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Prices | News | Analysis | Consulting

Turkey – Rising Ambitions

Aura Sabadus

Editor, Turkish Energy Hub Daily

London, 11 June 2013



Powering forward – the Turkish energy sector

ELECTRICITY

- Market developments
- Trading updates

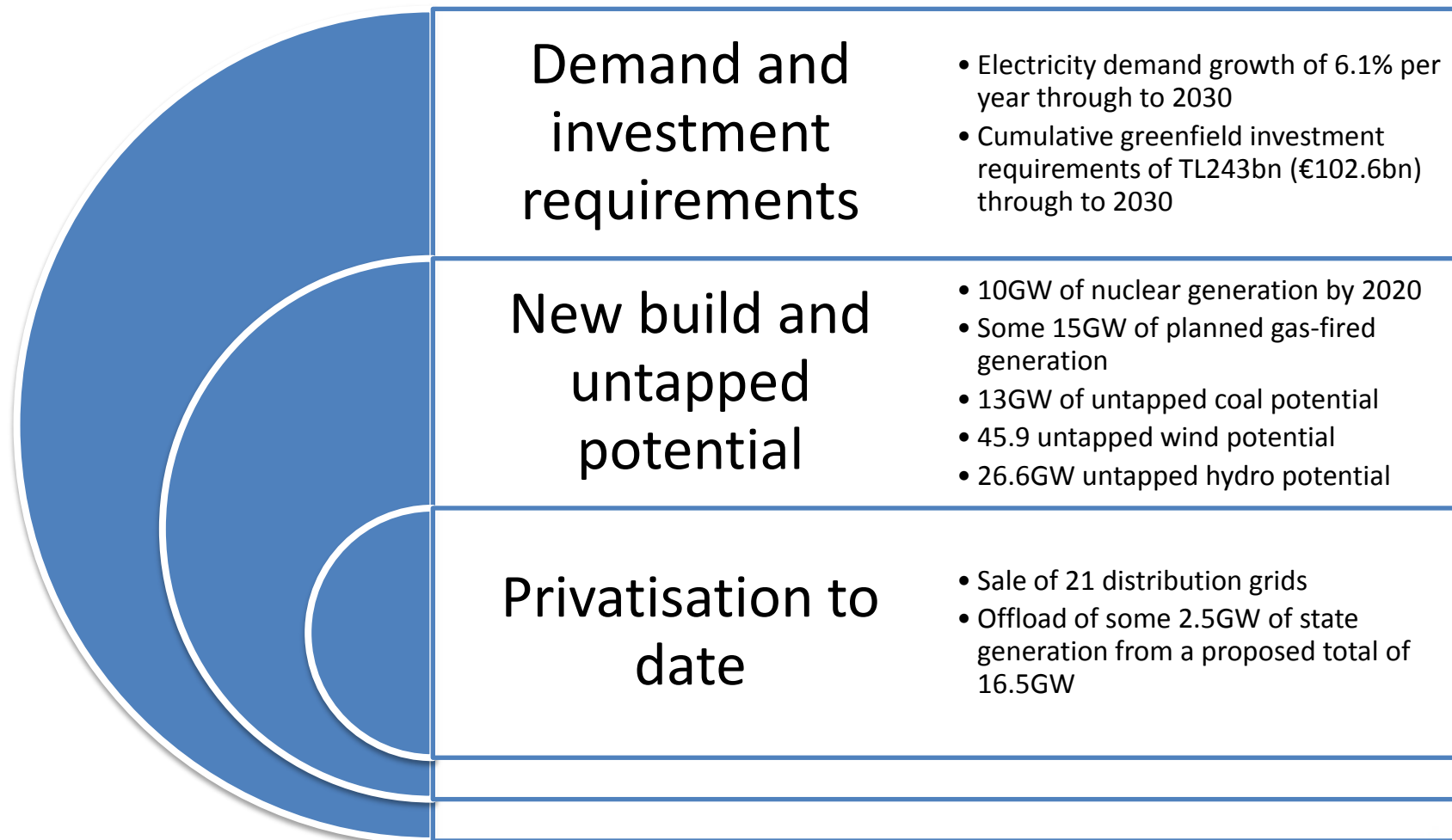
NATURAL GAS

- Market development and challenges
- The case for a liquid market

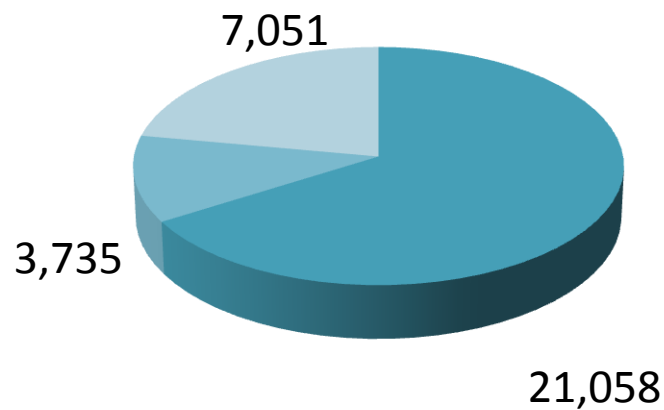
INTERCONNECTIONS

- The creation of an energy hub: achievements and challenges

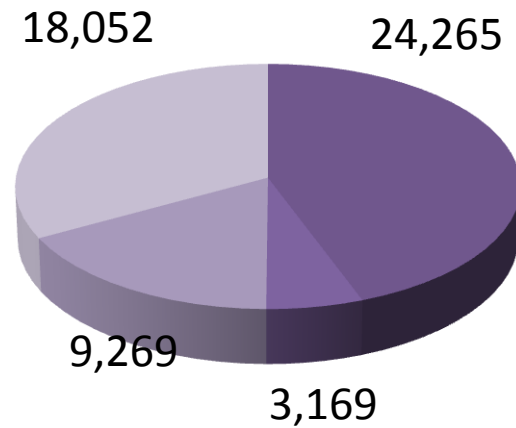
Development of the electricity market



Shift from state to private ownership 2002 – 2012



- 2002
- State-owned
- Autoproducer
- Privately contracted



- 2012
- State owned
- Autoproducer
- Private contracted
- Private

