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## Letter From the Editor

USAK, the International Strategic Research Organization (ISRO) has launched a new information, news and commentary service, the "Energy Review", an important step in the enlargement of the competencies of USAK.

Energy has always been an important topic in the study of strategic and international issues but most of the time, it has been studied as one of the factors affecting the issues of high politics. This time we are attempting to study energy with main emphasis on developments in Turkish energy sector. We will attempt at following the current developments in the world of energy not only of hydrocarbons and natural resources but also of electricity, energy technology, companies and system operations as well. Energy Review will be an open ended publication intended to keep our audience informed about the developments in the natural gas, petroleum, electricity markets in Turkey and around the world.

Please keep in mind that, this modest start of an English language Turkish Energy Review is open for your comments and articles.

Best Regards.

Editor

## Iran's "Act of Gas"



The story broke out on the 3rd January 2007. "Iran Cuts Gas Supplies To Turkey To Meet Domestic Demand", Baku Today reported. "Iranian authorities say the country has stopped supplying natural gas to neighboring Turkey in order to meet growing demand at home this winter, Radio Farda reports." reads the news.

However, from the Turkish Energy Minister Hilmi Guler's statements from 4th January, it is understood that the gas disruption has started from the mid December. Guler said: "... Only in Iran, because of cold weather and underinvestment there are problems. We were living with these disturbances for the last 15-20 days, but we never let anyone to feel the disruptions...."

### Iranian Side

A report by academic Roger Stern at U.S. John Hopkins University last week predicted Iran's exports could dwindle to almost nothing by 2015 if it did not change its energy policies.

"The short story is that every aspect of the oil infrastructure has been starved - drilling, refineries, distribution, even the gas stations in Iran," Stern told Reuters in a telephone interview on Thursday.(Zaman).

That means Iran's gas production is suffering from underinvestment. Also the inefficient use of its natural resources amplifies the problem. Being at odds with the Western world, China seems the only foreign investor likely to rescue Iran from underinvestment.



On 20 December, Iranian government and China's biggest offshore oil producer CNOOC have signed a \$16-billion gas deal according to Iranian news agency Mehr.

Chinese news agency Xinhua said the deal covered development of Iran's north Pars gasfield and building facilities to liquify natural gas for exports to China and that these activities would take 8 years. CNOOC, parent of New York-listed 0883, would build the liquification facilities and take a 50 percent share in the produced LNG, Xinhua said(Reuters 22 December).

The project involves an investment of more than 16 billion U.S. dollars, of which 11 billion dollars will be spent on the downstream segment and the rest on the upstream segment. (China Daily). The agreement between Iran and CNOOC comes after the Islamic nation signed a \$100 billion, 25-year contract with China's Sinopec for the production and export of LNG in late-2004.

This will provide China with 150,000 barrels of oil a day and 250 million tonnes of liquefied natural gas over the next 25 years.(The Australian)

Iran is the 4th biggest net oil exporter and producer in the world.

Iran's 7 million cars consume around 420,000 bpd of gasoline, around the same amount as Britain with 35 million cars, Deutsche Bank claims

Iran is the 3<sup>rd</sup> third-biggest source of China's oil imports, providing 12% of the total in the first 10 months of 2006, behind Angola and Saudi Arabia. Russia comes next. (The Australian)

Inbrief, the underinvestment Iran suffering from has found a cure from China, but for this year and next few years the shortages are expected to continue.

## Turkish Side



Mr. Guler and Turkish Pipeline company (BOTAS has managed the the crises adequately. Currently Turkey is exporting 20% of its natural gas from Iran. Guler said, "27 Million cubic meters has decreased to 2 million cubic meters, for days we didn't let you feel this".

In terms of GDP/per  
Barrels  
UK : 3393  
Turkey: 1159  
Iran: 310.4

Botas has bought LNG from spot markets while increasing gas supplies from Russia. Gasprom has increased its daily natural gas exports to Turkey by 14 million cubic meters to 84 million cubic meters.(RIA Novosti) Turkey has bought LNG from Nigeria and Algeria. According to sources, 7 extra LNG carriers are on their way to Egegaz's LNG port in Aliaga, Izmir.

## Crises?

Turkey currently exports 27 million cubic meters of natural gas daily from Iran under normal conditions.

