



rompetrol

KazMunayGas
International
Group Member

2022

Rompetrol Rafinare S.A.

2022 BUDGET PRESENTATION

ROMPETROL RAFINARE SA

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Important Note: The Income and Expense Budget for 2022 has been prepared without considering the consequences that may impact the Company's activity as a result of the war in Ukraine, the restrictions that may be imposed by the Community and / or Romanian authorities regarding import of crude oil from the Russian Federation, unpredictable increases in utility prices, etc.

Depending on the evolution of the context, which at this moment appears to be impossible to anticipate and extremely volatile, the Company will re-evaluate the Income and Expense Budget accordingly.

1. BUSINESS PLAN EXECUTIVE SUMMARY

1.1 Key macroeconomic assumptions

- **Market Refining Margin:** 2022 Market Refining Margin assumed at 8.1 \$/ton.
Market margin = weighted average production at market quotation, less (-) raw materials consumed weighted at average market quotation
- **Key Currencies** have been assumed as per latest market reality & most updated available forecasts, showing an overall depreciation of all key currencies:

EUR/USD	EUR/RON	USD/RON
1.23	5.01	4.08

1.2 Petromidia refinery

- 5.66 million tons Total Feedstock Processed;
- 5.03 million tons crude oil processed during 2022, with a run rate of 14.805ktons/day (Crude Unit diet – 71.7% Rebco, 20.0% Siberian, 3.7% CPC, 3.4% Kirkuk, 1.3% Other crude grades & alternative feedstock);
- Diesel: according to the current regulation, during summer and also winter period, the finished diesel which will be placed on the market assumed at bio component content level of 6.5%;



- Gasoline: according to the current regulation, gasoline for internal market will contain a level of 8% bio component;
- During 17th of March and 10th of April the Refinery will be in total shut down for 25 days. In this period, it will be done ISCIR activities for reauthorization of the main equipment's and change of the catalyst: 122-Diesel Hydrotreater, 125-Diesel Hydrotreater, Naphtha Hydrotreater and it will be done also Platforming catalyst regeneration and Delayed Coker heater decoking.

1.3 Vega refinery

- Total feedstock processed at a level of 452.8 ktons;
- The total production influenced by Petromidia availability;
- Bitumen unit in operation between March-December, in line with the seasonal market demand.

1.4 Petrochemicals

- 2022 targeted production of 217 ktons;
- PP Unit: normal operation, full integration with PEM refinery, turnaround activities scheduled for 25 days, during March-April;
- LDPE: normal operation, with continuous purchase of ethylene (raw material), also with turnaround activities scheduled for 25 days, during March-April;
- HDPE Units: will be under a transformation program for the HDPE swing to PP.



2. PETROMIDIA REFINERY

2.1 Presentation

Petromidia Refinery is one of the largest and most complex oil refineries in Eastern and Central Europe.

Petromidia Refinery is located on the Black Sea coast, having a competitive advantage due to access at shipping routes and inland waterways.

The crude oil supply is ensured through Midia Harbour, through the Midia Marine Terminal, company part of KMG International NV, pipeline which was given in use in February 2009. The terminal has an annual transfer capacity of 24 million tons of crude oil and ships up to 160,000 dwt can be unloaded. Alternatively, the crude oil supply can be ensured from Constanta Harbour through a 40 km long pipeline.

The crude oil processing capacity of the refinery is of 5 million tons annually. To deliver oil products, our company uses multiple loading/unloading facilities such as: rail carriage, vessel thru Midia Harbour and auto-tanks.

2.2 Short history

In 2012 Rompetrol Rafinare completed the last phase of its capacity increase program for the Petromidia Refinery, named "Package 2010", from 3.8 million tons/year, to over 5 million tons/year of crude oil processed. The refinery's capacity increase investment program allows the consolidation and development of Rompetrol's presence in Central and Western Europe.

The main objectives of the "2010 package" were the following:

- to increase the operational capacity of the refinery to 5 million crude oil tons/year;
- to meet the new EU & Romanian fuel specifications standards (Euro 5) (regulation COM(2005)683);
- to increase the Diesel yields with 8% (from 37% to 45%);
- to operate the Refinery according to EU and Romanian environmental requirements (BAT system) (Directive 70/220/EEC);
- to increase the mechanical availability and reliability of the refinery.