Market development stages

2006

- Introduction of a balancing mechanism

2009

- Day-ahead planning
- Balancing power market
- Hourly settlement

2011

- Day-ahead market
- Balancing power market
- Hourly settlements
- Collateral Mechanism
- ICIS starts first ever OTC price assessments
- Launch of cross-border auctions

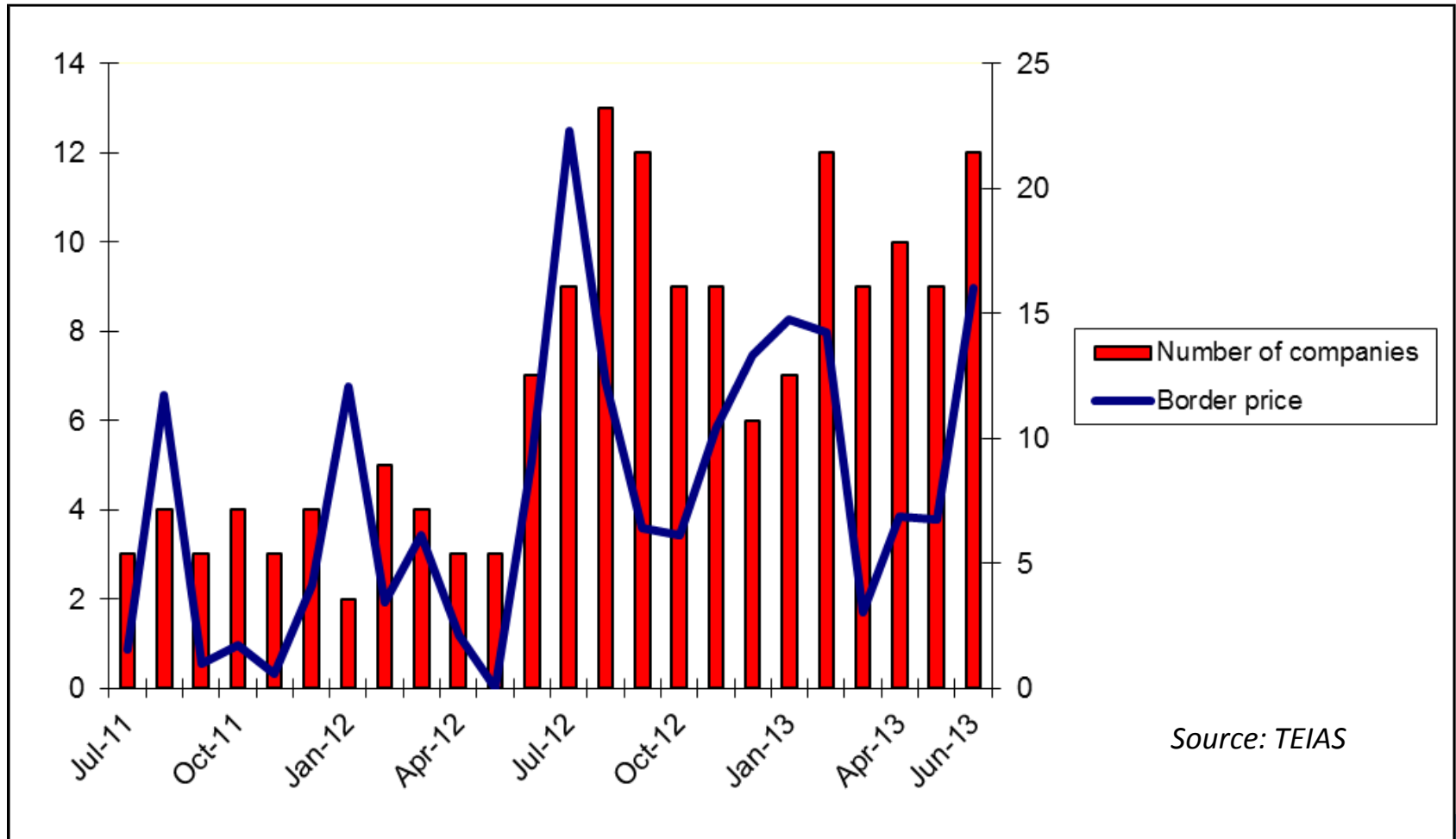
2012

- First over-the-counter (OTC) trades reported on broker screen

2013

- Amendments to the Electricity Market Law of 2001 are passed in Parliament
- Establishment of EPIAS, a cross-commodity exchange in charge of Day-ahead operations and with reduced state ownership
- Introduction of an intra-day market
- Creation on a futures market within the new Borsa Istanbul
- Operation of Balancing Market remains TEIAS remit

