Chemical Information Resources for East Europe and CIS

CIREC MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

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FEATURES FROM CMN 231, MARCH 2010

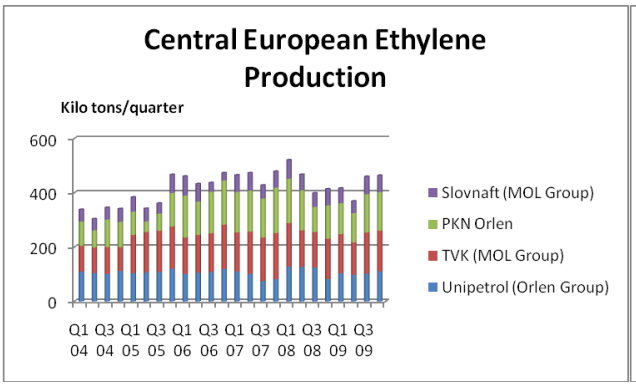
- PKN ORLEN RECOVERS IN FOURTH QUARTER IN 2009, WITH LOWER LOSSES
- TVK'S ETHYLENE SUPPLIES TO BORSODCHEM FALL IN 2009
- CIECH AGREES TDA SUPPLIES WITH AIR PRODUCTS FOR 2012-2018 PERIOD
- SPOLANA FACING DELAYS IN CONVERSION TO MEMBRANE
- COST-CUTTING HELPS PETROHEMIJA THROUGH ECONOMIC TURBULENCE
- SIBUR-NEFTEKHIM REDUCES COSTS IN MONOMER PRODUCTION IN 2009
- TATNEFT TO INCREASE ETHANE CAPACITY AT MINNIBAYEVO TO 140,000 TPA
- SIBUR COMPLETES MODERNISATION OF VYNGAPUR COMPRESSOR STATION
- PROPYLENE CONSUMPTION ROSE 3% IN RUSSIA IN 2009
- ANGARSK POLYMER PLANT USING MORE LIQUID GASES FOR PRODUCING ETHYLENE
- SALAVATNEFTEORGSINTEZ STARTS INSTALLING NEW ELOU AVT-6 UNIT
- RUSSIAN PARAXYLENE DOMESTIC SALES TOTALLED 147,100 TONS IN 2009
- RUSSIAN BENZENE PRODUCTION TOTALLED 104,800 TONS IN JAN 2010, 3% UP ON DEC 2009
- POLIEF INCREASED ITS SALES OF PTA ON THE DOMESTIC MARKET IN 2009
- PET PLANT AT KALININGRAD WILL START IN 2010, WITH A CAPACITY OF 240,000 TPA
- RUSSIAN FORMALDEHYDE PRODUCTION TOTALLED 442,960 TONS IN 2009, 33% DOWN
- METAFRAX SEEKS HIGHER RAIL DISCOUNTS FOR METHANOL EXPORTS
- SIBUR INVESTED LAST YEAR IN THE ISOPRENE MONOMER PLANT AT TOGLIATTIKAUCUK
- UZBEKISTAN AND SOUTH KOREA SIGNED AN AGREEMENT ON UZKORGASCHEMICAL
- RUSSIA PRODUCED 24,980 TONS OF BUTANOLS IN JANUARY, 38% UP ON JANUARY 2009
- PRODUCTION OF POLYPROPYLENE IN UKRAINE AMOUNTED TO 7,820 TONS IN JANUARY
- HIMSORBENT AT DZERZHINSK INTENDS TO CONSTRUCT ETHYLENE OXIDE PIPELINE
- AKRILAT INCREASED SHIPMENTS ON THE RUSSIAN DOMESTIC MARKET BY 82.7% IN 2009
- BELARUS INVITES GAZPROM TO INVEST IN A NEW CHEMICAL PLANT AT GRODNO AZOT
- REPORTS REJECTED OF RELOCATING PARAXYLENE COMPLEX AT ATYRAU TO MANGISTAU

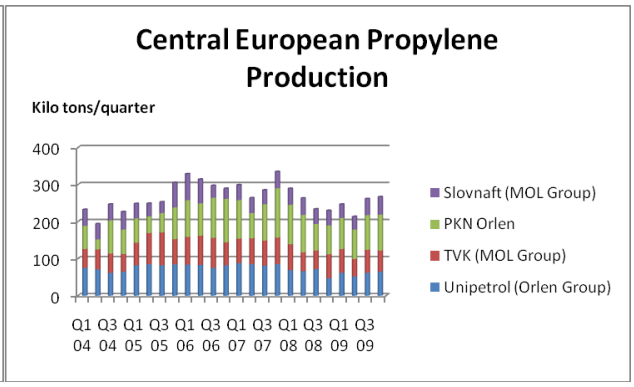
CENTRAL & SOUTH EAST EUROPE

Petrochemicals

Central European Olefins & Polyolefins 2009

Ethylene and propylene production in Central Europe were down only slightly in 2009 over 2008, although declines in profitability were more pronounced. PKN Orlen's production of ethylene and propylene were lower than 2008 both at the Plock complex and Unipetrol's Litvinov complex. The second half of the year saw higher volumes across the region as demand for olefin derivatives improved. TVK's ethylene sales to BorsodChem declined last year, due to lower PVC production, although TVK has concluded a C4 offtake with Synthos to compensate for the lower olefin sales. Polyethylene production in Central Europe was 1% lower in 2009 and polypropylene production 1% higher.





PKN Orlen 2009

PKN Orlen's Indicators for Petrochemical Division (zl million)		
	2009	2008
Revenue	13,056	14,893
Profit/Loss	-196	562
EBITDA	612	1,327
Capex	2,356	1,510

PKN Orlen's petrochemical division recorded a total loss of zl 196 million in 2009 against a profit of zl 562 million in 2008. The group recorded a loss of zl 17 million in the fourth quarter in 2009, measured against a loss of zl 48 million in the fourth quarter in 2008 indicating that the worst of the economic slowdown may have been surpassed. The effect of changes in prices of petrochemical products on inventory valuation increased the division's result by zl 115 million. Overall, the group showed good results for the fourth quarter helping to compensate for the weak performance in the first part of the year.

PKN Orlen Group Petrochemical Sales (unit-kilo tons)		
Product	***2009***	***2008***
Ethylene	261	277
Propylene	214	212
Polyethylene	457	466
Polypropylene	382	369
Ethylene Oxide	18	12
Ethylene Glycol	70	90
Butadiene	57	55
Toluene	74	105
Acetone	21	28
Phenol	34	43
Benzene	263	275
Orthoxylene	20	21
Paraxylene	1	25
PVC	337	306

PKN Orlen's results are heavily influenced by changes in oil price and the zloty exchange rate due to FX loans and its obligations to keep significant oil reserves. The operating results for 2009 were improved by the sale of surpluses of CO2 emission rights in the Unipetrol Group to the value of zl 48 million and savings in fixed costs in value of zl 12 million. Staff reductions and injections of capital helped to reduce operating costs and reduce indebtedness. Further reductions in debt represent the key priority for the group, which could be assisted by the sale of Anwil if the right buyer could be found. Another possibility mentioned is the consideration of sale of shares in the Mazeikiu refinery in Lithuania, although this idea is only in the initial stages.

In the fourth quarter of 2009, PKN Orlen's petrochemical division increased its capital expenditure by zl 90 million to zl 512 million. The largest projects included the construction of paraxylene unit at Plock, the reconstruction of the carbonisation furnace at the Unipetrol Group and the connection of the new PTA unit at Wloclawek to utilities. Other projects for the group include the construction of the hydrodesulphurisation unit at Plock.

The Orlen group expects to see better results in 2010 due to the combination of improved sales and reduced capital expenditure. PKN Orlen has reached agreement for methyl ester purchases for the first three quarters of 2010. Supplies will be delivered from 13 contractors with the bio-components destined for

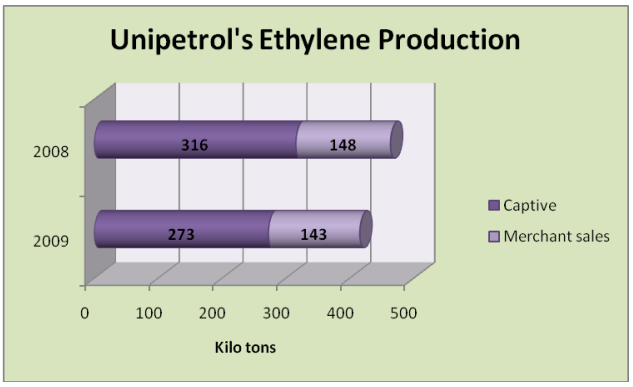
the Polish, Lithuanian and Czech markets. Overall, PKN Orlen has contracted over 400,000 tons of esters, from which almost 50,000 tons will be delivered to Unipetrol RPA.

Orlen Lietuva

PKN Orlen is considering cooperating with a strategic partner at its Lithuanian unit Orlen Lietuva. Recent reports have suggested that PKN Orlen could sell up to 25% of shares in its Lithuanian refinery for around $1.25 billion to an external investor, possibly Rosneft or TNK-BP. Whilst maintaining 100% ownership in Orlen Lietuva may help the group's sales in the Baltic region, Fitch Ratings will not raise PKN Orlen's rating to BBB from the current BB+ which the group is seeking for financial reasons. Orlen Lietuva raised its output to 80% in November 2009 after maintenance, but has still been faced by weak refining margins. Margins are being eroded by high logistics costs after the Druzhba pipeline stopped pumping oil to the refinery in 2006. Since then the Lithuanian refinery has received oil through its sea terminal, significantly denting profitability. This year it may be possible to rebuild a short railway line between Orlen Lietuva and Renge in Latvia, which would lower the cost of shipping fuels to Latvian ports. Around 20 km of tracks were dismantled in 2008, which increases the route for trains by around 100 km.