So far the peak natural gas consumption in Turkey has been 126 million cubic meters daily last year. Estimates for this year is around 135 million cubic meters according to Botas.

Generally, the experts point to second half of January for observing peak consumption.15 January-15 February period is therefore a critical period for Turkey.

If a shortage happens, Turkey will probably decrease the gas supplied to the power plants. Currently Turkey's 31.7 percent of electricity comes from plants using natural gas. So residential customers are not expected to face with any crises.

32% of the Turkish electricity production is based on natural gas

There are no shortages yet, but there is an increased probability of gas supply disruption. Turkish officials seem like controlling the situation. In case any crisis happens, it is expected to be a minor one.

## Result

According to daily Cumhuriyet, there is an international arbitration going on between Iran and Turkey due to previous disruptions. And Botas underlined that this is not a force majeure (Act of God according to Iran) case.

Turkey's peak daily consumption of natural gas is 126 million cubic meters

However, Turkey will continue to buy gas from Iran and Iran is expected to suffer from investment. As a result, more of these crises may happen.

The LNG solution may save the day, but the cost of spot LNG is much higher than the Iranian gas. The only option is to reduce the ratio and partially backup Iranian gas exports for the coming years.

As a country suffering already from high energy prices, the debates about energy independence and nuclear is expected to rise within this month.

*Note: By 7.1.2007, Sunday morning the gas flow has started from Iran.*

## Turkey's Privatization Dilemma in Electricity Distribution

August 31, 2006, the process to privatization of 3 regions has started.



As is widely known by the participants in the market, the electricity distribution privatisation process kick started with the High Planning Council Decision of 17.03.2004 which created 20 new distribution companies from within the body of TEDAS, the Turkish

Electricity Distribution Company owned by the state, is materialized by the tender announcement of the privatization administration, on August 31, 2006, for the privatization of Başkent Elektrik Dağıtım A.Ş., Sakarya Elektrik Dağıtım A.Ş. and İstanbul Anadolu Yakası Elektrik Dağıtım A.Ş. through block sale of 100% of the management shares of these companies in accordance with the provisions of Law no. 4046.

Başkent Elektrik Dağıtım A.Ş. operates the following cities; Ankara, Kırıkkale, Zonguldak, Bartın, Karabük, Çankırı and Kastamonu which are in central anatolia. Sakarya Elektrik Dağıtım A.Ş. operates the densely industrialized cities of Sakarya, Bolu, Düzce and Kocaeli and İstanbul Anadolu Yakası Elektrik Dağıtım A.Ş. runs the İstanbul Anatolian District.



Prequalified contenders include EON, ENEL, ENBW, AES, Iberdrola...

The Privatization Administration (ÖİB) has carried out prequalification and many foreign investors have jumped onto the next stage of bid submission which will continue until January 19<sup>th</sup> 2007. Prequalified contenders are many giant domestic and foreign companies or consortia such as the following : Sabancı, Zorlu, Koç, Ciner, , Unit-Doğan-Doğuş-Anadolu Group, ENBW Energie, Baden-Württemberg AG, Habaş Sınai Ve Tıbbi Gazlar İstihsal Endüstrisi A.Ş, Limak, Akenerji, Nurol Holding, Iberdrola S.A.-Çalık Enerji Sanayi, Park, Eren, Hema, Yüksel, Barmek, AES Amsterdam Holding, Novosibirskenergo Enerji, Eksim Dış Ticaret A.Ş. - Kuveyt Türk Katılım Bankası A.Ş. Ortak Girişim Grubu, İç-İçtaş İnşaat Sanayi , Prisma Energy Global Services Limited, Gama Enerji A.Ş.- General Elektrik Ticaret ve Servis A.Ş. Ortak Girişim Grubu, Suez-Tractebel Enerji Ticaret A.Ş., Eon, Enel, and, Enka.

Erdogan: "We do not consider electricity privatizations, at the moment, because we cannot know how much the private sector would care about the strategic aspects of the issue".

But in the midst of all these developments Prime Minister Recep Tayyip Erdoğan has said on the way back from Lebanon that there would be no electricity privatizations. Erdoğan said, "We do not consider electricity privatizations, at the moment, because we cannot know how much the private sector would care



about the strategic aspects of the issue ".

