

# Is Gas Cooperation Between SEE and Turkey Possible?

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#### **About PETFORM**



Established in 2000, PETFORM has played a crucial role in the transfer of private sector views to the public authorities regarding to Turkish energy legislation amendments. Member companies mainly have activities in 2 sectors:

- Exploration & Production Sector
- Natural Gas Market

#### **Member Companies**

PETFORM

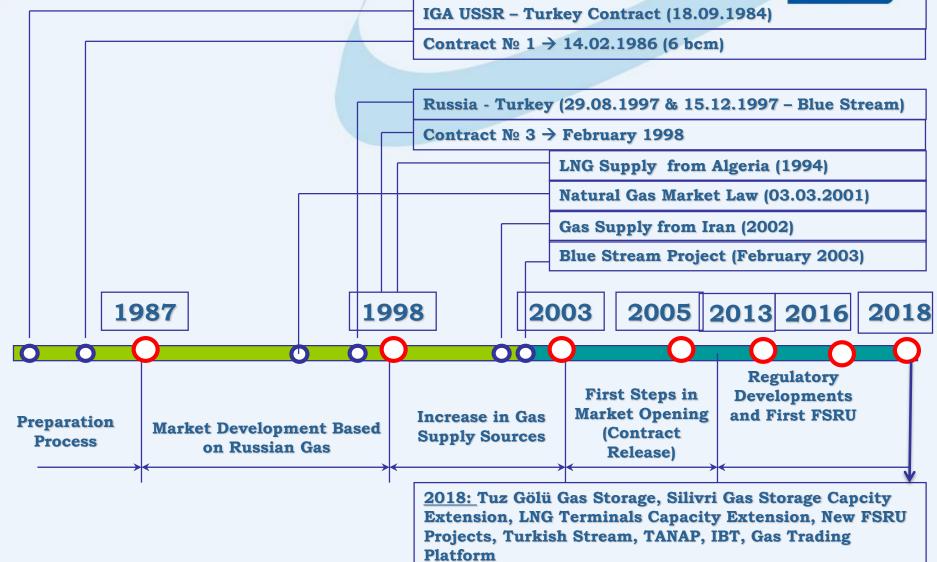
- AKENERJİ
- AKMERCAN ENERJİ
- AKFEL
- AKSA
- ALPIQ
- ALADDIN MIDDLE EAST
- ATLI ENERJI
- AVRASYA GAZ
- AYGAZ DG
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- PERENCO
- RWE
- SHELL ENERJİ
- SHELL UPSTREAM
- SISECAM ENERJI
- SOCAR
- TEKFEN
- THRACE BASIN
- TRANSATLANTIC
- **PETROLEUM**
- TURCAS
- VALEURA ENERGY
- VOLT ENERJİ
- YETAŞ

Gas Market Development Process





**Source: PETFORM** 

# The Share of Energy in Turkey's Total Imports (2011 – 2018)



(billion USD)	2011	2012	2013	2014	2015	2016	2017	2018
Crude Oil and Petroleum Products	29,2	31,5	29,4	27,1	17,7	13,1	18,5	21,9
Natural Gas	20,2	23,2	21,2	23,1	16,1	11,3	15,1	17,9
Coal	4,1	4,6	4,3	4,6	4	2,7	3,1	3,1
Total Energy Import	54,1	60,1	<b>55</b> ,9	54,8	37,8	27,1	37,2	42,9
Turkey's Total Import	240,8	236,5	251,6	242,1	207,2	198,6	233,8	223,1
Share of Energy in Turkey's Total Import	%20,5	%23,1	%22,2	%22,6	%18,2	%13,6	%15,9	%19,2