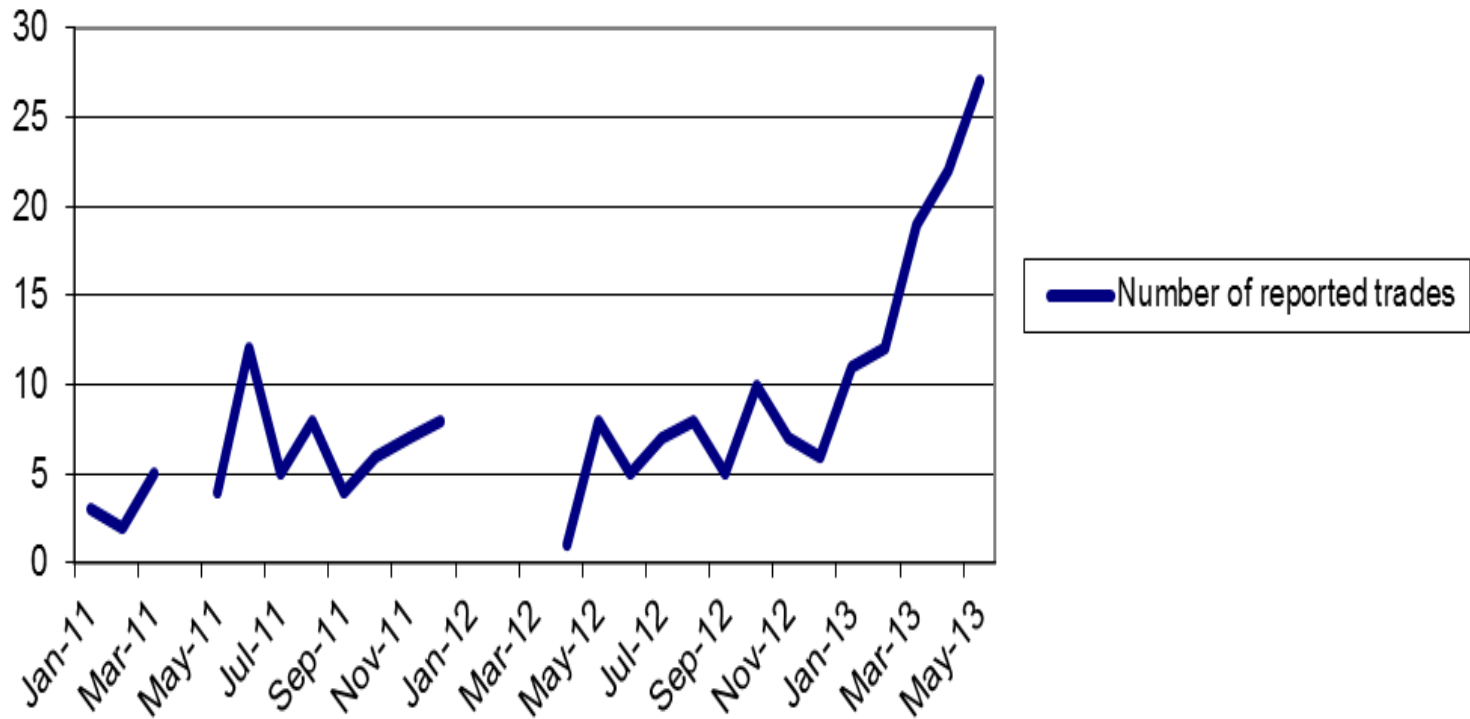
Trading activity on Bulgaria-Turkey border



Source: TEIAS

Bringing liquidity to the market

Reported bilateral and OTC trades January 2011 - May 2013

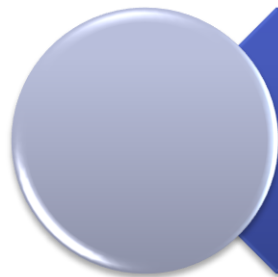


Source: ICIS

External and internal challenges



Security of supply concerns caused by internal technical constraints and regional political volatility which may affect steady and reliable gas flows



Existence of cross-subsidies which causes losses and hampers the liberalisation of the market



The retention of stamp tax – 0.948% of the value of any concluded deal. It has the potential to strangle the budding OTC market

Development of the natural gas market

2001

- Natural Gas Market Law requires the breakup of state company BOTAS on import, distribution, storage and sale of gas
- Stipulates the reduction of BOTAS market share to 20% by 2009

2004

- Network Code comes into force and lays out rules for access to the transmission and distribution network as well as Third Party Access (TPA) to the two LNG terminals Marmara and Aliaga

2005 - 2009

- BOTAS holds first tender for 4bcm/year for a period of 15. The first contract release to the private sector is enacted between 2007-2009

2012-2013

- BOTAS holds tender for second contract release for 6bcm/year and the transfer is enacted in 2013.
- BOTAS also announces a volume transfer for 1.2bcm/year which are released to the Turkish branch of SOCAR
- Turkey works on amendments to NGML
- Proposals to create a balancing market are now under consultation