PM Erdoğan said citizens held the government responsible for gasoline price hikes, despite they had nothing to do with it, and the same may happen in the electricity prices, adding, "We are taking the power transmission cables to the underground. This is a very big project. The privatizations are after this project; let much infrastructure investments not be left for the private sector. ". (The New Anatolian)

Unakitan: "On Monday, I hope the prime minister will inform and command us before, during, or after the Cabinet meeting. "



Finance Minister Kemal Unakitan(responsible from the Privatization Administration) has carefully commented on Premier Recep Tayyip Erdoğan's statements on electricity privatizations, saying although there has been no cancelling of the electricity privatizations on the agenda at the moment, "On Monday, I hope the prime minister will inform and command us before, during, or after the Cabinet meeting. "

Unakitan replied reporters in Ankara, and said he did not talk to the premier on this issue, and he has no clear information, yet. The minister stated that he could not comment any further about the subject without contacting the prime minister first. Unakitan underlined that the premier's opinion was final, upon a reporter asking his personal view. (The New Anatolian)

Private sector have rushed to the officials of Energy Market Regulatory Authority (EMRA) and the Privatization Administration in order to check whether the news are genuine and some have commented if such an act happens then the confidence of the investors in the privatization process would diminish drastically.

Electricity generation in Turkey rose by 7.1 percent in 2006 to 174.1 bln kwh from 162.5 bln kwh over 2006.

Political considerations and legalistic attitudes have all created confidence problems in the privatization processes of other state owned enterprises in the 1980s. The news regarding this issue is expected to be clarified by the meeting of the council of ministers next week.

Electricity generation in Turkey rose by 7.1 percent in 2006 to 174.1 bln kwh from 162.5 bln kwh over 2006. EÜAŞ, the state power generation company, provided 46.7 pct of the national electricity generation total. Meanwhile, the electricity exports amounted to 2.2 bln kwh, while imports stayed at just 569.1 mln kwh.

## Rough Times for Petrol Ofisi

### Dogan Group's 2007 scenario

Doğan Holding's Strategy Group President Yahya Üzdiyen said they would continue investing in the energy and media sectors in 2007. Üzdiyen also said that they plan to make joint investments in the electricity generating and distribution fields with the UDDA consortium. "Our aim is to invest \$4-5 billion in the electricity field. We also plan to start investing in the refinery field. Turkey's economy will be determined by two elections in 2007. As a group, we don't expect any serious negative developments in 2007," he explained.

(Source Turkish Daily News)



By the end of last year first, internet news sites and then the rival Sabah newspaper, stirred up debate about the Petrol Ofisi, Turkey's biggest oil products retailer.

Petrol Ofisi(POAS) was established in 1941 and stayed as a state owned company for supplying and marketing of oil and gas from both domestic and foreign markets till 2000. The company has been included in the privatization programme during the 1990s, but only in 2000 the 51% shares held by Public Administration were sold to Isbank and Dogan Holding Consortium. Later in

September 2005, Dogan acquired the Isbank's Petrol Ofisi shares.

With over 35% of market share Petrol Ofisi shares were controlled by the Dogan Group.

After an agreement with OMV on 13.03.2006 Dogan Group sold the 34.7% of shares to the Austrian group. OMV has paid more than 1.05 billion US dollars.

In September 2006, after the Turkish energy market regulator's fine to POAS of 342 million USD for allegedly supplying petroleum products to unlicensed gas stations, Standard & Poor's Ratings Services placed its 'B+' long-term corporate credit rating on CreditWatch with developing implications.

The latest news about tax evasions has been another blow to the company. According to daily Sabah, POAS would need to pay fines of up to 822 million USDs for the unpaid taxes from 2002. The departure of Dogan's board member Tufan Darbaz has been noted as the proof of those claims by some observers.

Defending POAS, Vural Akisik, Dogan Holding's acting chairman says "We have asked the Finance Ministry several times if we can record our financial costs such as interests and differences from exchange rates as our loss after merger. We have a written opinion of the ministry very clearly saying that it can be deducted from our income. Not once, but several times, we have asked and received a clear answer"

It is clear that POAS has not started the new year in a good mood. After fine from the Turkish energy regulator, the Finance Ministry's "tax evasion" claims, the 2006 didn't bring too much happiness and joy to POAS and investors. But POAS, the sponsor of the Turkish Formula 1 Grand Prix, has to gear up to cheer up its investors in 2007.