Unipetrol 2009

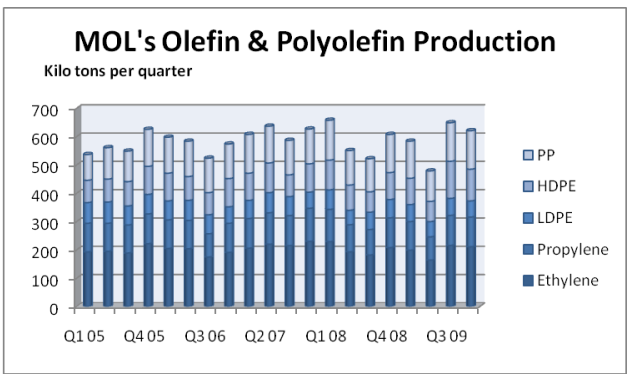
Negative external factors, such as low demand for fuels and other refinery products, combined with depressed refinery and petrochemical margins were the main reasons why Unipetrol reported a negative operational result (EBIT) of Kc 654 million in 2009. Unipetrol processed a total of 4.1 million tons of crude oil in 2009; and achieved revenues of Kc 67.4 billion against a net loss of Kc 840 million.



The Group managed to decrease its fixed and variable costs by more than Kc 1 billion compared to 2008 which helped to retain financial stability. Unipetrol's free cash flow almost doubled, and indebtedness (measured by net debt to EBIDTA) reached its lowest level since the beginning of the economic slowdown. In the fourth quarter of 2009, the petrochemical division recorded an operational profit of Kc 33 million which was better than in Q4 2008. Aside cost reductions, Unipetrol also benefited from the sale of unused CO2 allowances.

Low demand for refinery and petrochemical products, resulting from the economic slowdown, is expected to continue in the first half of 2010 at least. Unipetrol will continue its strict cost controls and expects to see results from its 2009 cost cutting measures in this year's financial performance. The main capital expenditure projects include the completion of the butadiene unit at Kralupy and an investment to offtake C4 fraction from the steam cracker at Litvinov in exchange for raffinate 1 intended for MTBE production.

Unipetrol plans a four- to five-week shutdown at its refining and petrochemical units at Litvinov in 2011. The shutdown is part of a four-year cycle that will also include a shutdown at its Kralupy refinery in 2013. Unipetrol plans no major shutdowns this year.



MOL 2009

MOL's petrochemical division recorded a Ft 3.6 billion operating loss compared to the Ft 1.4 billion operating profit made in the previous quarter. The main reason of the profit decrease was the reduction of petrochemical margins, which was only moderated by cost cutting measures and efficiency improvements, higher polymer sales and lower energy prices.

Margins for petrochemicals fell by 24% in Q4 2009 to €273/ton compared to Q3. The naphtha price increased by 10% in USD-terms compared to Q3 2009, while the polymer quoted prices decreased by 3-5% in euro terms. These negative effects were only partly compensated by the 3% weakening of the dollar against the euro.

Monomer and polymer production remained stable for the MOL group in Q4 2009. Capacity utilisation of the olefin plants dropped slightly due to a small-scale technical breakdown, although the utilisation of the polymer plants of the TVK increased in Q4 2009 vs. Q3 2009. Total sales' volumes increased by 7% in Q4 2009 despite the severe market environment.

For the full year of 2009, MOL recorded an operating loss in its petrochemical division of Ft 15.3 billion, down by Ft 7.7 billion against 2008 attributed to the considerable drop in petrochemical margins and higher energy prices. By applying strict cost control measures, the group was able to limit the scale of the losses in 2009 set against a background of lower polymer sales.

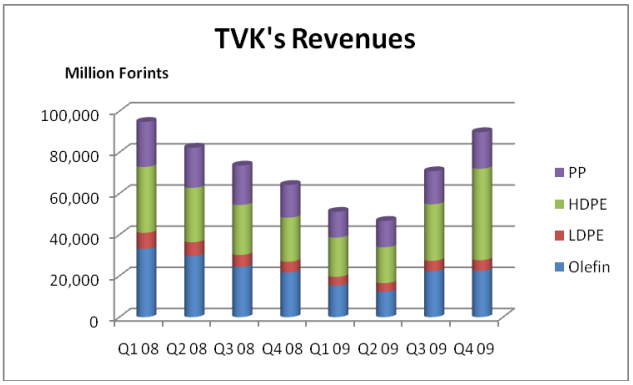
TVK Sales Revenues 2009 (Ft million)		
Exports	***2009***	***2009***
Olefin	4,745	6,243
LDPE	10,295	14,718
HDPE	99,370	93,976
PP	33,390	41,113
Domestic	***Q1 09***	***Q1 08***
Olefin	67,742	102,680
LDPE	8,334	10,799
HDPE	8,920	10,136
PP	25,779	35,266
Total Sales	***Q1 09***	***Q1 08***
Olefin	72,487	108,923
LDPE	18,629	25,517
HDPE	108,290	104,112
PP	59,169	76,379

Petrochemical margins for MOL declined by 25% to €304/ton in 2009 against 2008. Both naphtha prices and polymer prices increased during 2009 compared to December 2008 which was seen retrospectively as the weakest point in the cycle. Average naphtha prices decreased by 32% in USD-terms, and average polymer price declined by 26-28% in euro terms.

Despite the weak economic conditions, MOL's total polymer sales increased by 35,000 tons in 2009 or 3% more than in 2008. Olefin sales declined by 20% due to maintenance shutdowns at the Olefin-1 plant in TVK. In addition, TVK needed to reduce the utilisation of olefin production capacity as ethylene demand from BorsodChem dropped by 31% against 2008. Consequently, not only the sales of ethylene, but the sales of the other olefin products declined. MOL's capital expenditure in 2009 amounted to Ft 16.7 billion, up by 63% on 2008, primarily relating to the reconstruction of olefin plants at both TVK and Slovnaft Petrochemicals.

TVK 2009

TVK recorded its lowest operating profits in the company's history in 2009. Despite significant losses, TVK considers 2009 as a relative success taking the economic conditions into account. Last year it reports that it supplied polymer customers without reducing polymer capacities. Ethylene sales to BorsodChem declined, however and to compensate TVK has concluded a contract with Synthos in Poland for the supply of C4 fractions during the period 2010-2012. As a result, TVK is in position to increase the sales of by-products from the olefin plant and to improve the capacity utilisation of the olefin plants. The ratio of the TVK polymer product grades changed in 2009, mainly due to the final shutdown of the LDPE-1 plant in March last year.



Petrohemija-cost savings improve margins

The Serbian government stated that five months after restarting petrochemical production at the Pancevo petrochemical complex, Petrohemija has saved in the range of €13 million as a result of cost-cutting measures. The restructuring of the company has produced good results, owing to favourable agreements with suppliers such as NIS and LUKoil and the reduction of expenditure in non-essential areas. Petrohemija is expected to continue focusing on increasing savings, improving energy efficiency and aiming to start a new investment cycle. The government has approved a loan for new investments from the European Investment Bank, as soon as possible. It is estimated that €70 million needs to be invested over the next few years. The government has reiterated that the investments will not only modernise and expand capacity but also aim to improve the environmental standards of production.

Chemicals

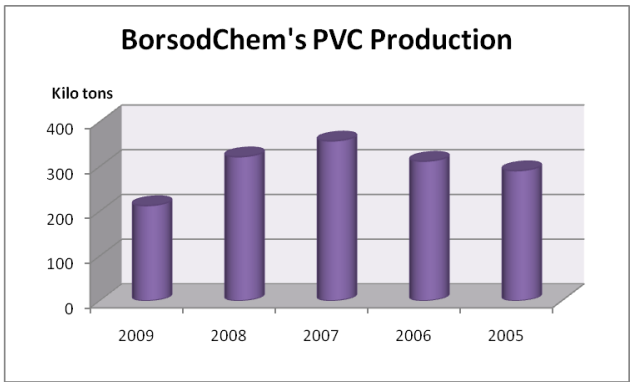
BorsodChem-improved performance

The operating performance of BorsodChem has been gradually improving in recent quarters, improving the outlook for the company which faced immense problems last year. Although still facing difficulties, estimates of how much capital BorsodChem would need for restructuring and to stay afloat have been

reduced from €180 to €140 million. BorsodChem intends to use around 60% of the funds for investment projects.

Questions remain over the future of BorsodChem, whether or not Permira will continue to own the company and whether or not the Chinese company Yantai Wanhua will increase its interest. Accordingly, Wanhua is using aggressive M&A tactics to see if it can secure control of BorsodChem. In February, the parties agreed a deal that will see the Chinese group inject an initial €30 million ($41 million) into BorsodChem immediately, followed by a second tranche of €110 million within the next five weeks. In return, Wanhua will become a significant minority owner in BorsodChem through a debt-equity swap and hold a call option over the buy-out groups' stakes in BorsodChem within the next two years.

According to a public announcement, Yantai Wanhua already has a purchase option on a piece of land in the Netherlands. However, one possible reason why BorsodChem could be more attractive is that it could require less cash up front. Another important factor is the qualified professional staff with experience in operating the company's technology, and the company's existing market positions. BorsodChem's existing output could immediately be sold on the rapidly growing Chinese market, which in turn could help build up a market for the future output of new capacities by Yantai Wanhua now under construction at Ningbo (+300,000 tpa of MDI), and starting next year at Yantai (600,000 tpa of MDI and 300,000 tpa of TDI).

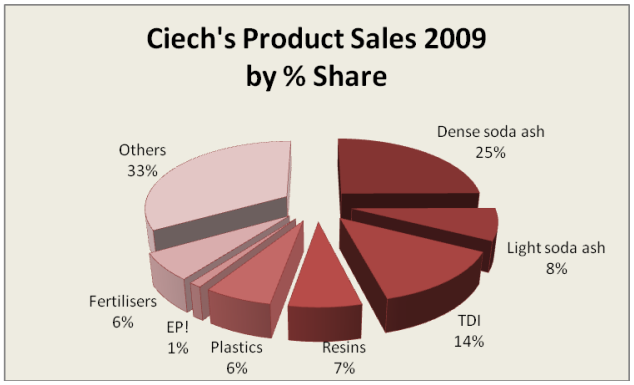


Increasing the interest of Yantai Wanhua appears BorsodChem's best chance of surviving in its current format. BorsodChem faces nearly €1 billion debt, declining supplier confidence, a shortage of current assets that would need a further €100-120 million to be brought up to par, and suspended capacity expansion projects that would require tens of millions of euros to be completed.

Zachem-TDA supplies

Ciech subsidiary Zachem reached agreement with Air Products in February for TDA supplies, covering the period 2012-2018. Zachem is located at Bydgoszcz and is the sole producer of TDI in Poland, for which it requires a constant supply of TDA. The annual value of TDA supplies provided by Air Products is estimated at $80 million, and the total value of the contract will account for $500 million. The contract will guarantee supplies of the raw material according to Zachem's demand. The contract is a renegotiated version of the contract dated 25 October 2007 covering cooperation with Air Products Group.