The assumed objectives of the “2010 package” were fully realized. From the investments package we can mention:

- The New Hydrogen Plant was put into operation, the advanced plant produces hydrogen with a purity of 99.98%, which is required in order to obtain the cleaner fuels by further processing in hydrotreating units. The Hydrogen Plant is operation starting with 1st of May 2012. The raw material is CH₄ with a throughput of 96,800 tones/year.
- Also, the New Mild Hydrocracking unit was put into operation. The plant is the core project of the package, a complex process that combines hydrotreating and cracking at high pressure and temperatures the heavy gasoil using hydrogen. This hydrocracking process combines the necessity to convert hydrocarbons into valuable products (cracking) with the constrain of lowering sulfur in products (hydrotreating).
- The New Sulfur Recovery unit process more sulfur crudes required in order to obtain more sulfur from fuels. The New unit is able to meet fuels new standards together with limiting the 1,000 mg/Nm³ SO₂ emissions in air.

Were introduced in Romania starting with October 2012 the new Efix S products:

- Gasoline ALTO RON 101 was replaced by Gasoline RON 98 / Gasoline EFIX S RON 98;
- Diesel ALTO 55 was replaced by Diesel 55 / Diesel EFIX S 55.

In 2021, the operation of the Petromidia refinery was affected by the incident that occurred on July 2, 2021, the Diesel Hydrotreater Unit. During this period, a series of works took place for the restoration of the affected units. The technological units have been restarted gradually starting with 24th of September 2021 and are expected to reach, by the end of October, the capacity, and the optimal operating efficiencies. To ensure sales, during refinery stop, on the domestic market and in the distribution network in Rompetrol Bulgaria and Moldova were imported components for auto fuels and aviation fuels for the main airports from Romania.

In 2021, 4.59 million tons were processed, lower by 5.7% compared to the total raw material processed last year, the same period, when a quantity of 4.86 million / ton was processed.

In 2021, the degree of utilization of refining capacities in Petromidia refinery was 66.2%, decreasing by 7.1% compared to similar period last year.



The operational performance of Petromidia Refinery in 2021 was influenced by the incident at the HPM plant in July. The results obtained for the main technological and operational parameters are the following:

White finished products yield of 86.12%wt;
Technological loss of 0.82%wt.

2.3 Marketing strategy

2.3.1 Portfolio of products

Rompetrol Rafinare SA produces a wide range of high-quality petroleum products which are distributed to a great number of customers from natural persons to large entities. Having a vast experience in this field, the company sells a great variety of petroleum products such as:

- Efix Gasoline and Euro plus unleaded Gasoline, Gasoline RON 98 / Gasoline EFIX S RON 98;
- Efix Diesel and Super Euro 5 Diesel, Diesel 55 / Diesel EFIX S 55;
- C5-C6 Gas and Fuel Propane;
- Propane-Propylene mixture;
- Jet fuel;
- Petroleum Coke;
- Sulphur;
- Liquefied petroleum gas GPL, Auto GPL and Commercial Propane-Butane;
- Vacuum distillate;

Rompetrol Rafinare has a unique offer of products that appeal to all types of customers, main concentration to be targeted on large companies, both on the domestic and export markets, ensuring highest profitability and inventory management potential.

The Rompetrol Group regional expansion in Greece, Georgia, Turkey, Bulgaria, Moldavia, Serbia, as well as in Lebanon will ensure the growth of the portfolio of clients.



2.3.2 Competition

The main competitors of Rompetrol Rafinare are OMV-Petrom (Petrobrazi refinery), Lukoil (Petrotel refinery) refineries that have developed along with Petromidia Refinery, oil products imported through Oil terminal and distributed in Romanian market.