## Indicators

### Natural Gas

### Turkey's natural gas contracts(Botas)

Country	Amount (Billion cubic meters/year)	Aggr. Date	Period
Russia	6	1986	25
Russia (Trusgaz)	8	1988	23
Russia(Blue Stream)	16	1997	25
Algeria (LNG)	4	1988	20
Nigeria (LNG)	1.2	1995	22
Iran	10	1996	25
Azerbaycan*	6.6	2001	15

\*Expected to start by the end of 2007  
Source: BOTAS

### Status of Natural Gas Pipeline Projects in Turkey

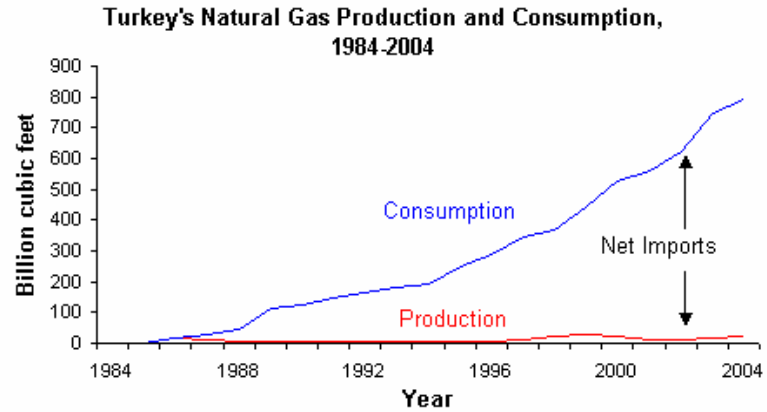
Project	Status	Length (miles)	Max. Capacity (Bcf/y)
Blue Stream	In operation	750	565
Iran-Turkey Pipeline	In operation	750	495
South Caucasus Pipeline	Under construction	430	700
Turkey-Greece Interconnector	Under construction	186	407
Nabucco	Proposed	2,050	460 – 1,100
Egypt-Turkey Pipeline	Proposed	NA	NA
Trans-Caspian Pipeline	Cancelled	1,050	565

Source (EIA, USA)

## Indicators

### Natural Gas

### Turkey's Natural Gas Production and Consumption



Source: EIA International Energy Annual

### Turkey's LNG and Gas Imports by November 2006

	Russia	Iran	Blue Stream	Algeria	Nigeria	TPAO	SPOT LNG	TOTAL (Million cubic meters)
1987	432		-	-	-	88	-	520
1988	1.136		-	-	-	42	-	1.178
1989	2.986		-	-	-	116	-	3.102
1990	3.246		-	-	-	111	-	3.357
1991	4.031		-	-	-	66	-	4.097
1992	4.430		-	-	-	31	-	4.461
1993	4.952		-	-	-	23	-	4.975
1994	4.957		-	418	-	2	-	5.377
1995	5.560		-	1.058	-	-	240	6.858
1996	5.524		-	2.436	-	-	80	8.040
1997	6.574		-	3.300	-	-	-	9.874
1998	6.539		-	3.051	-	150	644	10.384
1999	8.693		-	3.256	77	299	331	12.656
2000	10.079		-	3.962	780	154	-	14.975
2001	10.931	115	-	3.985	1.337	-	-	16.368
2002	11.603	670	-	4.078	1.274	-	-	17.625
2003	11.422	3.520	1.252	3.867	1.126	-	-	21.180
2004	11.106	3.558	3.238	3.237	1.034	-	-	22.173
2005	12.857	4.322	4.969	3.786	1.013	138	-	27.167
2006	10.877	5.452	6.388	3.722	1.044	68	-	27.550