Zachem has long-standing experience in the production of flexible polyurethane foams and TDI. It is perceived as a forerunner of polyurethane production in Central Europe and the leader in polyurethane production in Poland. In 2007-2008, Ciech considered construction of its own TDA plant at Bydgoszcz, but has deferred project plans for several years at least. In the second half of 2009, the Ciech Chemical Group increased the production capacity of the TDI facility at Bydgoszcz by 25%, to 75,000 tpa. In addition to Zachem, Air Products is also active in Poland at Kedzierzyn-Kozle where it is constructing a new liquid oxygen and nitrogen plant.



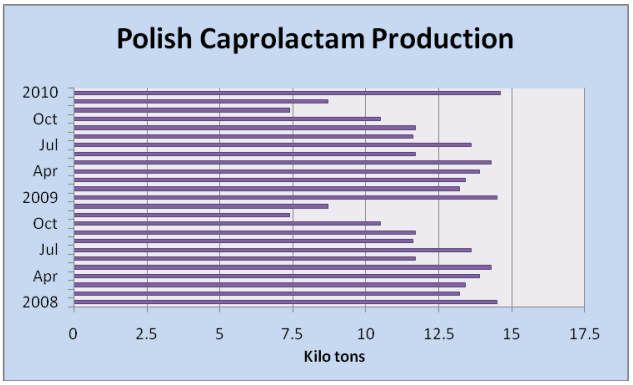
Ciech 2009

Despite achieving higher physical volumes for the Ciech Group in 2009, revenues were only 2.7% less than 2008 totalling zl 3.686 billion. Only in the last quarter of last year did market conditions for the Ciech Group begin to stabilise, and in 2010 the Group expects a slow exit from the economic downturn. The Group reported a net loss of zl 63 million in 2009, although it generated higher operating flows than in the preceding year.

The Soda division was the most successful in the Ciech Group in 2009, generating 88% of the EBITDA and 43% of revenues. Revenues were helped by the expansion of capacity for TDI and PUR foams in the

organic division, although TDI margins were down. Falls in demand for phosphate fertilisers and compound fertilisers forced a lower production in the agrochemical division.

Capital expenditures for Ciech in 2009 totalled zl 263 million, which means a reduction of zl 168 million compared to the previous year. During 2009, the Ciech Group sought to obtain grants from EU funds culminating in grants for investment projects amounting to zl 112 million. Ciech has already signed agreements for three projects in the Soda division for the modernisation of plant facilities, including their impact on the environment. In addition, funding has been approved for projects at Organika-Sarzyna (zl 40 million) and Zachem (zl 27 million).



ZA Pulawy-improved sales environment

ZA Pulawy has been running at full capacity since early February due to an improved market environment for most of its product range. Both fertiliser and caprolactam sales are up against the same period last year. Signals of a limited recovery in the caprolactam market in Asia are helping prices and volumes. Regarding ammonia, ZA Pulawy has signed a zl 330 million ($114 million) deal with the Swiss company Krono Group's unit Kronopol Zary. The deal secures demand for ZA Puławy's increased ammonia production capacities, which the company intends to increase by around 270,000 tpa to 1.2 million tpa.

Polish Chemical Production (unit-kilo tons)

Product	*Jan-10*	*Jan-09*
Caustic Soda	8.2	4.3
Soda Ash	74.4	98.4
Ethylene	48.8	38.4
Propylene	32.9	28.1
Butadiene	5.8	3.1
Toluene	11.5	4.3
Phenol	2.8	2.7
Caprolactam	14.6	8.1
Polyethylene	32.7	27.5
Polystyrene	9.7	8.1
PVC	21.7	15.5
Polypropylene	23.8	24.0
Synthetic Rubber	13.9	8.1
Pesticides	2.4	2.1

ZA Kedzierzyn-nitric acid plant

ZA Kedzierzyn (ZAK) is considering how it can avoid closure of its old nitric acid plant beyond 2010, as required by EU regulations. An extension may be possible to one of the oldest lines in Europe (non-compliant with EU standards of environmental protection), but it would need approval from Brussels. ZAK produces 70-75% nitric acid for use in the production of nitrogen fertilisers, and whilst it has already started the construction of a new plant (through the Czech company Chemoproject) the project has been slowed down by the lack of finance. The new plant is set to have a capacity of 330,000 tpa of 60% concentration. Chemoproject completed a new nitric acid plant for BorsodChem in 2009.

ZA Kedzerzyn-usage of coal provides security

ZA Kedzierzyn's dependency on external suppliers of gas has forced it to examine and develop a project for the production of syngas from coal. ZAK has developed a model solution that allows the internal diversification of energy sources, to allow it to become independent of external energy supplies. Through the innovative integration of a coal gasification plant (IGCC) and the system of carbon capture and storage (CCS), the complex will produce not only electricity and heat, but also the syngas.

The ZAK-PKE project is based on a viable business vision in that the project is not only about capturing carbon dioxide, but also about using it for chemical production. An estimated 92% of the CO2 emissions will be trapped from the project, 66% through the CCS installation and 26% through chemical trapping of CO2 in methanol, urea and other chemical products for ZAK. Areas suitable for CO2 injection can be found near Lodz and Czestochowa, whilst in order to transport the captured CO2 to its final storage location a pipeline will be constructed.

ZA Pulawy-coal supplies

ZA Puławy has concluded a long-term agreement for power coal supplies with Kompania Węglowa S.A. The agreement provides for the sale and delivery of power coal to ZA Puławy and was concluded for the period from 1 February 2010 to 31 December 2011. The price of the coal is determined on an annual basis. The final price of delivered coal depends on the coal's calorific vale and sulphur content. The value of the agreement until the end of 2011, estimated on the basis of the price list for 2010, falls in the range from zl 160 million to zl 180 million, depending on the quality of delivered coal.

Z Ch Police considers gas pipeline to Germany

Z Ch Police is interested in building a gas connection with Germany which would allow it to buy gas at cheaper rates. Polish chemical companies are forced to buy gas from the monopoly, which is PGNiG. Due to a surplus in the EU, prices have declined and Westerm consumers are payimng around 50% less than in Poland. Problems of finance and finding a willing partner to construct the pipeline may prevent the project proceeding.

Poland currently imports about two-thirds of its gas, or about 8 billion cubic metres, most from Russia. The government is financing the construction an LNG terminal on the Baltic to allow for the import of gas from elsewhere. However, the terminal will only come online in five years' time so long term agreements with Gazprom remain essential.

Spolana-chlorine conversion

Spolana has followed Spolchemie in requesting an extension to its allowed usage of mercury in chlorine production due to its financial position. The company is currently undertaking a study on the impact on the environment from mercury, which was originally scheduled for completion in November 2009. The introduction of the membrane process at Neratovice is not scheduled to take place until October 2014, but even now it is not clear how the project will be financed. Whatever the situation, Spolana is required to finish chlorine prodcution through mercury electrolysis by the end of 2014.

RUSSIA

Russian markets January 2010

Russian chemical production rose 34.1% in January against January 2009, illustrating the magnitude of the falls last year. In the main application areas, paints rose 42.4%, plastics 11.8% and fibres 62.9%. The main bulk polymers all recorded production increases; polyethylene 21.9%, polypropylene 19%, PVC 15.3% and polystyrene 40.4%. Fertiliser production rose 1.5 times to 1.5 million tons. Due to rising production and demand levels, the government has increased duties on exports of petrochemicals. The rate of duty on propane, butane, ethylene, propylene, butylene and butadiene, other liquefied gases increased to $65 per ton instead of $46 per ton from 1 February and was then raised again on 1 March to $80. This is still quite low by comparison to the average rate of duty over the past few years.

Russian Main Groups Jan 2010

Product Group	*% vs. Jan 09*	*% vs. Dec 09*
Ammonia	107.9	97.7
Caustic Soda	111.7	97.9
Dyes & paints	121.7	75.4
Bulk polymers	125.6	96.9
Soda Ash	131.2	97.3
Fertilisers	150.5	110.9
Sulphuric acid	151.4	109

Russian Exports 2009 (kilo tons)

Product	*2009*	*2008*
Nitrogen fertilisers	1,121	969
Potassium fertilisers	352	966
Mixed fertilisers	6,607	5,877
Synthetic rubber	641.2	625.7
Ammonia	3,089	3,578

Russian Exports 2009 (billion $)

Product	*2009*	*2008*
Nitrogen fertilisers	1.99	3.419
Potassium fertilisers	1.596	4.318
Mixed fertilisers	1.916	4.093
Synthetic rubber	1.139	1.852
Ammonia	0.626	1.637

Exports of main commodities from the chemical industry remained strong in 2009, although revenues were down heavily against 2008. Fertilisers, ammonia and synthetic rubber all recorded sharp falls in revenues. Production of synthetic rubber in 2009 was sustained by export activity which itself only declined 4% against 2008, whilst domestic consumption of polybutadiene dropped 39% and SBR by 34%. Overall, synthetic rubber production declined in 2009 by 30% against 2008 and amounted to 45,840 tons.

Associated Gas/Feedstocks

Tatneft-Minnibayevo expansion

Tatneft is increasing ethane capacity at the Minnibayevo Gas Processing Plant from 90,000 tpa to 140,000 tpa, and this project should be completed in the third quarter of 2010. The reconstruction of the gas processing plant was approved three years ago in order to improve the equipment and technology, and also to provide more ethane for Kazanorgsintez. The introduction of a new cryogenic plant worth around 1.7 billion roubles is a key part of the modernisation of the Minnibayevo Gas Processing Plant. This technology involves the separation of gaseous nitrogen from hydrocarbon liquids, followed by separation of hydrocarbon mixtures into methane and ethane fractions. The additional ethane will help towards Kazanorgsintez increasing ethylene production.

From the start of 2010, Kazanorgsintez agreed contracts with Gazprom for 290,000 tpa of ethane from Orenburg up to 2012 and Tatneft 96,000 tpa from the Minnibayevo Gas Processing Plant. The expansion of the Minnibayevo Gas Processing Plant will mean changes to the contract towards the end of 2010.