2.3.3 Market assumptios

Proposed assumption for Crude quotations level:

Brent Dated	\$/bbl	60.0
Urals RCMB	\$/bbl	59.4
Urals Differential to Brent	\$/bbl	-0.6

Key Products Market Cracks vs Urals - \$/ton

Rompetrol Rafinare decided to take a prudent market margin for the 2022 budget, given the big volatility triggered by the disruptive market events worldwide as of 2020 and 2021 according with available market forecast from main independent market surveyors as JBC, Wood Mackenzie or Platts Pira.

Accounting for previously mentioned individual products assumptions - at 2022-year level mix of feedstock diet and products mix - weighted average level of Market Refining Margin 2022 assumed at a level of 8.1\$/ton processed.



Accounting for previously mentioned individual products assumptions - at 2022-year level mix of feedstock diet and products mix - weighted average level of Market Refining Margin 2022 assumed at a level of 8.1\$/ton processed.

1F - SALES/PRODUCTION Market Margin @ IP 2021 Supply & Sales Mix

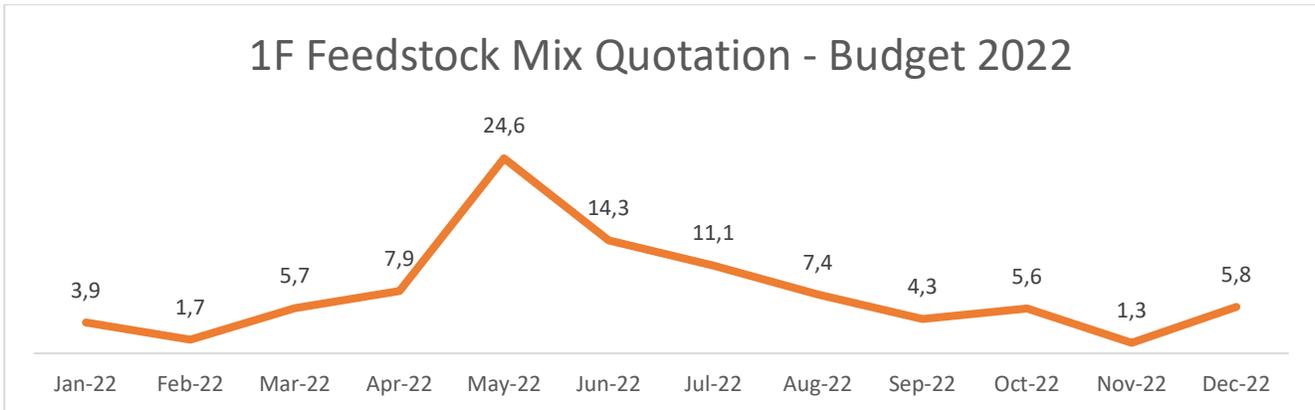
1F market margin	8.1	
	Market quotation (\$/t)	Production yields (%)
Raw materials	455.4	100%
CPC	474	3.49%
REBCO	428	67.77%
SIBERIAN LIGHT	443	18.89%
KIRKUK	432	3.19%
BIODIESEL	1,194	2.54%
BIOETHANOL	773	0.74%
METHANE	410	1.17%
MTBE	692	0.42%
Other raw materials	425	1.79%

Production	463.5	100%
GASOLINE	572	22.69%
DIESEL	514	44.74%
JET	529	4.53%
NAPHTHA	506	1.09%
LPG	382	5.03%
PROPYLENNE-PROPANE	706	2.74%
FUEL OIL	304	3.39%
HEAVY FUEL	306	0.36%
SLURRY	348	0.01%
COKE	109	4.54%
SULPHUR	53	0.92%
Raffinate	504	3.79%
Other loss and gas	-	6.17%