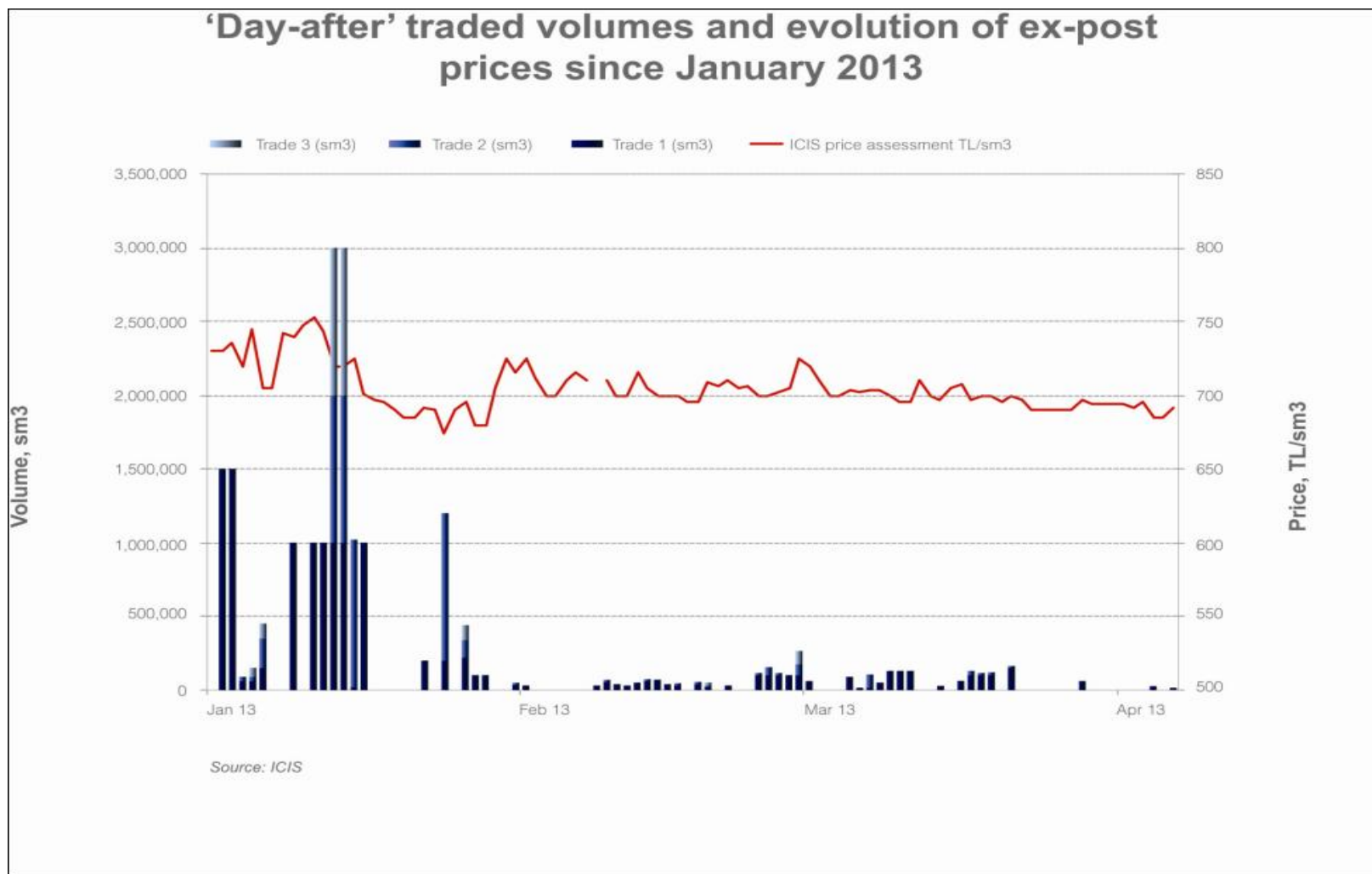
Private importers as of 2013

Importer	Volume bcm/year
Enerco Enerji	2.5
Bosphorus Gaz	2.5
Akfel	2.25
Batti Hati	1
Kibar Holding	1
Avrasya Gaz	0.5
Shell Enerji	0.25
SOCAR Gas Trading	1.2