Tatneft has revised its target for associated gas utilisation to 98% by the 2013, as opposed to the previous target of 97.5%. The company invested 380 million roubles into associated gas in 2008-2009, with 800 million roubles planned in 2010. Currently, Tatneft uses 738.4 million cubic metres of associated gas per annum, representing about 94% utilisation. For several years, it has been working on how to reduce the volume of associated gas flares and extract economic potential from this process.

SIBUR-introduction of LTS units at Vyngapur and Gubinsky

SIBUR has completed the modernisation of the Vyngapur compressor station in the Yamal-Nenets region, with the installation of a low-temperature separation unit (LTS). The heat-exchange equipment has been optimised in order to increase associated gas intake capacity. As a result, the capacity has been increased for associated gas from 1.26 billion cubic metres to 1.4 billion cubic metres per annum, whilst SHFLU capacity has been increased by 30,000 tpa to 230,000 tpa. The LTS at the Vyngapur Compressor Station was commissioned in August 2009, allowing SIBUR for the first time to allocate at Vyngapur to process associated gas into natural gas liquids as well as to raise the quality of dry stripped gas for transmission system through the Gazprom network. An 80 km pipeline has been constructed to transport natural gas liquids from the Vyngapur Compressor Station to the Gazprom network. The entire volume of NGLs from Vyngapur is delivered to Tobolsk-Neftekhim, where the gas fractionating unit was expanded to 3 million tpa in 2009.

As a result, SIBUR has completed an important stage in the configuration of the Noyabrsk Gas Processing Complex in the Yamal-Nenets region, by creating a single set of processing associated gas and an independent transportation system for petrochemical raw materials. Construction of a loading railway rack at Noyabrsk represents the final stage in this project.

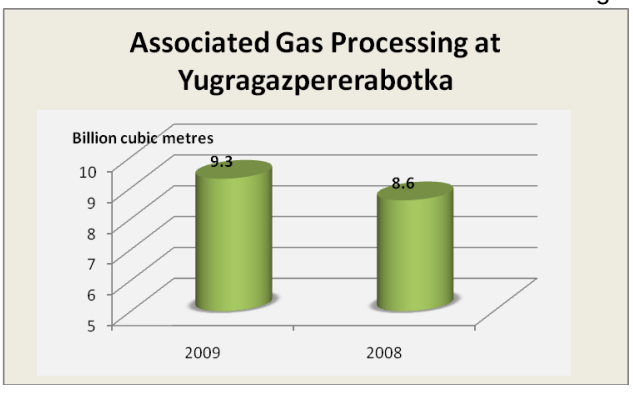
The Federal State Institution Glavgosekspertiza has drawn positive findings on the project for constructing a second low-temperature condensation unit (LTC-2) at the Gubinsky Gas Processing Plant (GPP). The Gubinsky GPP is located in the northern part of the Yamal-Nenets region and the project is to be introduced using technology provided by Lenniikhimmash. This will increase the total target for utilisation of associated gas at Gubinsky to 99%, making it the leading Russian gas processing plant by this performance. The LTS is expected to be completed in the third quarter of 2010, with site development currently underway.

Modernisation of the Gubinsky GPP, comprising two APG processing units, started in 2004. Until then the enterprise had operated as a compressor station, with its sole purpose for recovering insignificant amounts of natural stable gasoline from associated gas. As early as in 2005, the first low-temperature condensation unit was put into operation which allowed the complex to recover up to 95% of associated gas. Furthermore, a 32 km product pipeline was constructed for transportation of SHFLU to Gazprom's condensate pipeline.

Gubinsky GPP processed 2.37 billion cubic metres of associated gas in 2009, which was 8% higher than in 2008 (2.22 billion cubic metres), 284,000 tons of SHFLU against 273,000 tons in 2008 and 2.23 billion cubic metres of dry stripped gas against 2.06 billion cubic metres.

Other news on associated gas processing

Slavneft achieved 71.1% utilisation in associated gas processing in the Yugra region in 2009, 2.6% higher than in 2008. Improvements have been facilitated due to is investment strategy. In the period 2010-2012, Slavneft plans to extend funding valued at 6.3 million roubles for the utilisation of associated gas. The funds will be used for the construction of new power-generating capacity and transmission infrastructure facilities in the Yugra region of Khanty Mansiisk (West Siberia). These include plans to construct and commission two gas turbine units, three gas piston power units and two gas pipelines with a total of 45 km. The pipelines will transport associated gas from the Uzunskoye, Kysomskogo Arigolskogo fields to the Yugra gas processing



plants at Belozern and Nizhnevartovsk.

Yugragazpererabotka significantly increased associated gas processing in 2009, totalling 9.3 billion cubic metres against 8.6 billion in 2008. Last year, the jv formed between SIBUR and TNK-BP was able to maximise processing levels at the two processing plants at Belozern and Nizhnevartovsk. The processing target for 2010 is 9.4 billion cubic metres.

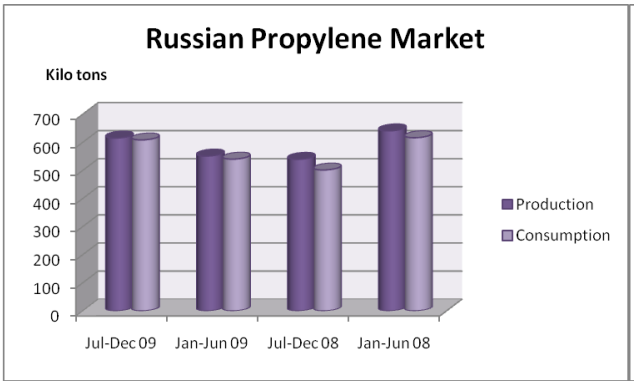
Rosneft expects not to have sufficient time prior to 2012 to bring up the level of utilisation of associated gas utilisation to 95%, as required by the government. The level of gas processing in 2010 fell to 53% from 68% in 2009 due principally to the launch of the Vankor field, which has led to new sources of oil production. Thus, Rosneft expects that the volume of associated gas will rise to 14.3 billion cubic metres in 2010, which is 23% more than in 2009.

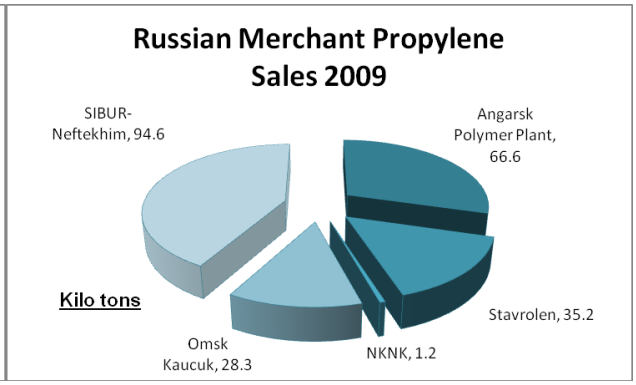
In late 2009, the Russian Prime Minister has re-emphasised the target of 95% utilisation of associated gas for the oil producers by 2012, or will otherwise face the prospect of substantial fines. These fines will be imposed irrespective of the argument of a lack of pipeline infrastructure to support increased utilisation levels. However, speculation has started to emerge for a possible extension of the 2012 deadline for associated gas processing levels to reach 95%. Pressure is coming from state oil companies due largely to the expansion of oil production in East Siberia, where the issues of utilisation of associated gas are more difficult to resolve than in West Siberia.

Petrochemicals & polymers

Russian propylene market 2009

Russian propylene production declined marginally in 2009 due to lower output at the three plants of Stavrolen, SIBUR-Neftekhim and Neftekhimya at Samara. Stavrolen reduced production by 11% due to an accident and unplanned outage in March 2009, SIBUR-Neftekhim was down 4% due to planned maintenance in March, and Neftekhimya at Novokuibyshevsk stopped production altogether earlier in the year. Other producers all showed modest increases in production over 2008, and as a result Russia produced 1.167 million tons of propylene in 2009 which was only 1% less than in 2008.





Consumption of propylene in Russia rose 3% in 2009 to 1.149 million tons. Approximately 60% of consumption of propylene goes into polypropylene and butanols. Increases in production capacity of these two products last year accounted for the overall increase in consumption, aided by high export activity.

Stavrolen's use of propylene for polypropylene production rose at Budyennovsk in 2009, which caused shortages in the merchant market. Prior to the introduction of polypropylene facilities at Budyennovsk, propylene produced by Stavrolen was shipped to Saratovorgsintez for acrylonitrile production. As a result, Saratovorgsintez has been forced to buy propylene from other producers such as SIBUR-Neftekhim, Omsk Kaucuk and Angarsk Polymer Plant. Against a tighter domestic market, propylene exports from Russia fell in 2009 by 72% to 17,800 tons.

Despite higher demand for propylene supply, the merchant market is expected to be better served this year due to rises in production. Nizhnekamskneftekhim has introduced a new furnace which will allow higher propylene volumes, whilst one or two other producers may be able to increase production. Whilst the market is unlikely to see much surplus, at least large merchant buyers such as Saratovorgsintez and Akrilat should be able to procure sufficient supply. The main problem facing non-integrated consumers is the

propylene price which has already started to show signs of rising in the early part of 2010. Any price rises for propylene will at some stage be passed on to the end-users for acrylate esters and acrylonitrile.

Salavatnefteorgsintez-installs new unit

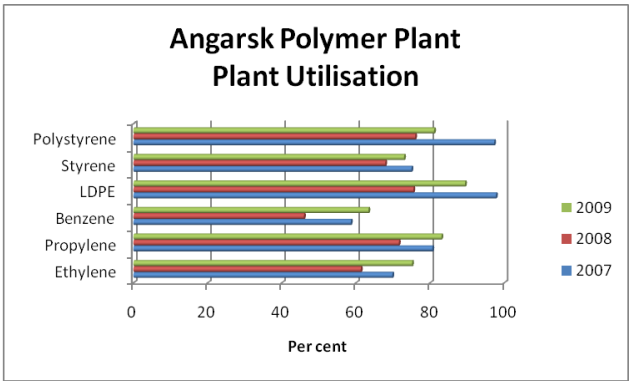
Salavatnefteorgsintez has started working on installing a new ELOU AVT-6 unit, the main purpose of which is to allow usage of light oil and gas oil fractions. The design capacity of the new facility is 6 million tpa and is scheduled for the first quarter of 2012. One of the goals of the project is the decommissioning of obsolete units AVT-1, ABT-3, ABT-4, ELOU-2, and ELOU-5. The ELOU AVT-6 has been designed by Chemieanlagenbau Chemnitz GmbH (CAC), in conjunction with the institute VNIPIneft (Moscow).