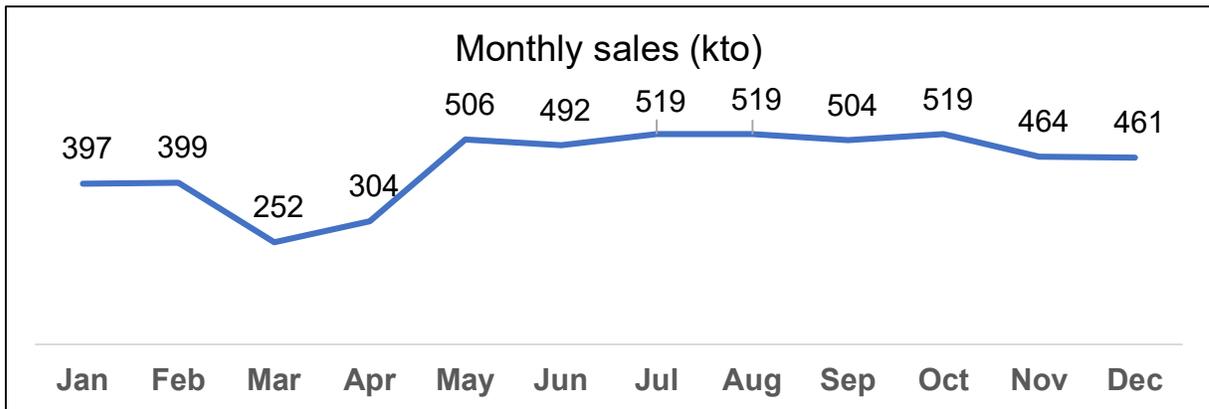
Market Refining Margin (1F) represents the difference between:

- 1) the market prices - international quotations – of all products refined, weighted at the planned level of production yields, and,
- 2) the market prices – international quotations – of all planned feedstock needed to produce the refined products, weighted at the planned diet.



2.3.4 Sales

During 2022 sales quantities are directly influenced by the refinery shut-down and market margin evolution with lower production/sales in January-April and maximized in the next period when the market margin previews an increase.



About the market orientation/product placement strategy, within 2022 the company estimate to deliver in domestic market 4 mil tones or 75% from production and on export 1.3 mil tones or 25%.



Sales 2022 (kto)	Domestic	Export	Total
Total products, out of which:	4,006	1,330	5,336
Gasoline	842	567	1,409
Jet fuel	242	19	262
Diesel fuel	2,058	635	2,693
Fuel oil	181	19	200
Gases	63	-	63
Propylene	146	-	146
Liquified petroleum gas	273	-	273
Petroleum coke	202	40	242
Sulfur	-	49	49

Rompetrol Rafinare S.A. - Petromidia Refinery will continue its development strategies in 2022, the final target being the expansion of activities on all levels from production to marketing, as follows:

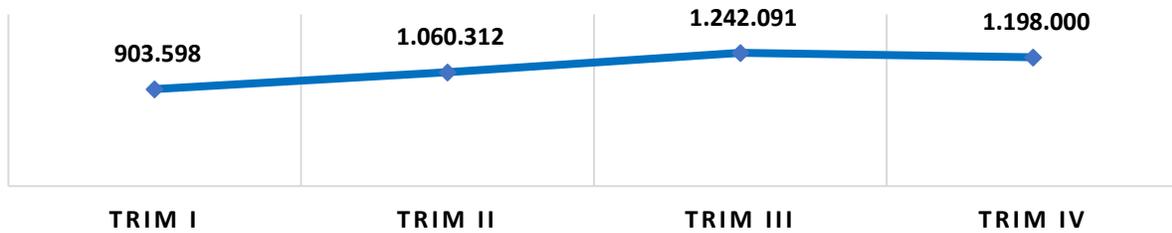
- Gross revenues of 4.248 billion USD, of which internal market 3.568 billion USD (84%) and external market 680 billion USD (16%), as a result of selling 5,366 thousand tons of products;

Internal market deliveries historical evolution:

	2015	2016	2017	2018	2019	2020	2021	2022 Budget
Internal market (%)	53%	54%	55%	56%	60%	70%	73%	75%
Export market (%)	47%	46%	45%	44%	40%	30%	27%	25%



GROSS REVENUES 2022 BUDGET (THOUSAND USD)



Gross revenue including Vega Refinery transfers

2.4 Strategy and objectives

The company strategy is to use the Group's distribution channels both on the domestic and external markets in order to increase its market share.