## Indicators

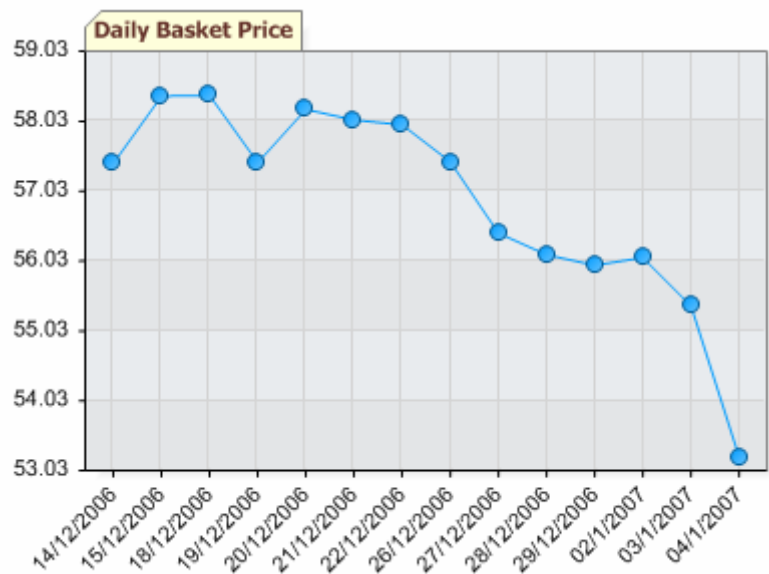
### Natural Gas

### 2006 LNG and Natural Gas Imports by BOTAS (by November 2007)

	Russia GAZEXPORT	Russia TURUSGAZ	Iran	Blue Stream	Algeria	Nigeria	TPAO	TOTAL (Million cubic meters)
Jan.	1.037	64	356	776	489	91	36	2.850
Feb.	1.077	58	490	779	433	86	17	2.940
March	1.127	45	624	551	419	73	5	2.843
April	749	39	611	401	407	176	-	2.382
May	670	42	451	470	325	77	-	2.035
June	906	45	526	494	172	-	-	2.143
July	914	49	588	480	238	-	4	2.269
Aug.	981	45	548	458	80	156	-	2.268
Sep.	980	36	300	585	414	-	-	2.315
Oct.	766	31	438	592	336	220	-	2.383
Nov.	1158	58	519	802	408	165	6	3.116
Dec.								