Salavatnefteorgsintez Petrochemical Production 2005-2009 (kilo tons)					
Product	***2005***	***2006***	***2007***	***2008***	***2009***
Benzene	148.7	143.1	161	153.9	133.5
Butanols	139	121.3	145	112.4	121.6
Ethylbenzene	166	159.8	190.6	170.9	161.5
2-EH	45.5	44.2	44.3	42.7	30.3
Ethylene	249.3	239.9	293.9	218.8	179.3
P Anhydride	14.8	15.1	13.7	15.2	6.5
Polyethylene	44.9	43.7	44.4	42.5	40.9
Polystyrene	48	44.1	40.4	33.5	26.4
Propylene	124.7	101.1	124.2	96.9	102.8
Styrene	182.6	175.7	186	160.1	146.8

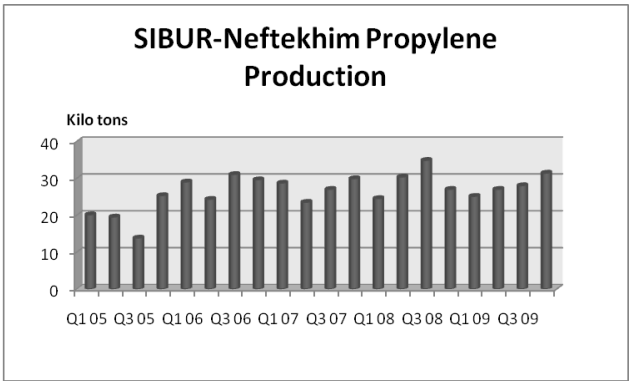
Angarsk Polymer Plant-targets

In order to reduce costs, Angarsk Polymer Plant has started to use more liquid gases instead of naphtha for producing ethylene for captive use and sales to Sayanskkhimplast. Whilst the company is looking longer term at new projects, current investment strategy is focused on reducing fuel and energy costs, improving existing equipment, etc. For 2010, Angarsk Polymer Plant expects to see higher costs of petrochemical production due to higher oil costs. The average cost per ton in 2008 totalled 3,668 roubles which fell in 2009, but is now likely to revive this year.

The Angarsk refinery provides 600–700,000 tpa of naphtha to the Angarsk Polymer Plant, with both companies owned by Rosneft. In 2008, naphtha supplies totalled 644,360 tons which was 40,640 tons lower than in 2007. Lower consumption of naphtha resulted from the downturn in demand and petrochemical production in the latter part of 2008. Ethylene and propylene production dropped 12.1% and 11.4% respectively in 2008 against 2007.



The strategy of Angarsk Polymer Plant is aimed at reducing energy and raw material costs and improving quality of production. In 2009, the company unveiled a new investment programme of development to be completed by 2013. One of the main projects being considered is the expansion of the ethylene cracker from 300,000 tpa to 420,000 tpa. A number of other projects are under review include a new unit for polypropylene with a capacity of 270,000 tpa, and an expansion of ethylbenzene and polystyrene capacities up to 100,000 tpa.



SIBUR-Neftekhim cost cutting measures 2009

Cost cutting measures applied by SIBUR-Neftekhim in 2009 resulted in savings of 569 million roubles. Most of the savings were achieved at the Kstovo complex, with a stromg focus on energy reductions and reduced labour costs.

In addition to improving the ethylene yield, SIBUR-Neftekhim also increased propylene output through revamp of the hydrogenation process for propane-propylene fractions, which started to show effects in the latter part of the year. Less energy was used in the production of ethylene and propylene by installing an additional heat exchanger. SIBUR-Neftekhim produced 213,000 tons of ethylene and 111,000 tons of propylene in 2009.

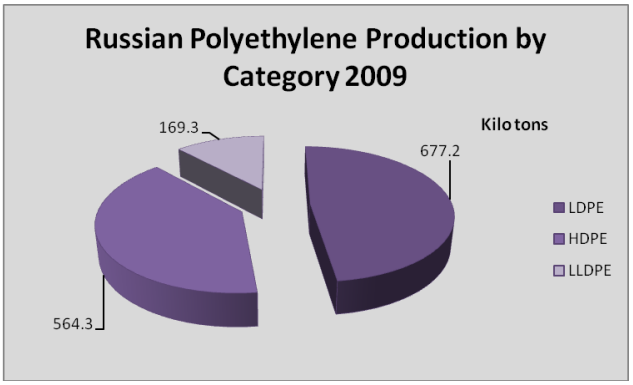
Russian polymer markets

Styrene sales in the domestic market improved slightly in January, with shipments on the merchant market totalling 7,000 tons which was 1.6 times higher than in December 2009. Synthetic rubber producers purchased 3,800 tons in January, 46% more than in December. Production totalled 46,900 tons in January, 4% higher than in December, with several producers recording increases.

Nizhnekamskneftekhim produced 158,000 tons of polystyrene in 2009, 9% higher than the previous year. Exports accounted for 28% of production. The plant introduced cost-cutting measures in 2009 leading to savings of around 204 million roubles. Imports of polystyrenes into Russia in January 2010 increased by 39% against January 2009, totalling 6,940 tons. ABS imports increased by 18% to 1,360 tons in January, mostly supplied from Asia. The scale of the increases indicates the relative upward bounce of the market, but at the same time cannot be construed as real growth.

Polypropylene production was suspended by Stavrolen on 9 February for six days due to the delay in delivery of the catalyst for the production of the polymer. Losses are estimated at 2-2,500 tons which may have allowed traders to increase prices slightly on the open market.

Salavatnefteorgsintez has completed the HDPE unit with a capacity of 120,000 tpa, using Hostalen technology. The company aims to produce grades PE 100 and PE 80 for pipe production. HDPE and LLDPE production rose in 2009, due largely to the start-up of the new plant at Nizhnekamskneftekhim. Imports of polyethylene dropped last year due to weak demand, although volumes are expected to improve this year despite the pending start-up of the new plant at Salavatnefteorgsintez. Imports of LLDPE rose from 20% of total polyethylene imports in 2008 to 28% in 2009.



LDPE exports from Russia fell in January due to rising orders on the domestic market. LDPE consumption dropped in Russia in 2009 due to low demand, whilst production levels remained constant. Only Kazanorgsintez and Salavatnefteorgsintez reduced LDPE production in 2009, whilst the other producers operated at the same rate as in 2008. Exports to China compensated for a lack of domestic demand in 2009, with a fivefold increase against 2008. Exports in total accounted for 40% of LDPE production in 2009, whilst imports declined considerably. A deficit in the domestic market was seen in the latter part of the year, continuing into 2010, resulting from high export activity.

Russian polymer pipes & films 2009

Production of polyethylene pipes in 2009 fell 24% to 195,000 tons. The first half of the year saw a fall of 30%, but a modest recovery occurred in the second half of 2009. At the end of 2009, increased funding for the construction helped revive demand for polyethylene pipes. Russian imports of polyethylene film totalled 5,300 tons in January, 43% lower than in December 2009. Market demand is traditionally weak in the first month of the year.

Russia imported 55,390 tons of polypropylene film in 2009, 31% less than in 2008. Reduced imports were attributed partly to lower consumption of 4% in 2009, but more due to the ongoing process of import substitution. The main importing countries include Belgium, Poland, Germany and UK. Exports of polypropylene films from Russia totalled 23,200 tons in 2009, 61% up on 2008. The main exporting companies include BOPP producers Biaksplen (about 66% of the total), Novatek-Polymer (19%) and Isratek C (13%). Ukraine was the main export destination for Russian films, accounting for 61% of the total.

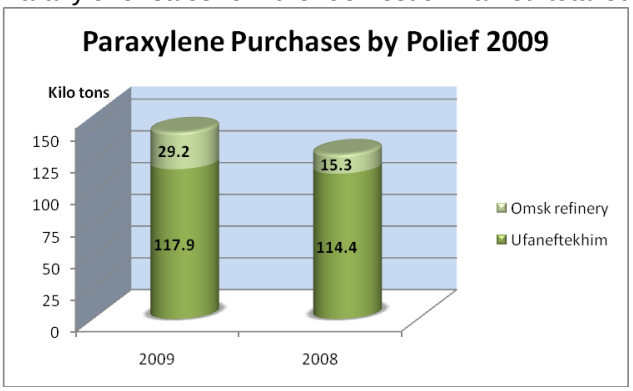
Aromatics & derivatives

Russian benzene supply, January 2010

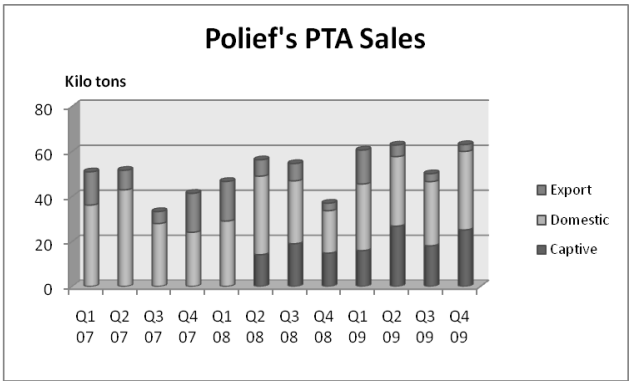
Russian benzene production totalled 104,800 tons in January 2010, 3% more than in December 2009. Oil based ethylene, from refineries and petrochemical plants, rose 6% to 86,900 tons whilst coke based benzene dropped 11% to 17,900 tons. Sales to the domestic market totalled 69,100 tons in January, of which 32,100 tons went to caprolactam producers, 14,200 tons to phenol producers and 8,900 tons to styrene producers.

Polief-paraxylene supply 2009

Paraxylene sales on the domestic market totalled 147,100 tons in 2009, 14% higher than in 2008. Increases in PTA production by Polief fuelled extra paraxylene sales, largely by Ufaneftekhim which accounted for around 80% of deliveries to Blagoveschensk (117,900 tons, 3% more than in 2008).



In addition to Ufaneftekhim, Gazprom-Neft from the Omsk refinery supplied 29,200 tons to Polief in 2009 against 15,300 tons in 2008. A similar ratio and volume of supplies to Polief is expected in 2010, assuming no unplanned outages.