Major objectives:

- To maintain oil products quality in accordance with the European standards;
- To maximize profitability by targeting increase on the main profitable sales channels (domestic and regional markets);
- To continue the energy efficiency program and technological by implementation projects our internal team, Delfin;
- To decrease processing costs to an optimal level in order to counteract the negative uncontrollable market impact inside the refinery gross margin;
- To increase mechanical availability;
- To comply with the current environmental requirements and to align to the European ones;
- To maintain a high level of safety and work protection.



2.5 Production plan

Operational improvements assumed in the Business Plan 2022, as a result of the already implemented Delfin Program I-IV and additional no cost/low cost initiatives of the New Delfin Program in place:

- Production Initiatives, assuring a higher performance in terms of yields and production performance (e.g. level of Jet Fuel production of 262 ktons assumed within the 2022 Budget; MTBE Yield 2022 performance of 30.5% vs 22% Yield on the year prior to Delfin implementation), increase Propylene yield, increase the synergy between entities: more fuel oil transfer from Vega to PEM refinery in order to be processed in Delayed Coker Unit and increasing performance on the Technological Loss versus previous years (i.e. 0.83% targeted for 2022 Budget);
- Improving white products yield by implementing the following projects during turnaround 2020: Improve 180C2 Coker fractionator operation and 100C1 Atmospheric distillation column- increase heat removal from gasoil pump around;

Key Operational Drivers

Days of operations	days	340
Feedstock Processed, of which:	ktons	5,664
Crud unit consumption	ktons	5,034
Other feedstock	ktons	630
Feedstock run-rate	t/day	16,659
Crude run-rate	t/day	14,805
Production, of which main:	ktons	5,519
Diesel	ktons	2,693
Gasoline	ktons	1,409
Jet	ktons	262
Propylene	ktons	146
LPG	ktons	273
Fuel oil	ktons	200
Gases	ktons	246
Petroleum coke	ktons	241
Sulphur	ktons	49
White products yield	%	85.54%
Technological loss	%	0.83%



The operating plan for 2022 involves processing 5,664 thousand tons of raw materials, of which 5,034 thousand tons crude oil and 630 thousand tons of other raw materials.

2.6 Working capital

The required working capital funding to be utilized for raw materials purchases will be financed through self-resources and by existing credit line facilities. Average lines utilization per each credit facility as follows:

Borrower	Bank / Facility	Average Year utilization (Million USD)
RRC	Banca Transilvania	70
RRC	Credit Sindicalizat (Unicredit, ING, BCR, Raiffeisenbank)	315
RRC	Unicredit Tiriac	13
RRC	Ing Bank	11
RRC	BCR	19
RRC	Raiffeisenbank	16
KMGT (RRC lines)	ING Geneva	0
KMGT (RRC lines)	BCP	0
KMGT (RRC lines)	Credit Agricole	0
KMGT (RRC lines)	Natixis	18
KMGT (RRC lines)	MUFG	0
KMGT (RRC lines)	Sberbank	0
KMGT (RRC linii credit)	Cargill	40
Total Line Utilization		502



3. PETROCHEMICALS DIVISION

3.1 Company Overview

Petromidia Petrochemical Complex was designed and built in the mid 80s, being the newest facility in Romania at that moment, using Romanian technology and foreign technology (Mitsui, Snamprogetti, Heat Research Corporation, Pullman Kellogg etc.).

Technological flow is focused on the production of olefins (ethylene and propylene), later transformed into polyethylene and polypropylene.

The complex is split in four sections: Pyrolysis, Polypropylene, High Density Polyethylene (HDPE) and Low Density Polyethylene (LDPE). Now, operating with polypropylene (PP), Low Density Polyethylene (LDPE), while the steam cracker unit, the propane-propylene splitter, operates to provide the raw material for polypropylene plant and steam generator.

Favorable location, the high synergy of integration with refinery and upgrading works, make Petrochemicals division one of the most interesting companies in this field in Central and Eastern Europe.

3.2 Marketing Strategy

3.2.1 Product Portfolio

The Petrochemicals division activity is organized in several directions:

- production of Polypropylene (PP);
- producing Low Density Polyethylene (LDPE);
- producing High Density Polyethylene (HDPE);
- trading of others petrochemical products;
- ancillary activities (production of steam and brine).