# Gas Import Sources of Turkey (2014-2018)

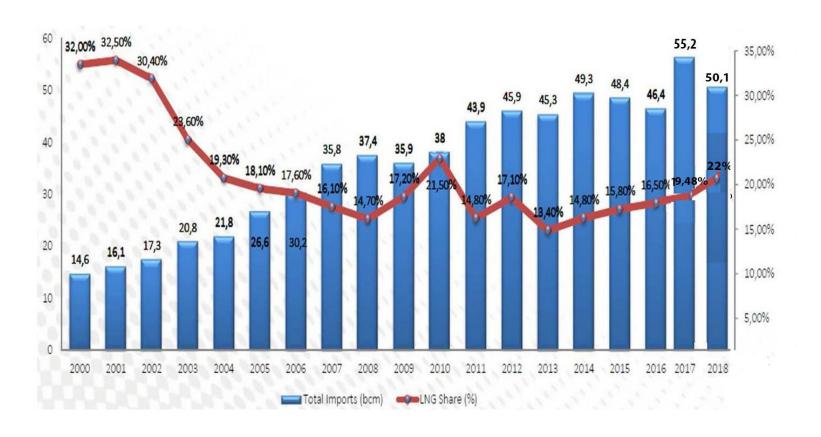


(bcm)	2014	2015	2016	2017	2018	Share in Overall (2018)
Russia	26.975	26.783	24.534	28.690	23.642	47 %
Iran	8.932	7.826	7.719	9.251	7.862	16 %
Azerbaijan	6.074	6.169	6.479	6.544	7.341	15 %
Algeria (LNG)	4.179	3.916	4.059	4.617	4.599	9 %
Nigeria (LNG)	1.414	1.240	1.078	2.080	1.746	4 %
Spot LNG	1.689	2.493	2.483	4.068	4.977	9 %
Toplam	49.262	48.427	46.352	55.250	50.168	

**Source: EMRA** 

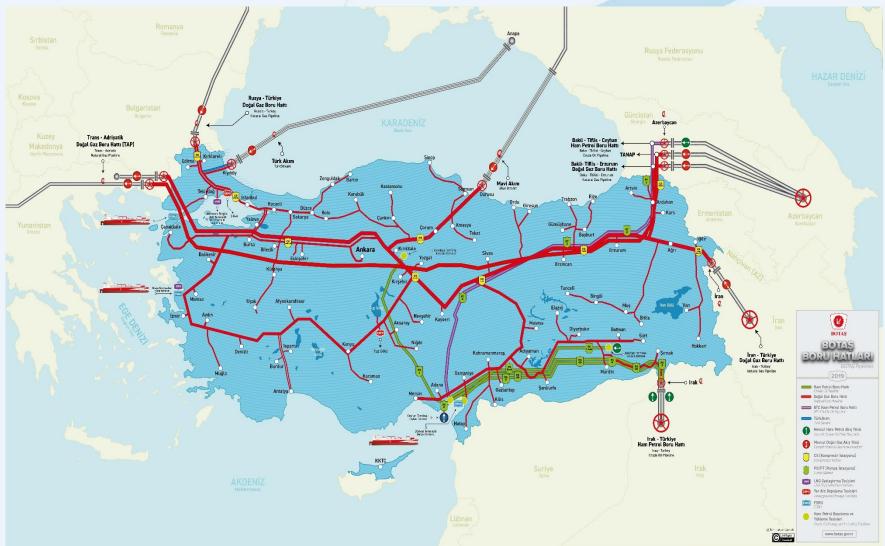
# LNG is Gaining Ground Again (2000-2018)