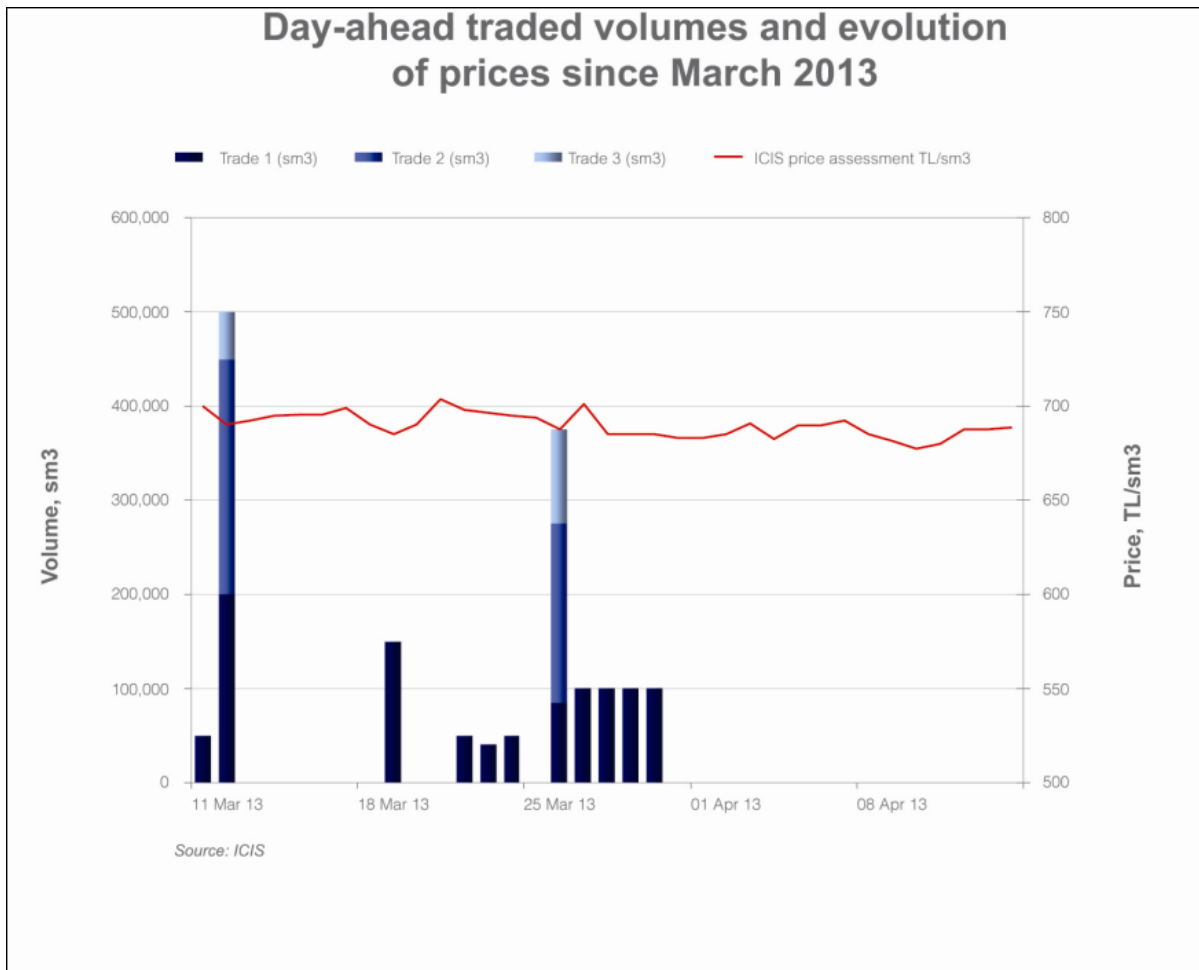
Source: EMRA

Market activity reported to ICIS since January 2013

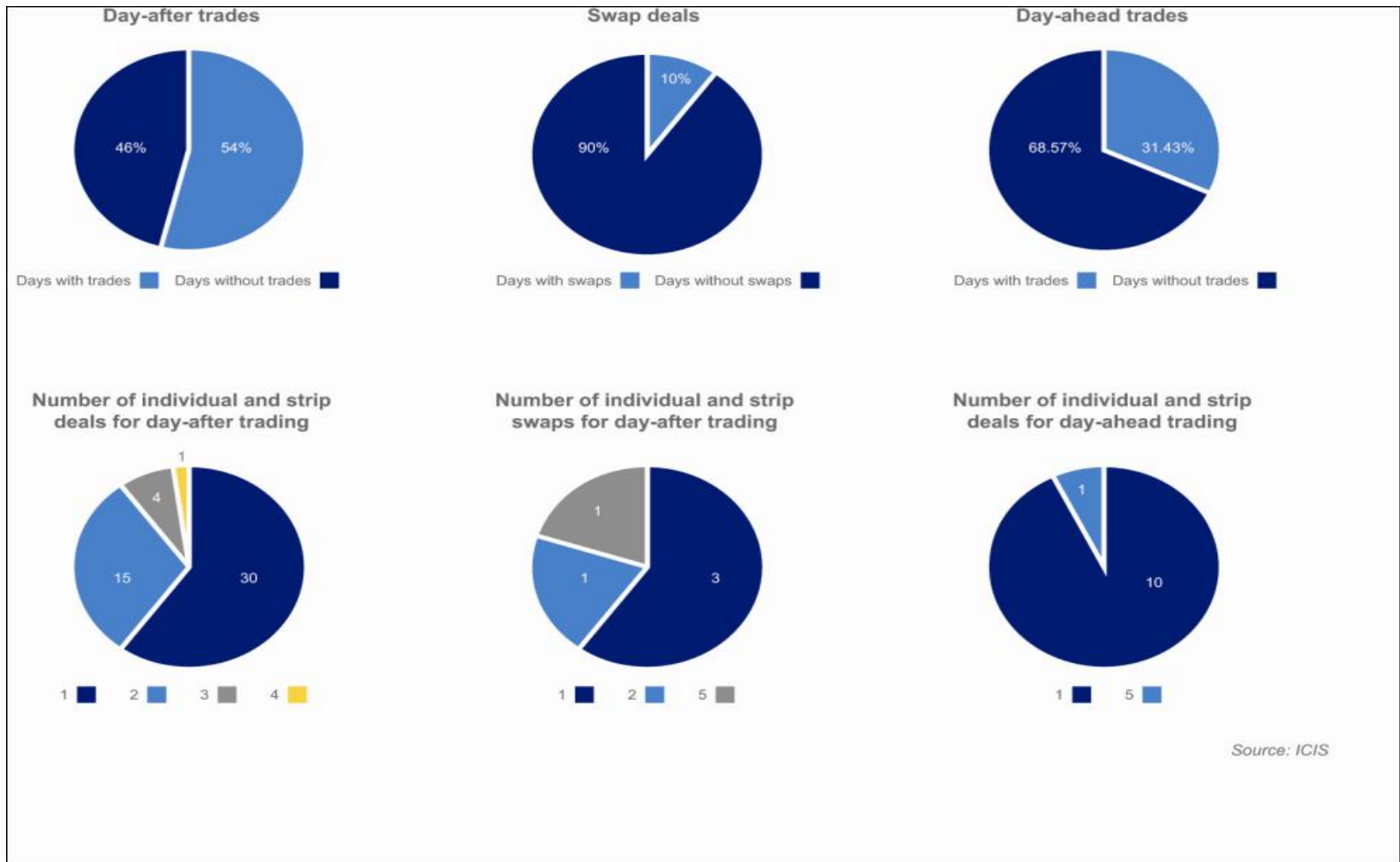
The balancing “market”