Polypropylene (PP) is obtained by homopolymerization or copolymerization of propylene with microsphere or superactive catalysts at high pressure and low temperature.

Production capacity is 90,000 tons per year.

Grades produced are used for injection, blow molding, film, fiber.

- Injection grades use for: garden furniture, kitchen utensils, toys, crates, boxes, batteries, etc.
- Blow grades are used: blown bodies (drums, containers), pipes, etc.



- Film grades are used for: food packaging, clothing, bioriented film , etc.
- Fibers grades are used for: multifilament's and textile fiber with bleach and ultraviolet resistance, etc.

The product can be supplied in bags of 25 Kg, 1,000 Kg big bags, bulk in tankers or CF.

Low density polyethylene (LDPE) is based on technology in the polymerization of ethylene at pressures up to 2400 kg/cm²G and a temperature of maximum 300°C, in a tubular reactor in the presence of initiators: decanoyl peroxide and oxygen. The reaction is carried out with free radical mechanism and is exothermic.

The production capacity of the plant is 70,000 tones/year of polyethylene.

LDPE grades are used for superfine packaging film, high clarity packaging film with good transparency and luster, agricultural films, protective films, high-strength bags.

The product can be delivered in 25 kg bags, palletized or 1 tons bags (big bags).

High Density Polyethylene (HDPE) Mitsui technology consists in two continuous mixing reactor identical size that can be operated in parallel or series.

The production capacity of the plant is 60,000 tons per year of polyethylene.

Produces grades of high density polyethylene which can be processed by injection, blow molding, extrusion. The main applications are: thin film, molded bodies, pipes, drums.

The product can be delivered in 25 kg bags, palletized or 1 tons bags (big bags).



3.2.2 Market Share

Petrochemicals Division continued in 2021 to be the sole producer of polymers in Romania, polypropylene and polyethylene of low and high density. The strategy developed allowed an increase of the market share.

The quality and diversity of products offered, location and route distribution/delivery, technical assistance, made Petrochemicals division a reliable partner in Romania and the Black Sea region.

One of the advantages of the company is determined by its proximity to clients, providing products in Just-In-Time system, also offering technical advice and assisted monitoring of their production cycle.

3.2.3 Market assumptions

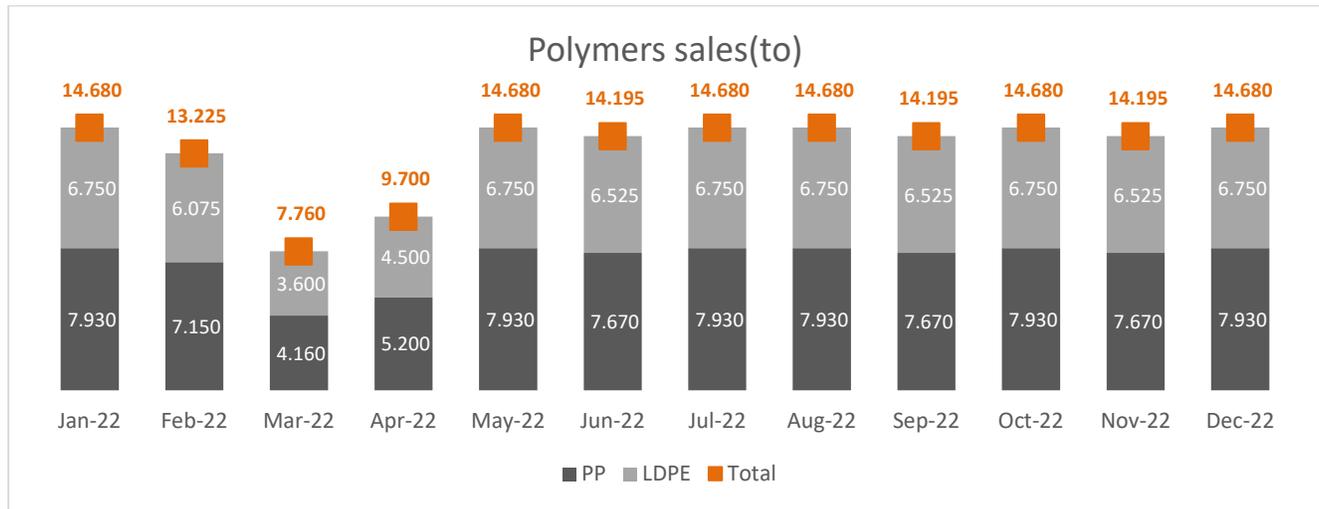
In 2022 budget, the following unit market quotations assumptions for main products have been used:

- Ethylene price was estimated according with the new supply contract at Low Density Polyethylene quotations minus 330 \$/t;
- Low Density Polyethylene price was estimated based on the average margin (difference between raw materials and selling price) of \$ 278/t for the domestic market and \$ 238/t for export;
- Polypropylene price of was determined based on last year's average margin (difference between raw materials and selling price) at \$ 644/t for the domestic market and \$ 574/t for exports.



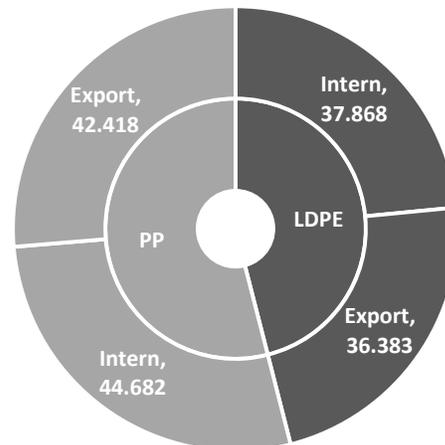
3.2.4 Sales

Total sales of Polymers in 2022 are planned to reach 161,350 tons, of which 87,100 tons of Polypropylene, representing 54%, and 74,250 tons of Low Density Polyethylene representing 46%, according with plants production capacity.



For the internal market it is planned to be delivered 82,550 tons, thereof 54% Polypropylene and 46% Low Density Polyethylene.

	Channel	Quantity	%
PP	Intern	44,682	51%
	Export	42,418	49%
LDPE	Intern	37,868	43%
	Export	36,383	42%





3.2.5 Production plan

- 25-days turnaround, scheduled for March-April;
- **PP production** – 260 tons/day*(n-0.5);
- **LDPE production** – 225 tons/day*(n-1);
- **Swing HDPE into PP production** in order to improve Petrochemicals financial indicators - project under development;
- Production grade:
 - PP
 - *normal grade (raffie, injection) 61%*
 - *special grade (thermoforming, fibers, spunbonded, film) 39%*
 - LDPE
 - *normal grade (film) 99.5%*
 - *special grade (for UV film) 0.5%*

Days of Operation PP Unit	days	335
Days of Operation LDPE	days	330
Days of Operation HDPE	days	0

Feedstock Processed, of which:	ktons	221.6
Propane-Propylene	ktons	145.6
Ethylene	ktons	75.9

Production	ktons	217.2
PP	ktons	87.1
LDPE	ktons	74.2
HDPE	ktons	-
Propane	ktons	28.9
Propylene P	ktons	26.9

PP unit run-rate	t/day	260
LDPE Unit run-rate	t/day	225



4. VEGA REFINERY

4.1 Company Overview

Rompetrol Refinery - Vega Ploiesti is a refinery that focuses on obtaining niche **special products: normal hexane, ecological solvents, heating oil, fuel oil, bitumen**, etc.

In 2021 Vega Refinery managed to achieve operational performances such as:

- lowest technological consumption ever reached: 0.64% wt.

In 2022 Vega Refinery will only process alternative raw materials (such as **naphtha gasoline, C5-C6 cut, slurry, jet and fuel oil**), the only units that will be functional are: Hexane, Rectification, De-aromatization, AFP, Vacuum Distillation and Bitumen.

4.2 Marketing strategy

4.2.1 Portfolio of products

Vega Refinery obtains the following range of **special products**:

- Solvents: Ecological Solvents–Rompetrol SE, Light Solvents and Normal Hexane;
- White spirit;
- Fuel Oil;
- Bitumen: Bitumen and polymer modified bitumen.