Polief-PTA sales 2009

Polief increased its sales of PTA on the domestic market in 2009 due to increased demand from the non-integrated PET producers SIBUR-PETF and Senezh Polymers. These shipments were in addition to Polief's own captive consumption. SIBUR-PETF and Senezh Polymers are located around 200 km from Moscow. Thus, transportation to the main PET preform plants in the Urals is significantly more expensive than from the Polief PET plant at Blagoveshchensk. The Russian PET market recorded around 500,000 tons of consumption in 2009, half of which was supplied from domestic production and the remainder mostly from South Korea and China. The start-up of the Alko-Naphtha PET plant in 2010 is expected to reduce the volume of imports further.

Russian PET projects

In the first half of 2010, Alko-Naphtha (owned by the Mari Oil Refinery) expects to start its new PET plant at Kaliningrad. Capacity is designed to produce 240,000 tpa based on technology and equipment supplied by Uhde Inventa-Fischer GmbH. The process for PET chips manufacture has been equipped with an automated safety system. Production from the new venture is expected to supply both the domestic market and the external market roughly on a 40/60 ratio. The new plant is located in the area of Pregolsk, where Alko-Naphtha is a resident of the special economic zone in the Kaliningrad region. Total investment in the construction of the plant has amounted to around 2 billion roubles. It will be the fourth Russian production unit of PET in addition to the SIBUR-PETF (70,000 tpa) Senezh (105,000 tpa) and Polief (120,000 tpa). Total production capacity of PET in Russia will comprise 535,000 tpa, which will add further pressure to imports.

Other projects in Russia still planned over the next few years include an expansion of the Polief plant to 400,000 tpa, an increase of the Senezh plant to 180,000 tpa and the construction of the KP Bars plant at Alabuga. Whilst the KP Bars jv, involving 300,000 tpa, has been delayed the project is expected eventually to go ahead. Much less likely is the Appleks project at Kavminvody in the Stavropol region, where in 2007 an agreement was reached agreement with Lurgi Zimmer for the construction of a PET complex. This included a first phase capacity of 140,000 tpa and final capacity of 460,000 tpa. Other possible investments under consideration include the Ivanovo region where assessments remain in the formative stage. Plans are being examined for the construction of units of 600,000 tpa of PET and further processing into chemical fibres and threads. These concepts are being discussed with the Yugra region in West Siberia and the Chinese Association of Chemical Fibres.

Methanol & gas chemicals

Metafrax seeks lower rail costs for methanol exports

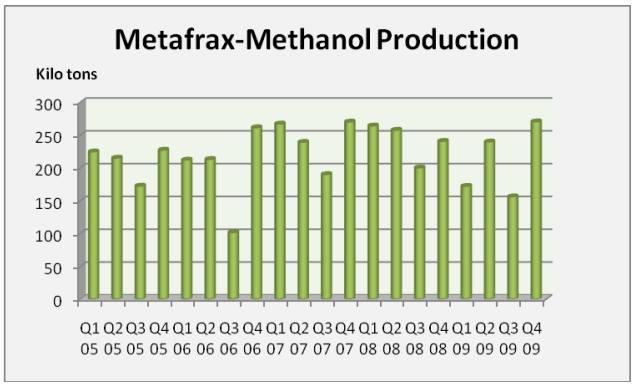
Russia's exports of methanol to Asia in January and February have dropped against December 2009, with low market demand affecting volumes shipped to Finland which accounts for around three quarters of all Russian exports of methanol. Metafrax plans to hold talks with Russian Railways (RZD) and the Federal Tariff Service on the changing conditions of rail costs for methanol exports in 2010. Metafrax will request either a reduction of the export volume from 300,000 tons to 200-250,000 tons, or an increase in the size of

discounts on rail transport of methanol for export. The company exported 110,000 tons of methanol in 2009, as required by the terms of the agreed discounts with RZD. However, this was extremely difficult for Metafrax to achieve set against the backdrop of a weak market and the company claims not to have made any profits from the shipments.

The discount for 2010 has been agreed for 2010 by RZD on the basis that a minimum of 300,000 tons is exported by Metafrax. Market conditions remain under pressure and last November Metafrax requested larger discounts for methanol transportation which would allow it to make some form of profit. By exporting 110,000 tons in the fourth quarter, the company was able at least to run the plant at full capacity. In view of higher gas costs since the start of 2010, it will prove difficult to run at full utilisation unless some concessions for exports are agreed by RZD.

Metafrax 2009

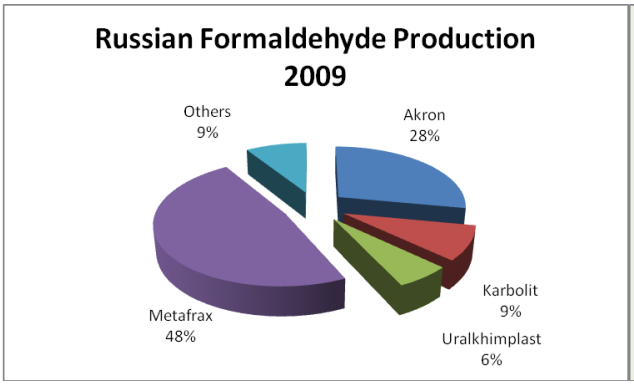
Metafrax achieved a turnover of 5.354 billion roubles in 2009, 32% lower than in 2008. The share of exports in gross sales totalled 32% against 43% in 2008. In 2009, the company produced 838,000 tons of methanol, 124,000 tons (or 13%) lower than in 2008. Metafrax used 27% of its methanol production for captive usage. Formaldehyde production totalled 209,500 tons, which was 22% down against the previous year, whilst urea-formaldehyde concentrate production declined 16% to 154,300 tons. For both products, volumes rose in the second half of the year. Regarding other products, pentaerythitol production totalled 14,000 tons, hexamine 12,600 tons, and sodium formate 7,000 tons.

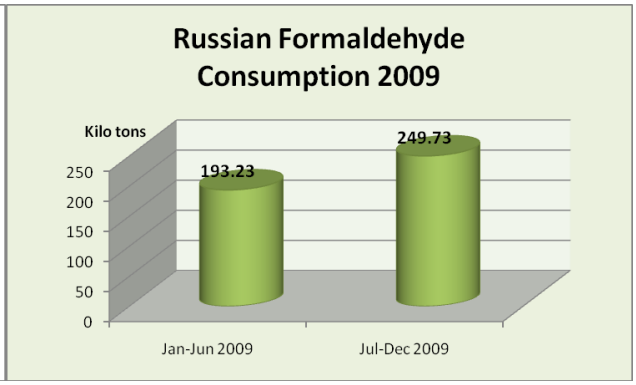


According to preliminary calculations, the net profit in 2009 will amount to 480 million roubles or a third of the result in 2008. Despite the unfavourable market conditions for organic chemical products, Metafrax managed to achieve positive financial results. The company expects utilisation levels of around 90% for 2010, whilst not envisaging a significant change in market conditions. The 14% discount in rail costs allowed increased methanol exports in the second half of the year, achieving the pre-agreed target of 110,000 tons in the fourth quarter, but the company doubts whether it can export 300,000 tons for 2010 under the same arrangement. In 2010, the investment budget for Metafrax will total about 700 million roubles, most of which will go towards the completion of units for the production of hexamine, polyamide and gaseous nitrogen, as well as the expansion of the railway infrastructure. All new installations are scheduled to be put into operation in 2010.

Russian formaldehyde production 2009

Formaldehyde production in Russia totalled 442,960 tons in 2009, 33% down on 2008. Metafrax increased its share in the country's total production to 48% in 2009 and expects to make further increases in future. Consumption of formaldehyde declined less than expected in 2009, although still dropped significantly. The main consumers of formaldehyde in Russia produce formaldehyde resins, which accounted for about 80% of the gross volume of purchases in 2009. Although there has been no change in formaldehyde prices in the first two months of 2010, the cost of formaldehyde production is expected to increase this year due to higher prices for methanol.





Urea-formaldehyde concentrate production totalled 302,000 tons in 2009, which was 14% lower than in 2008. Metafrax accounted for 48% in production in 2009, the same ratio as for formaldehyde. Phenol-formaldehyde resin production totalled 125,700 tons in 2009 against 126,100 tons in 2008. Production in the fourth quarter of 2009 exceeded the third quarter by 23%. Russia's major producers of phenol-formaldehyde resins include YM Sverdlov, Uralkhimplast, MetaDynea, Tyumen Plant of Plastics and Karbolit. Their combined share in 2009 amounted to about 75% of the gross volume of Russian phenol-formaldehyde resins.

Togliattiazot-gas supply problems continue

Togliattiazot has entered emergency conditions for the production of ammonia due to the reduction of pressure in the supply of gas below the technological standards, from 50 to 35 atmospheres. Work has already stopped seven of the eleven units, including five for the production of ammonia, one for urea and one for methanol. The remaining units are working in part-load, which leads to huge economic losses and threatening the technological security of the entire complex.

A contract with Gazprom was agreed in 1997 for 4.5 billion cubic metres of gas at fixed prices set by the FTS. However, Gazprom has bow changed the rules and increased the prices, which are now 20% higher than expected by Togliattiazot. The price that Togliattiazot now pays per thousand cubic metres of limited gas supplies has been raised from 2,037 roubles to 2,835 roubles ($69 to $96). The price for unlimited supplies has grown from 2,843 roubles to 3,403 roubles ($96 to $114).

Organic chemicals & other products

Akrilat-increased domestic shipments

At the end of last year, shareholders of Akrilat approved a credit agreement with the Russian bank Petrocommerce. Akrilat is the sole Russian producer of acrylic acid, using technology supplied by Nippon Shokubai. The capital value of Akrilat is 240 million roubles and is owned by the Group Akrilat.

Akrilat increased shipments on the Russian domestic market by 82.7% in 2009 over 2008 in terms of physical volume and 89.1% in terms of revenue. In total, sales on the domestic market accounted for 41.7% of Akrilat's physical shipments and 51.9% of revenues. Thus, the crisis has had a positive impact on the Russian market for Akrilat due to the sharp rise in the cost of imported acrylic dispersions. This has allowed the company the opportunity to seek sales through import substitution and increased domestic sales from the previous ratio of around 30%. Akrilat holds the license for the right to produce acrylic acid and its esters using technology from Nippon Shokubai.