Activity reported to ICIS for the day-ahead market



Types of reported trades and swaps



Source: ICIS

External and internal challenges

Security of supply concerns caused by internal technical constraints and regional political volatility which may affect steady and reliable gas flows

Existence of cross-subsidies which causes losses and hampers the liberalisation of the market

Opaque price formation

Infrastructure constraints related to collection and publication of data

The retention of stamp tax – 0.948% of the value of any concluded deal. It is proving a serious stumbling block to the development of the OTC market

Expected market developments

- The creation of a balancing market that would establish a daily price. The regulator considers including a price floor and price ceiling to prevent manipulation attempts
- Creation of a day-ahead market on the newly-established EPIAS
- Ongoing amendments to the Network Code
- Further contract or volume releases from the BOTAS portfolio
- Improvements to the Electronic Bulletin Board – although the new infrastructure may prove controversial

Current and prospective electricity interconnections




Current and prospective natural gas pipelines



Pondering the future

- ACHIEVEMENTS:
- Turkey has made visible progress in privatising and liberalising its energy sector
- It is determined to create a southern counterbalance to the liquid northwest European energy markets
- It has ambitions to expand its influence in its hinterland and aspires to create a “Middle Eastern Union” underpinned by pragmatic interests
- QUESTIONS:
- Is it prepared to relinquish grip on the politically-driven gas sector in favour of the gas sector?
- Is it prepared to enact bold measures such as phasing out subsidies and stamp duty?
- What will be the palpable effects of the expanding influence of a Turkish energy hub?

Bringing transparency to the market – Turkish Energy Hub Daily (TEHD)



TEHD PROTOTYPE.001 | 07 March 2013 | Published by ICIS | www.icis.com/energy | **PRO Data used for illustrative purposes only**

Turkish Energy Hub Daily

Energy Prices | News | Analysis

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Market summary
 ■ Gas and LNG: Turkish exports to Greece and Bulgaria grown 9%
 ■ Power: Spot drops March lower, curve unaffected
 ■ Bulgarian energy reforms threaten free market

Markets at a glance

Daily

ICIS LNG SPOT DCS ASSESSMENTS, \$/MMBTU

Location	Apr '12	Day on Day DIF	GAZ Spread	NEP Spread
Turkey	13.000	0.000	4.188	2.856

ICIS TURKISH GAS PRICE ASSESSMENT, 28 FEBRUARY 2013

Period	Bid	Offer	DIF	Midpoint	DIF	Midpoint	DIF	Midpoint	DIF
Day-7 Ex-Post	705.000	715.000	10.000	36.520	0.520	28.400	0.400	10.650	0.150
Day-ahead	691.000	711.000	-5.000	36.452	-0.260	28.040	-0.200	10.515	-0.075

ICIS TURKISH POWER PRICE ASSESSMENT

Period	Bid	Offer	DIF	Change %	Midpoint	€/MWh	DIF
Week 11 2012	125.000	145.000	n/a	n/a	58.800	n/a	
April 2012	129.500	139.500	n/a	n/a	56.450	n/a	
Q2	129.000	149.000	7.500	-4.79%	60.480	2.150	
Q3	166.000	171.000	2.000	-1.16%	70.770	0.840	
Q4	155.000	165.000	2.500	-1.49%	67.200	1.050	
Q1 2014	152.000	162.000	-1.500	0.93%	65.940	-0.630	
Rolling Year from 1 Apr 2012	153.000	163.000	2.000	-1.21%	66.360	0.840	
Year 2014	146.500	156.500	n/a	n/a	63.630	n/a	

ICIS CRUDE OIL PRICE ASSESSMENTS, \$/BBL

Grade	Assessed	DIF	Versus Dated Brent
Kirkuk FOB MED	107.890	0.160	2.550
Saharan FOB MED	110.940	0.060	0.500
Azpet Light CIF Augusta	112.640	-0.140	3.200
Iranian Light FOB MED	105.940	0.160	-4.500
CPC Blend CIF Augusta	109.640	0.060	-0.800
Urals MSD (80) CIF Augusta	108.090	0.160	-2.250
Urals MED (140) CIF Augusta	107.540	0.160	-2.900

ICIS PHYSICAL COAL INDEX, \$/TONNE

Contract	Month	Index Price	Volume	No. of Trades
DESARA	February 2012	88.038	450	9

Turkish Energy Hub Daily

Weekly

Gas and LNG

Moderately lower gas prices

Gas prices were assessed moderately lower on Friday as participants agree that the system is fairly relaxed in the absence of strong demand from the power sector.

Companies took the view that the day-after price for the first day of March should hover within the TL700.000/1000m³ - TL720.000/1000m³ range, pointing out that there were ample supplies in the system.

As hydro generation is currently working at full throttle, thermal generation has either been switched off or some plants are entering their maintenance. ICIS understands that 4 TCCM of generation is off line this month and just over 3GW are expected to be switched off in April.

