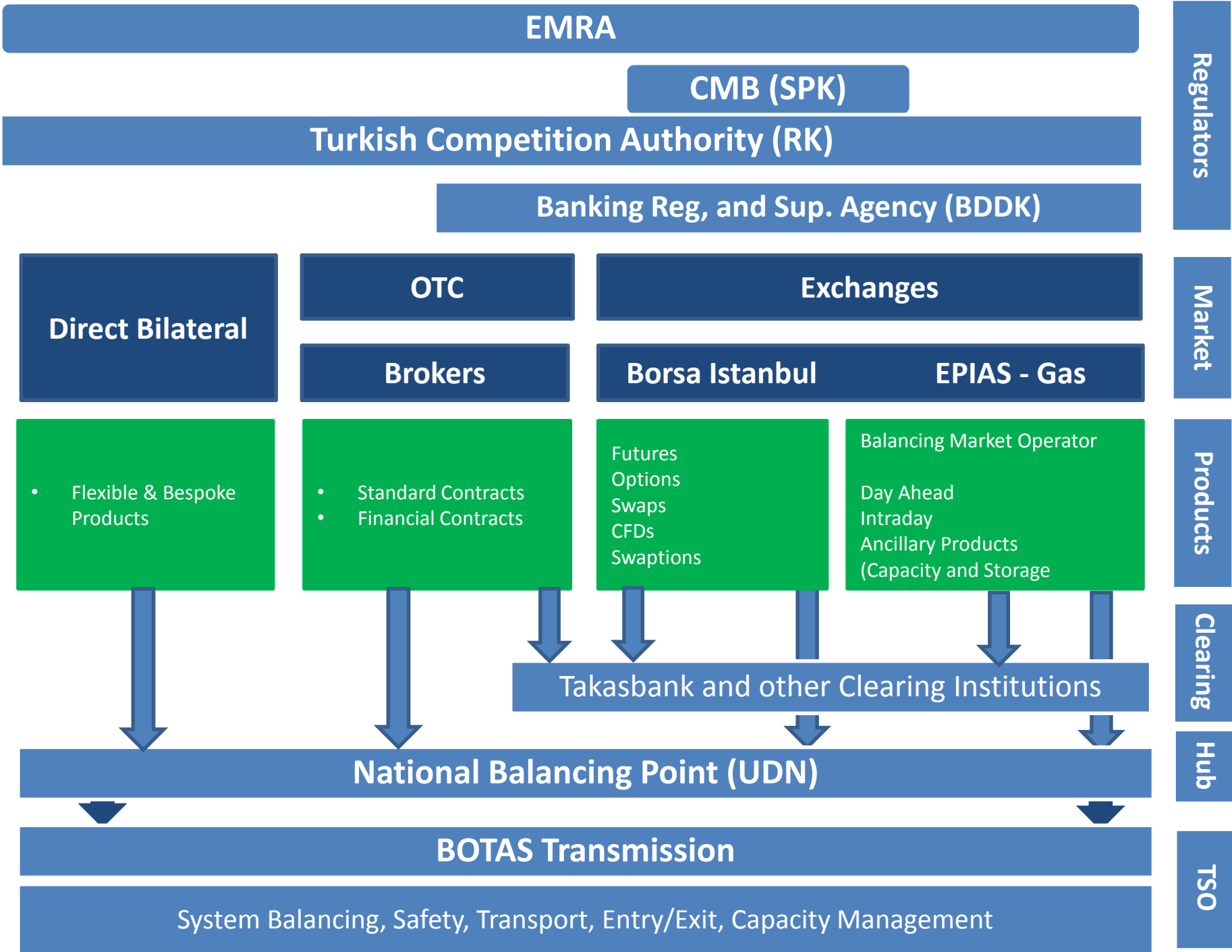
Market

Products

Hub

TSO





# THANK YOU

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