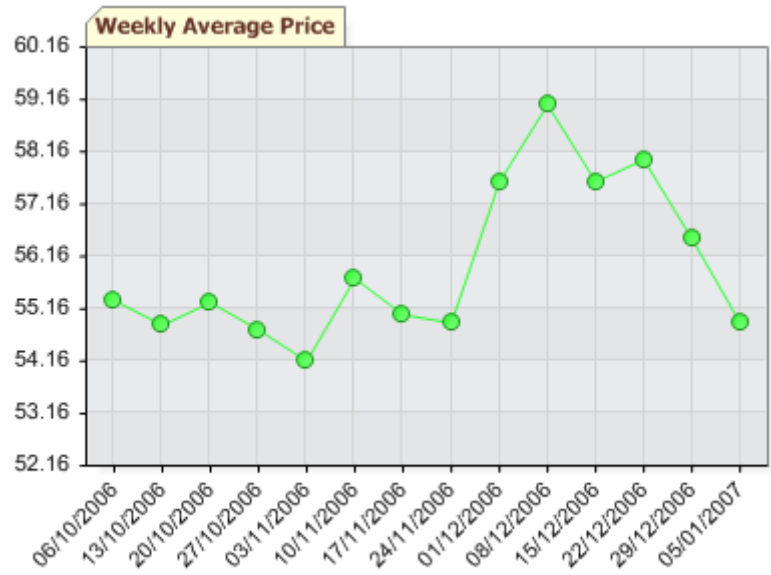
### OPEC Basket Prices

### OPEC Daily Basket Price

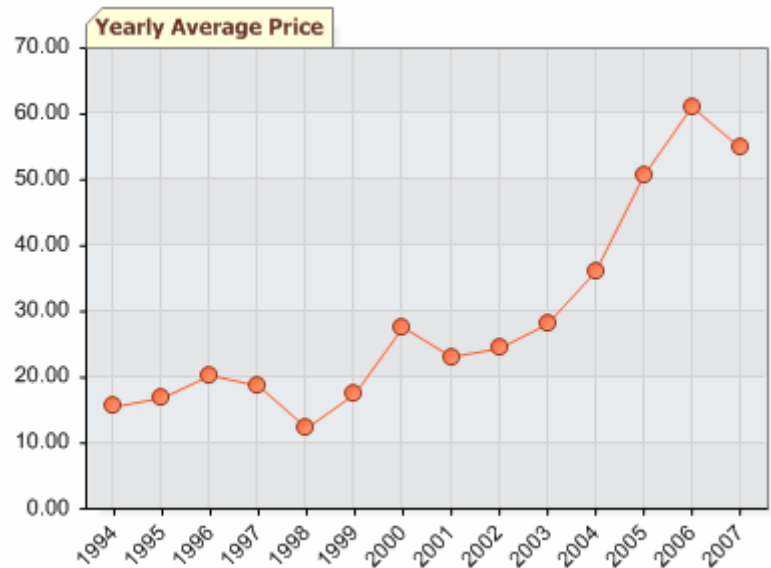


## Indicators

### OPEC Weekly Average Price



### OPEC Yearly Average Price



## Indicators

Indicative Exchange Rates Announced at 15:30 on 01/05/2007 by the Central Bank of Turkey

CURRENCY	EXCHANGE RATES		EXC.RATES ON BANKNOTES	
	Buying	Selling	Buying	Selling
USD/TRY 1 ABD DOLARI	1.4266	1.4335	1.4256	1.4357
EUR/TRY 1 EURO	1.8676	1.8766	1.8663	1.8794
GBP/TRY 1 İNGİLİZ STERLİNİ	2.7669	2.7814	2.7650	2.7856

## Turkish Refinery Output Price

Product Name	YTL/TON	YTL/M3	Special Concise Tax	Dividend	Exclusive of VAT	VAT	VAT included price	Validity Date
<b>Unleaded Petrol 95 OCTANE</b>			<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	
İzmit	789,66	600,14	1.362,50	1,32	1.963,96	353,51	2.317,47	05/01/2007
İzmir	789,66	600,14	1.362,50	1,32	1.963,96	353,51	2.317,47	05/01/2007
Kırıkkale	793,91	603,37	1.362,50	1,32	1.967,19	354,09	2.321,28	05/01/2007
Batman	823,66	625,98	1.362,50	1,32	1.989,80	358,16	2.347,96	05/01/2007
<b>Jet Fuel</b>			<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	
İzmit	864,00	691,20	0,00	1,29	692,49	124,65	817,14	05/01/2007
İzmir	864,00	691,20	0,00	1,29	692,49	124,65	817,14	05/01/2007
Kırıkkale	876,75	701,40	0,00	1,29	702,69	126,48	829,17	05/01/2007
<b>Kerosene</b>			<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	
İzmit	864,00	691,20	760,50	1,29	1.452,99	261,54	1.714,53	05/01/2007
İzmir	864,00	691,20	760,50	1,29	1.452,99	261,54	1.714,53	05/01/2007
Kırıkkale	885,25	708,20	760,50	1,29	1.469,99	264,60	1.734,59	05/01/2007
Batman	892,34	713,87	760,50	1,29	1.475,66	265,62	1.741,28	05/01/2007
<b>Diesel 7000</b>			<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	
İzmit	791,05	668,44	834,50	1,27	1.504,21	270,76	1.774,97	05/01/2007
İzmir	791,05	668,44	834,50	1,27	1.504,21	270,76	1.774,97	05/01/2007
Kırıkkale	812,30	686,39	834,50	1,27	1.522,16	273,99	1.796,15	05/01/2007
Batman	826,47	698,37	834,50	1,27	1.534,14	276,15	1.810,29	05/01/2007
<b>Diesel 50</b>			<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	<b>YTL/M3</b>	
İzmit	826,29	698,22	927,00	1,27	1.626,49	292,77	1.919,26	30/12/2006
İzmir	826,29	698,22	927,00	1,27	1.626,49	292,77	1.919,26	30/12/2006
Kırıkkale	847,68	716,29	927,00	1,27	1.644,56	296,02	1.940,58	30/12/2006
<b>Fuel Oil 4</b>			<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	
İzmit	505,18		476,00	1,42	982,60	176,87	1.159,47	05/01/2007
İzmir	505,18		476,00	1,42	982,60	176,87	1.159,47	05/01/2007
<b>Fuel Oil 6</b>			<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	<b>YTL/TON</b>	
İzmit	373,16		204,00	1,42	578,58	104,14	682,72	05/01/2007
İzmir	373,16		204,00	1,42	578,58	104,14	682,72	05/01/2007
Kırıkkale	380,25		204,00	1,42	585,67	105,42	691,09	05/01/2007
Batman	380,25		204,00	1,42	585,67	105,42	691,09	05/01/2007