Similarly, day-ahead prices for Saturday were slightly lower as the weather remains mild for this time of the year. The 162,400 cubic metre GDF Suez Paris is expected to arrive in to Alaga on Saturday. The cargo which is thought to have priced up from Yemen is part of a 5-string deal negotiated by the incumbent BOTAS with GDF Suez last December. The cargo price is thought to have been negotiated at the NEP January price plus \$1.5MM/Btu minus a \$0.05MM/Btu discount which GDF Suez is thought to have agreed to grant to BOTAS. The price can be set by the authority concerned with the cargo purchase.

EXPECTED LNG ARRIVALS

Name of Ship	Cargo capacity	Spot/Contract	Sold by	Port	Date of Arrival
Mitsubishi Ben Buaiant	125,200	contract	Sonatrach	Marmara	15/02/2013
BW GDF SUEZ Paris	162,400	spot	GDF SUEZ	Alaga	05/03/2013
Al Orag	205,994	spot	ReGas	Alaga	02/03/2013
Mitsui Oilsuichi	126,190	contract	Sonatrach	Alaga	24/02/2013
LNG Breeze	146,000	contract	RMG	Marmara	23/02/2013
Geosky	154,500	spot	GDF SUEZ	Alaga	14/02/2013
Bachy Caland	129,767	contract	Sonatrach	Marmara	12/02/2013
Excelsior	138,000	spot	GDF SUEZ	Alaga	10/02/2013

TURKISH TRADES REPORTED 1 MARCH 2013 - 7 MARCH 2013, TL/MMWh

Transaction date	Price	Volume	Delivery date	Leadshape	Confirmed	Notes
07 March 2013	130.00	10MMWh	01/04/13-29/04/13	Besteast	Yes	
07 March 2013	126.50	5MMWh	01/04/13-29/04/13	Besteast	Yes	
07 March 2013	124.50	5MMWh	01/04/13-29/04/13	Besteast	Yes	
06 March 2013	129.75	10MMWh	01/04/13-29/04/13	Besteast	Yes	

Power

Curve lifted by bullish spot, forecast outages

Unexpectedly high delivery values on the PMLM exchange offered a lift to curve contracts, as participants factored in expected cuts on production and lower temperatures.

With spot prices out-turning on average Turkish lira (TL) 17.00MMWh higher than the market's expectations for the month of TL127.50MMWh, companies took more bullish views on the front contracts.

This was most obvious for the front quarter, which ICIS assessed TL17.50MMWh up on the previous week.

Some participants attributed the higher prices to cooler temperatures and plant outages throughout March and April. ICIS understands that As a result, a drop in hydro generation could lead to moderate price increases for the spring month contracts. But another source was keen to refute that view, pointing out that the inflow to run-off river plants was healthy and therefore ample generation may keep a lid on prices.

Companies said there was buying demand for April, but there were no sellers as they were trying to hedge their positions.

There was some agreement that the currently high PMLM levels may be triggering some bullish ripple along the further-dated contracts. One company considered that increased spot buying had pushed up PMLM prices as market participants had refrained from looking in volumes on the bilateral market for March.

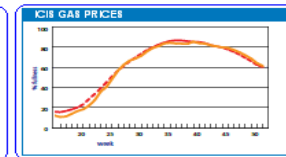
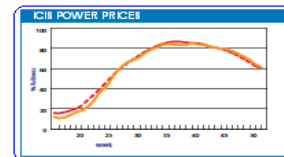
"They left positions open and then needed to buy on the exchange," one source said. This, he said, was reflected in higher volumes on PMLM, averaging 152,000 MWh per day so far in March, compared with 142,000 MWh per day in February.

Although there were no obvious fundamental drivers to justify the moderate drop, the assessments submitted to ICIS suggested that the market was expecting cheaper values next winter, mirroring prices seen so far this year.

Azra Sabudus/Martin Dugan

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Turkish Energy Hub Daily at a glance

Turkish Energy Hub Daily

Comment

Are regulated markets a valid model?

With European economies in a funk after the 2008 financial meltdown the question that arises is whether markets untried by government intervention can still offer a valid model. After all the battered image of government-rescued banks and the deep recession triggered by the debt crisis in the western world come in sharp contrast with the consolidation of state-owned champions and the emergence of stricter regulated markets.

The question is especially pertinent for Turkey and in particular with regards to its energy sector where privatisation and liberalisation are now highly topical issues. Yet, although the government recognises the need for a liquid electricity and gas markets, it also fears implicit security of supply risks at a time when energy inflows are a prerequisite for its strong economic growth.

The dilemma is best reflected in the government's hesitant approach regarding the elimination of the subsidies system which holds captive nearly three quarters of the gas sector, half of the electricity market and causes state-owned energy companies to lose cash. BOTAS, the state gas incumbent has managed to secure volumes from Russia, Iran, Azerbaijan as well as LNG from Algeria and Nigeria, but last year's winter crisis when supplies dropped to critical levels causing a string of blackouts proved that the energy sector was in need of reform if Turkey was serious about meeting its soaring demand.

The crisis highlighted the fact that only a flexible and efficient system based on private initiative could offer a fitting solution to demands stemming from high demand, substantial investment needs and political challenges.