Russian Chemical-Polymer Production (kilo tons)

Product	*Jan-10*	*Jan-09*
Ethylene	222.3	182.9
Benzene	104.8	77.5
Styrene	46.9	38.3
Polyethylene	137.0	119.8
Polypropylene	55.1	42.5
PVC	52.4	44.0
Polystyrene	28.3	13.4
Butanols	25.0	18.2
Methanol	268.0	179.6
P Anhydride	9.3	4.5
Acetic Acid	14.9	7.1

Organic chemical production and trade

Metafrax produced 1,400 tons of pentaerythitol in January, 8% up on December 2009. The increase is due to increased consumer activity from the paint manufacturers both on the domestic and export markets. Ukraine is the most important export destination for Russian pentaerythitol. Acetone exports from Russia dropped 33% in January against December 2009, and totalled 4,000 tons. Lower exports were due to increased demand on the domestic market.

Russian exports of DOP rose three fold against 2008 to 5,600 tons in 2009, 86% of which was shipped by Salavatnefteorgsintez. Russia produced 2,100 tons of butyl acetate in January 2010, 82% up on January 2009 but 52% down compared to December 2009. Traditionally, demand for butyl acetate in Russia at the start of the year is low meaning that producers are running plants at minimum capacity rates. The main producer in Russia Azot at Nevinomyssk accounted for 93% of output in January. Ethyl acetate production showed a similar trend, 21% down on December 2009 but 15% up on January 2009 totalling 1,250 tons. Over half of the output was produced by Amzinsky Wood Combine.

Acetic acid production increased 3% in January 2010 against December 2009 to 14,952 tons. The largest producer in Russia Azot at Nevinomyssk produced 14,500 tons, which was 2% up, and the Sverdlov plant has more than doubled output to 452 tons.

Russia produced 24,980 tons of butanols in January, 38% more than in January 2009 and 6% more than in December last year. Production was broken down into 64% for normal butanols, 28% for isobutanols and 8% for others. High export activity to China is still the main stimulus to butanols production, although export volumes declined in January due to improved domestic sales. A total of 12,400 tons of butanols were exported in January, which was 14% less than in January 2009 and 37% lower than in December 2009.

Russian exports of phthalic anhydride increased significantly in 2009 to 56,200 tons, 79% up on 2008. China was the main end-destination accounting for 68% of exports. Kamteks-Khimprom accounted for almost all exports from Russia. Imports of phthalic anhydride dropped 6% to 7,500 tons, with Australia being the main supplier with 82% of deliveries. Ukraine was the other main supplier, with 17% of imports.

Russian MEG exports decline due to rises in PET production

Russian exports of MEG declined 35% in 2009 to 92,000 tons. The fall was due to the rise in domestic demand for MEG, particularly for PET production. PET production rose in 2009 by 51% over 2008, using 30,000 tons of MEG. The volume of exports to Belarus, which is the main consumer of Russia MEG, dropped by 12% due to reduced production of PET at Mogilevkhimvolokno. Supplies of ethylene glycol in Finland decreased threefold, to 12,200 tons. Ukrainian consumers in 2009 also reduced the purchase of Russia's production by 35% to 5,700 tons.

The main supplier of products to foreign markets last year was SIBUR-Neftekhim. The share of enterprise in the structure of exports was 67%. In 2009, the supply of MEG production of SIBUR-Neftekhim amounted to 61,600 tons is 10% less than in 2008.

Himsorbent-ethylene oxide pipeline

Himsorbent at Dzerzhinsk intends to invest around 92 million roubles in the construction of a pipeline to supply ethylene oxide from the nearby Kaprolaktam plant, which is part of SIBUR-Neftekhim. This would replace the current system of rail deliveries of ethylene oxide to Himsorbent and will facilitate an increase from 2,500-3,000 tons per month to around 5,000 tons. The Investment Council of the Nizhny Novgorod region has approved a land area of 13,000 square metres rented by Himsorbent. The founders of Himsorbent include Gazprom and ZAO Khimtek Engineering. Himsorbent is Russia's only producer of methyldiethanolamine, high-sorbent used in the oil, gas, and nitrogen industry.

Dzerzhinsk Orgsteklo restart

Dzerzhinsk Orgsteklo (DOS) restarted acetonecyanhydride production on 16 February, allowing the company to restart the production cycle through to flexiglass. The first shipment of acetonecyanhydride was made to Korund on 19 February. This will allow DOS to restart MMA production, and eliminate the need for imported raw materials, which were being sourced from Belarus until the end of last year. The main products of DOS include granular and sheet PMMS, with a combined capacity of 24,200 tpa. In 2008, DOS installed on a third extruder aimed at producing acoustic screens.

Other products

Korund-cyanide compounds

The former president of SIBUR, Yakov Goldovsky expects to invest 4.2 billion roubles in Korund at Dzerzhinsk into the production of cyanide compounds. The plant size has been mentioned at 40,000 tpa. In 2008 Korund introduced a plant for PVC pipes which has been extremely successful.

Penoplex-Rosnano

The Scientific and Technical Council Rosnano has decided to recommend for Penoplex for the construction of a modern plant for production of expandable polystyrene pellets containing nano-modified mineral filler. The design capacity of the plant will comprise 50,000 tpa at the main site for Penoplex at Kirishi. Rosnano will provide financial support for the project, which will be first it has done so in the Leningrad region.

Penoplex is Russia's largest manufacturer of construction and polymer materials. The company began operating in 1998 with the launch of a production line for manufacturing insulation materials, from extruded polystyrene under the brand name Penoplex. The Group owns four plants in Russia (Kirishi, Novosibirsk, Perm and Taganrog). In addition, the holding company owns a plant near Almaty in Kazakhstan.

About 75% of expandable polystyrene is used in the construction industry for thermal insulation of buildings. Adding to the structure of expandable polystyrene nano-sized modified graphite can improve its insulating

properties by about 20%. The Russian market for EPS in 2008 amounted to 160,000 tons, and only around 15% of consumption was met through domestic production.

Polycrystalline project Tomsk

Poly Tomsk (a subsidiary of Singaporean Ze Poly Pte Ltd and resident of Tomsk SEZ) has rescheduled the launch of its pilot production for polycrystalline silicon from the first quarter to April 2010. The change in dates is due to delays in deliveries of equipment from Russia, Germany and Spain. The products will be used in the manufacture of solar cells and delivered to Taiwanese Sino-American Silicon Products on mainland China. At present, there are four major projects in Russia for manufacturing silicon at various stages of development. These include locations Zheleznogorsk, Kemerovo, Volgograd and Novocheboksarsk, and when all plants are operational their total capacity will amount to 130,000 tpa. The Tomsk project is seen as exciting if not risky and will contribute to the development of fluoride technologies in the Tomsk SEZ.

Ukraine

Ukrainian polymer supply

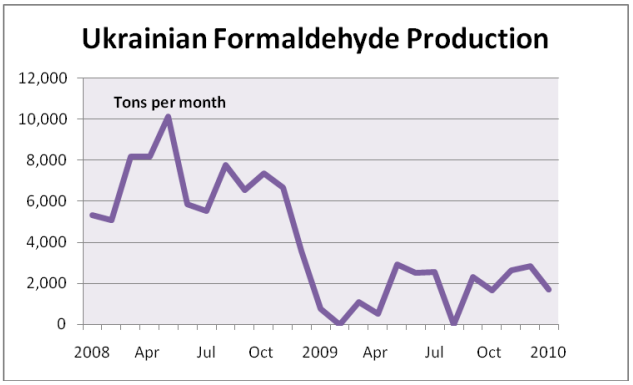
Production of polypropylene in Ukraine amounted to 7,820 tons in January, 2% higher than in December 2009. The sole producer Linik at Lisichansk is operating at high capacity to meet domestic and export demand. The company produced 99,080 tons in 2009, 18% higher than in 2008. Regular maintenance is planned this year, meaning that production should be lower. During the shutdown, capacity at Lisichansk will be increased.

Estimated consumption of polypropylene in Ukraine in January 2010 increased more than 6.5 times up to 9,970 tons compared to January 2009, showing how bad conditions were last year. Estimated consumption of propylene homopolymer almost doubled in comparison with December 2009. The market in Ukraine has been stimulated due to stocks being very low for many consumers and the need for new purchases. Whilst domestic demand has increased, export shipments of homopolymer polypropylene dropped by 50% in January 2010 against December 2009, although exports still remained at a high at 2,960 tons. A lack Ukrainian polypropylene supply is offset by the presence of Russian material, which accounted for around 50% of total imports in January.

Ukraine imported 107,630 tons of PVC in 2009, 24% lower than in 2008. PVC suspension grade accounted for 83,200 tons, paste 12,390 tons and micro-suspension 12,040 tons. Poland accounted for 24% of PVC suspension imports, Germany 22%, Czech Republic 14% and South Korea 7%. PVC paste is imported largely from Germany (66% in 2009). Volumes of PVC suspension and paste are expected to rise in 2010.

Ukrainian formaldehyde & acetic acid markets

Production of formaldehyde in Ukraine fell 25% in January 2010 against December 2009, dropping to 1,700 tons. As a result, the sole producer Azot at Severodonetsk is being left with a surplus in methanol production, posing a threat to the whole production chain. The main influence on the Ukrainian formaldehyde market in 2009 was the high cost of natural gas and impact on methanol production. Other factors included solvency of customers, affecting demand. As a result, formaldehyde production declined 72% in 2009 against 2008. At the same imports of formaldehyde rose 1.5 times in 2009, mainly from Russia due to lower pricing. Overall though, formaldehyde consumption in Ukraine declined 68% in 2009 whilst consumers switched to using urea-formaldehyde concentrate. As a result, urea-formaldehyde concentrate consumption in Ukraine was higher in 2009 over 2008 by almost 40%.



High natural gas costs reduced domestic production of urea-formaldehyde concentrate and made it more attractive to buy product from Russian producers. Imports from Russia rose 35% in 2009 and accounted for 75% of the market. The major suppliers include Metafrax, Shchekinoazot and Togliattiazot, the latter of which provided almost half of supplies. However, due to its own problem of high gas prices, Togliattiazot

has reduced production in the first two months of 2010 which has allowed Metafrax to increase its market share.