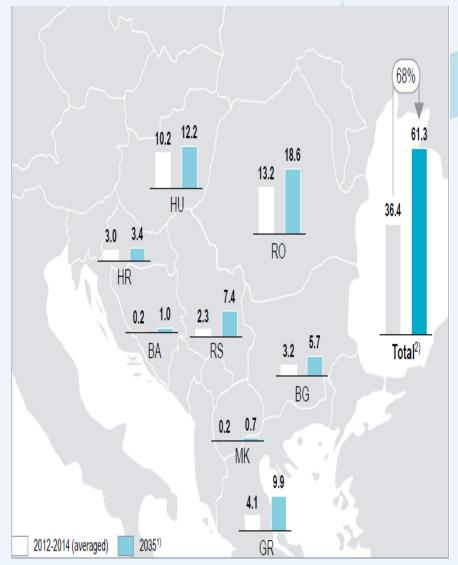


### Gas Infrastructure Map





# SEE Supply & Demand Gap and Interconnectivity





# Can Turkey be Flexibility Provider for SEE Region?

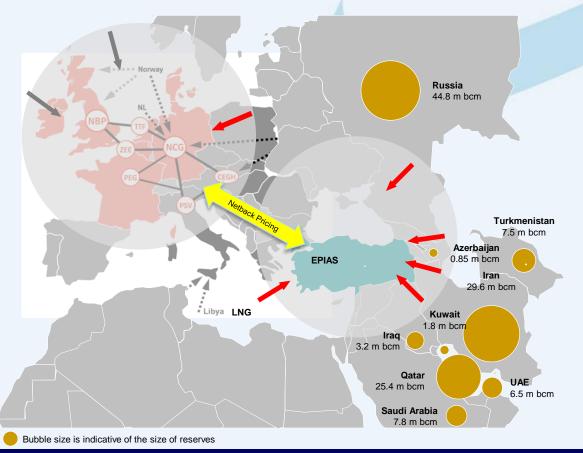


ENTRY POINTS	2017	2018	2019	2020	2021	2022	2023
MALKOÇLAR-BALKAN	51,4	51,4	51,4	14,7	14,7	14,7	14,7
DURUSU-BLUE STREAM	48	48	48	48	48	48	48
GÜRBULAK-İRAN	28,5	28,5	28,5	28,5	28,5	28,5	28,5
TÜRKGÖZÜ-SHAHDENİZ	19	19	19	19	19	19	19
ESKİŞEHİR-TANAP	0	5,7	11,3	14	16,4	16,4	16,4
TRAKYA-TANAP	0	0	0	0	8,2	8,2	8,2
KIYIKÖY-TURK STREAM	0	0	0	46,9	46,9	46,9	46,9
M. EREĞLİSİ LNG	22	37	37	37	37	37	37
ALİAĞA LNG	24,5	40	40	40	40	40	40
ALİAĞA FSRU	20	(20) 14,1	14,1	14,1	20	20	20
SAROS FSRU	0	20	20	20	20	20	20
DÖRTYOL FSRU	0	20	20	20	20	20	20
AKÇAKOCA-TP	0,36	0,36	0,36	0,36	0,36	0,36	0,36
GELİBOLU-MARSA	0,42	0,42	0,42	0,42	0,42	0,42	0,42
K. MARMARA	25	25	25	50	75	75	75
TUZGÖLÜ	13	20	20	30	80	80	80
TOTAL	252,18	329,48	335,08	382,98	474,48	474,48	474,48

**Source: BOTAS** 

# Is Gas Cooperation Between SEE and Turkey Possible?





- 8 MajorEuropeanTrading Hub
- Trading on OTC's via Brokers
- Trading on Energy Exchanges

When Turkey completed structural reforms, Turkish natural gas market will be integrated with European trading hubs and generate reference price for natural gas trade in the region.