Over the next ten years Turkey expects to see its gas demand double to 87 billion cubic metres annually and its electricity consumption to grow at a minimal annual rate of 6%. The diversification of the fuel mix for power generation by encouraging nuclear, renewable and lignite production will help the country not only to respond to growth, but also to spread the risk stemming from overreliance on natural gas. However, arguing that Turkey can move away from hydrocarbons at a time when new oil and gas resources are coming on stream in neighbouring Middle East and Caspian regions would mean to turn a blind eye to the vast potential that Turkey could tap into. For that reason, Turkey's gas sector must be given special attention and private domestic and foreign companies should be given free rein to invest in anything ranging from imports to infrastructure. With a unique geography and high economic growth, Turkey could become Europe's largest importer of LNG. The fuel could have offered a quick and efficient relief when the pipeline system became critically tight last winter. However, although there were nearly

20 companies licensed to import LNG none could do so because the current cross-subsidy system places BOTAS in a position to undercut any private players and offers them few incentives to take active positions. Going free rein to the private gas sector would involve establishing an effective environment by eliminating the cross-subsidy system and creating a lean and efficient incumbent which can compete on a level playing field with all other private participants. The scrapping of cross-subsidies is undoubtedly a difficult task and will largely depend on parallel reforms in the welfare system. However, Turkey has already offered tangible proof of its ability to introduce sweeping reforms by overhauling its health care which is now pursuing medical excellence. Similar reforms must be enacted in the energy sector as well.

Offering real support to the private energy sector would also attract substantial investments at a time when Turkey needs up to €132bn by 2030 to expand its electricity and gas infrastructure. Turkey has already managed to privatise large swathes of gas and electricity distribution networks as well as off-grid state-owned generation. However, there is evident need for new pipelines, compressor stations, gas storage, LNG terminals, a more secure electricity transmission and distribution systems. The cash can only come from domestic and foreign investors. In order to attract their interest, Turkey must create viable markets where trading happens unencumbered by burdening taxes and according to the demand and supply logic rather than government intervention. In this context it is important that Turkey scrap a cumbersome stamp duty that represents 0.94% of the value of any concluded deal. Such taxes may have the short-term benefit of replenishing government coffers, but the long-term disadvantage of discouraging investors.

The real opening up of markets and the creation of a competitive business environment would help to transform Turkey's energy sector and from one dominated by political uncertainty to one driven by private initiative. Private enterprise is by nature creative and open-minded in its pursuit for profit. A flourishing private sector can help Turkey to build strong links with neighbouring regions and help to buffer it from the political volatility that emerges as a result of inter-state dynamics. The creation of an integrated Turkish-Caspian-Middle Eastern-European energy market should be a long-term goal for Turkey.

Finally, the creation of a competitive market environment driven by private initiative will be the natural corollary of the Turkish trading acumen. Hampering it would mean to place a nation born to trade in an unfruitful straitjacket.

Fortnightly

Turkish Energy Hub Daily

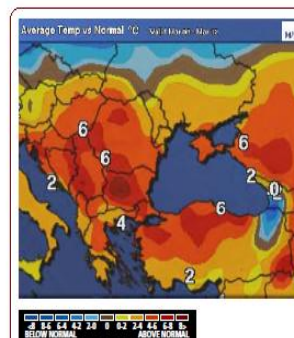
Power Plant Outages

Daily

CURRENT GERMAN PLANT OUTAGES: 10 APRIL 2013 (AT 16:00 UK TIME)						NEW AND UPDATED OUTAGES IN BOLD>	
Plant	Company	Unit	Fuel	Shutdown Period		Notes	
				Start	End		
Bergkamen	RWE	717	Coal	08-Apr-13	11-Apr-13	Boiler maintenance	
Dornagen	RWE	186	Gas	19-Apr-13	29-Apr-13	Maintenance	
Frimmersdorf Q	RWE	278	Lignite	17-Apr-13	03-Jun-13	Maintenance	
Gentferwerk F	RWE	410	Gas	02-Apr-13	10-May-13	Maintenance	
Gentferwerk G	RWE	410	Gas	01-Apr-13	03-Sep-13	Maintenance	

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Turkish Energy Hub Daily



Daily

Days 1-5 Outlook: 8-12 March

- High pressure dominating with low pressure to the NW of Britain. Generally dry weather with light to gentle winds and above normal temperatures.
- Mean temperature anomalies +1°C to +4°C in the SE and up to +6°C over central Scandinavia.
- Mostly normal to below normal precipitation. Windy over Britain with above normal precipitation, except over SE England. Sunny and dry weather over Iberia giving way to cloudy and wetter weather from Wednesday with above normal precipitation in the NW and a cooler NW flow following.
- Mean anomalies 0°C to -1°C. Low pressure passing over S Italy will cause above normal precipitation and spread to Greece later. Generally cloudy across northern Europe.

Days 6-10 Outlook: 13-17 March

- High pressure moving to the NE with low pressure spreading across western Europe. Generally cloudier and wetter weather and lowering temperatures in the west.
- Overall gentle winds, but westerly at times across central Europe as the low moves westward. Mean temperature anomalies +2°C and +4°C in the SE and over Ireland, but 0°C to -2°C over western Europe.
- Around normal to above-normal precipitation, but well above across the Central Massif of France and the Alps to SE Europe.
- For eastern Europe normal to slightly below normal precipitation. Remaining mostly cloudy across northern Europe with poor solar power production, but improving over Britain in a drier NW air flow.

Weather forecast graphics and commentary provided in this publication are supplied by Weather Services International (WSI). WSI provides a wide range of pan-European weather forecasts, commentary and graphics specific tailored to the energy marketplace. For additional information or a complete list of our energy related products please email info@wsiconsulting.com or visit www.wsiconsulting.com.

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Turkish Energy Hub Daily

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Thank you!

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