The cost of natural gas also remains a primary factor influencing the production of acetic acid in Ukraine. Prices have risen in the first quarter, which will naturally impact on production costs and will possibly reduce the amount of exports from Azot. As Azot exports more than 70% of its production, it may be forced to reduce operating rates. The remainder is used mostly in VAM production at Severodonetsk, which itself is used in acetate solvents. The domestic market for acetate solvents is unlikely to improve significantly in 2010, but Azot could face competition from lower priced acetic acid imports.

Other Ukrainian news
Izmail Commercial Sea Port in Ukraine intends to build a chemical complex for storage of 10.000-15.000 tons of fertilisers. The project could cost about 50 million hryvnia (about $6.25 million). The Port Authority said they need 32 million hryvnia to implement the first phase and those who would invest possibly fertiliser producers in Ukraine and Russia.

Sumykhimprom has announced its intention to buy imported raw materials for the production of titanium dioxide. The supply of ilmenite from domestic production at the plant has recently been reduced considerably. In addition, due to the conflict for control of the mines Irshansky GOK and Volnogorsky MMC, shipments of ilmenite to the plant have become unstable. Sumkhimprom's problem is a lack of funds which might prevent it importing ilmenite, usually around 30% higher than from domestic sources. The other Ukrainian producer of titanium dioxide Crimean Titan has agreed to return to the state property control of ilmenite production from Irshansky GOK and Volnogorsky MMC. Last year, Crimean Titan's lease of the mines expired although the company tried initially to extend the management lease.

Belarus

Belarussian chemical production January 2010
Chemical production in Belarus increased in January 2010 by 31.3% against January 2009, totalling 1.046 trillion Belarussian roubles. A total of 491,300 tons of mineral fertilisers were produced which was 59.2% higher than in 2009. Cord fabric production increased by 55.4% to 5,9 million square metres, chemical fibres and yarns by 42.1% to 18,900 tons. Synthetic resins and plastics production totalled 29,900 tons, 5.4% higher than in January 2009.

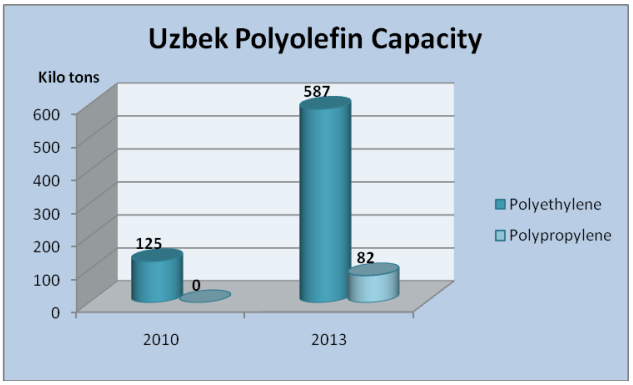
Grodno Azot seeks Russian involvement
Grodno Azot and Grodno Khimvolokno are negotiating with Kuibyshevazot on cooperation in the construction of polyamide-6 facilities. Further details could be available by the end of March. Belarus has also invited Gazprom to participate in the construction of a new chemical plant at Grodno Azot. In exchange, Belarus is hoping to lower gas prices from $168.8 per thousand cubic metres from 2010 to $150. The country's Ministry of Finance had budgeted for a maximum of $166 for 2010, but the actual price after transport costs have been added could rise this year to around $200. Belarus is trying to present its proposal as a kind of concession to Gazprom, but besides lower gas prices it is very interested in Russian investments.

Grodno Azot plans to invest about $1.5 billion in the 2010-2016 timeframe. The development programme involves construction of a new facility to produce ammonia, methanol and urea, which will involve modern technologies and equipment. The construction of a new complex includes work on the principle of three in one, which will enable the production of all three chemicals in one shop using around 600 million cubic metres of natural gas per annum. Grodno Azot's turnover for 2009 was 15.4% higher at 1.38 trillion roubles. Production totalled 667,300 tons, 0.7% down, biofuel 247,700 tons, 242.8% up, and caprolactam 115,100 tons, 0.8% down. Around 60% of production is sold in the domestic market.

Central Asia-Kazakhstan

UzKorGasChemical agreement signed
Uzbekistan and South Korea signed an agreement on construction of a petrochemical plant at a cost of around $4 billion. The countries signed a bilateral investment agreement for the construction project of a chemical plant in Uzbekistan, and the extraction of gas in the field Surgil in the Ustyurt region in western Uzbekistan. The project will comprise the construction of the Ustyurt Gas Chemical Complex for processing of Uzbek gas, and produce polyethylene and polypropylene. Samsung Engineering and Uzbek institute

UzLITIneftgaz have already developed the technical part of the project, which provides for the processing of 4.5 billion cubic metres of natural gas per annum (a third of that amount would come from other fields in Ustyurt region) and the production of up to 445,000 tpa of polyethylene and polypropylene.



UzKorGasChemical was created in 2008 between Uzbekneftegaz and a Korean consortium consisting of Kogas, Lotte Daesan Petrochemical Corp. LG International, SK Gas and STX Energy. Funding for the project is from foreign investments and loans, attracted by a consortium of Korean companies to the amount of $1.694 billion, from Uzbekneftegaz $1.21 billion and credit from the Fund for Reconstruction and Development worth $350 million. In accordance with the schedule, the launch of the first stage of the complex is scheduled for November 2011. Full capacity of the complex is scheduled to be reached by the end of 2012.

Turkmenistan-polypropylene

Polypropylene production at Turkmenbashi increased by 9,000 tons in 2009 over 2008 and totalled 82,300 tons. Propylene is produced at the refinery through associated gas processing, with the polypropylene plant based on Basell technology with a capacity of 90,000 tpa. An expansion to 120,000 tpa is expected to take place in 2011 or 2012.

Atyrau aromatics complex

Axens of France have visited the Atyrau site where construction of the aromatics complex is planned, involving benzene and paraxylene. ParamaX technology will be applied for the production of both benzene and paraxylene. The aromatics complex is part of the technological chain involving catalytic reforming units. As a result, the recent suggestion that the aromatics complex could be relocated in the Mangistau region of west Kazakhstan on environmental grounds has been rejected by the management of the Atyrau oil refinery. Whilst the Mangistau region is rich in hydrocarbons there is no refining plant or the basis to create a derivatives unit. There has been some local opposition to the construction of the aromatics complex at Atyrau, but it is unlikely to proceed beyond protests.

One problem is that environmental data on the effects of the aromatics complex has largely been outdated, so it has been almost impossible to find an informed and accurate view. In terms of locating the aromatics complex in the Mangistau region, it would be necessary to transport raw materials by pipeline or tank method of transportation, which could prove extremely costly. The advantages of constructing the aromatics complex at the Atyrau refinery include a flexible process flow which provides an opportunity to vary the final product output depending on the domestic market requirements for gasoline and petrochemical feedstocks

Capacities for the aromatics complex include 496,000 tpa of 136,000 tpa of paraxylene and benzene respectively. Before the construction and commissioning of gas-chemical complex, KazMunaiGaz needs to address issues related to the sale of benzene and paraxylene. The company is reported to be in the stage of signing a contract with Sinopec, which will involve sales to China. Russia may also become an end-destination.

Relevant Currencies

- (Czech crown. Kc. $1= 17.241. €1 = 25.922): (Hungarian Forint. Ft. $1 = 177.04. €1 = 266.185): (Polish zloty. zl. $ 2.7757. €1 =4.1740): (Romanian Lei. $1 = 2.8526. €1= 4.289). (Ukrainian hryvnia. $1 = 8.205. €1 = 12.3365): (Rus rouble. $1 = 28.2963. €1= 43.916)

Table of Contents CIREC Monthly News Issue No 231

FEATURES FROM CMN 231, MARCH 2010 1

CENTRAL & SOUTH EAST EUROPE 2

PETROCHEMICALS 2
Central European Olefins & Polyolefins 2009 2
PKN Orlen 2009 2
Orlen Lietuva 3
Unipetrol 2009 3
MOL 2009 3
TVK 2009 4
Petrohemija-cost savings improve margins 4

CHEMICALS 4
BorsodChem-improved performance 4
Zachem-TDA supplies 5
Ciech 2009 5
ZA Pulawy-improved sales environment 6
ZA Kedzierzyn-nitric acid plant 6
ZA Kedzerzyn-usage of coal provides security 6
ZA Pulawy-coal supplies 6
Z Ch Police considers gas pipeline to Germany 7
Spolana-chlorine conversion 7

RUSSIA 7
Russian markets January 2010 7

ASSOCIATED GAS/FEEDSTOCKS 7
Tatneft-Minnibayevo expansion 7
SIBUR-introduction of LTS units at Vyngapur and Gubinsky 8
Other news on associated gas processing 8

PETROCHEMICALS & POLYMERS 9
Russian propylene market 2009 9
Salavatnefteorgsintez-installs new unit 10
Angarsk Polymer Plant-targets 10
SIBUR-Neftekhim cost cutting measures 2009 10
Russian polymer markets 11
Russian polymer pipes & films 2009 11

AROMATICS & DERIVATIVES 11
Russian benzene supply, January 2010 11
Polief-paraxylene supply 2009 12
Polief-PTA sales 2009 12
Russian PET projects 12

METHANOL & GAS CHEMICALS 12
Metafrax seeks lower rail costs for methanol exports 12
Metafrax 2009 13
Russian formaldehyde production 2009 13
Togliattiazot-gas supply problems continue 14

ORGANIC CHEMICALS & OTHER PRODUCTS 14
Akrilat-increased domestic shipments 14
Organic chemical production and trade 14
Russian MEG exports decline due to rises in PET production 15
Himsorbent-ethylene oxide pipeline 15
Dzerzhinsk Orgsteklo restart 15

OTHER PRODUCTS 15
Korund-cyanide compounds 15
Penoplex-Rosnano 15
Polycrystalline project Tomsk 16

UKRAINE 16
Ukrainian polymer supply 16
Ukrainian formaldehyde & acetic acid markets 16
Other Ukrainian news 17

BELARUS 17
Belarussian chemical production January 2010 17
Grodno Azot seeks Russian involvement 17

CENTRAL ASIA-KAZAKHSTAN 17
UzKorGasChemical agreement signed 17
Turkmenistan-polypropylene 18
Atyrau aromatics complex 18