### **Price Comparisions**

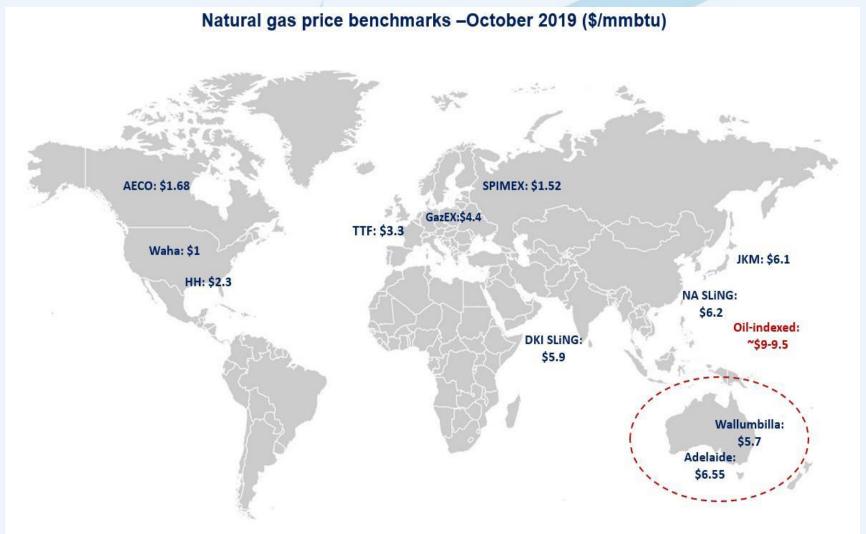
SOURCE: ICIS, BOTAS, Bulgartransgaz





## **Spot Contracts vs Long Term Oil Indexation**





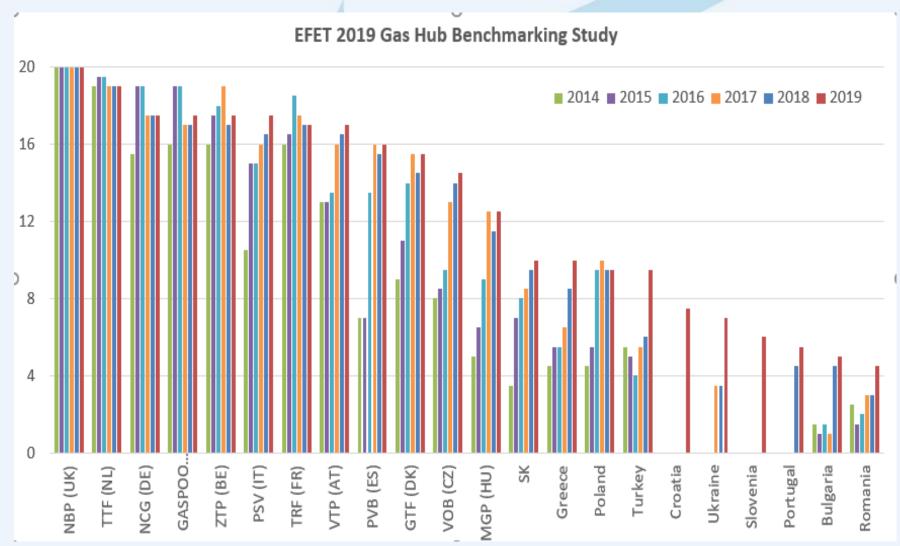
#### Hub Prices vs. Turkey Domestic Gas Prices





#### Turkey's EFET Hub Score (2019)





**Source: EFET** 

### Prerequisities for Liberal Natural Gas Market



#### **Physical Infrastructure**

- Very well developed and maintained physical infrastructure
- No rectrictions and congestions to meet peak demand
- Cross border capacity development with minimum congestion
- New storage and LNG facilities for supporting supply security to seasonal and peak demands

#### **Regulatory Framework**

- -Policy drafting regulatory body should understand the real Dynamics of the Energy, TPA, Network Code, Independent TSO etc.
- Implementation of policies via EU directives.
- Monitoring of wholesale market integrity, competition (antitrust) and effective consumer interest protection is needed for competition
- -Unbundling of transmission and counteraction of incumbets' vertical dominance

#### Independence of Transmission System Operator

- -Appropriate capacity-booking model (entry/exit model, use it or loose it principle)
- Effective balancing mechanism
- Effective nomination processes
- Publicizied imbalance charging structures (not overly punitive)
- -Very well integrated storage injection and withdrawal processes to the transmission system
- -Transparent tariffs for system entry and exit

#### **Commercial and Market Conditions**

- -Formation and active promotion of common pricing reference
- Free day ahead and intraday price assessment mechanism
- Standart and commonly expected physical contracts
- No barrier for new entries
- No destination clauses
- Transparent price-discovery mechanisms / platforms ,functioning forward market
- -Good synchronization between balancing, nearby and forward markets
- -Stable financial and credit envrironment and mechanisms

### **Gas Import Contracts**



Supplier	Туре	Volume (bcm/yr)	Period (years)	Start Date	End Date
Russia (Balkan route)	Pipeline	4	23	1998	2022
Russia (Balkan route)	Pipeline	1	23	2013	2036
Russia (Balkan route)	Pipeline	5	30	2013	2043
Russia (Balkan route)	Pipeline	4	23	1998	2022
Russia (Blue Stream)	Pipeline	16	25	2003	2028
Algeria	LNG	4,4	30	1994	2024
Nigeria	LNG	1,2	22	1999	2021
Iran	Pipeline	10	25	2001	2026
Azerbaijan	Pipeline	6,6	15	2007	2022
Total		52,2		TO THE TOTAL PROPERTY OF THE TOTAL PROPERTY	



# THANK YOU... www.petform.org.tr eser.ozdil@petform.org.tr