Ecological solvents are obtained in De-aromatization unit using Haltermann technology (the most important manufacturer of solvents and special products in Europe).

These new products for domestic and export markets are distinguished primarily by their special qualities, being a range of solvents:

- colourless, with vapor pressures higher or lower depending on the distillation range, which allows to obtain high quality paints;
- with a low content of olefins which allows these solvents to have good stability in time;



- slight smell, with a low degree of toxicity, low content of aromatic hydrocarbons, especially benzene, and low-sulphur, therefore these solvents are in the range of organic products with high degree of dearomatization.

These solvents may be used without limitation in all industries from the chemical industry to the food, pharmaceutical and cosmetics industries also as cleaning agents in textile, leather and shoes industries. Solvent is used in order to obtain varnishes, paints and adhesives, it's a composite in polish and also is used as degreasing agent in the machine building industry, in chemical reaction media, is a component for the petrochemical industry, as well in rubber processing, allowing an organic and safe use.

Normal Hexane is used in polypropylene production and vegetable oil extraction in the food industry. The new quality of n-hexane obtain by Vega Refinery allows a diversification of applications, including: manufacturing and refining of fats, palm and coconut oils which result in products with low content of protein, and respectively defatted cereal germs.

White Spirit is used as solvent in varnishes and dyes industry, in rubber processing and in insecticide conditioning.

The fuel group includes:

- Heating fuel: Rompetrol Calor extra 1 and Rompetrol Calor Economic 3;
- Liquid fuel: liquid fuel type 3 (CLU).

Heating fuel have a quality that is up to European standards, being at the level of any product in its class Heating Oil, which sells in the Western countries. These products are delivered directly to end users, the service being offered by Rompetrol Downstream SRL, member of Rompetrol Group.

The advantages of these products are:

- compliance with European quality standards;
- burn a long time;
- produce a high quantity of heat;
- produce fewer emissions;
- have anti-ageing features against plant depreciation;
- distribution to end users;
- financial consulting for tax incentives provided by legislation;
- territorial coverage at national level.

In 2022 bitumen sales are estimated to 140,245 tonnes, by 50% higher than the previous year, in 2020 Vega refinery reached historical record bitumen sales, of 122,666 tonnes.

The hydro-isolation bitumen is used in the fabrication process of bituminous cement and for waterproofing works in constructions. The Citom is used as bitumen coating for metal pipes to protect them against corrosion.



4.2.2 Market share

Vega Refinery is **the only Romanian producer of Ecological Solvents** – Rompetrol SE and Bitumen.

Vega is also the only producer of normal Hexane in Eastern Europe, this product is used in polypropylene production and vegetable oil extraction in the food industry.

The markets and products that are sold in UE are:

- Hungary, Poland, Bulgaria, Slovakia and Czech Republic for naphtha;
- Germany, Poland and Hungary for ecological solvents;
- Bulgaria for heating oils, gasoil and white spirit;
- Austria, Bulgaria, Poland, France, Italy, Germany and Hungary for n-hexane.

Other markets:

- Ukraine, Moldova Republic and Bosnia for naphtha, ecological solvents and white spirit;
- Serbia, Macedonia, Moldova Republic, Turkey, India, Ukraine, Belarus, Russia and Uzbekistan for n-hexane.

Naphtha sales represent 29% of total sales for 2022.

4.2.3 Competition

Competitors on domestic market:

- OMV Petrom –Brazi Refinery– for fuel oil and heating oil;
- MOL Ungaria, Basell Polonia, Eni Italia, Haifa Israel, Total – for hexane, SBP, white spirit;
- Vitaro Energy SRL - Galati, Bitholder SRL Mangalia/Agigea, MOL Ungaria, Total SRL - Ozun, Lotus Polonia, Burgas Bulgaria, Socar Petroleum - Terminal Teius, Gazprom – Rafinaria Pancevo Serbia, Orlen Asphalt – Rafinaria Trzebinia Polonia– for bitumen.



4.2.4 Market assumptions

In the 2022 budget Rompetrol Rafinare decided to take a prudent approach through usage of an historical level of the market proposed:

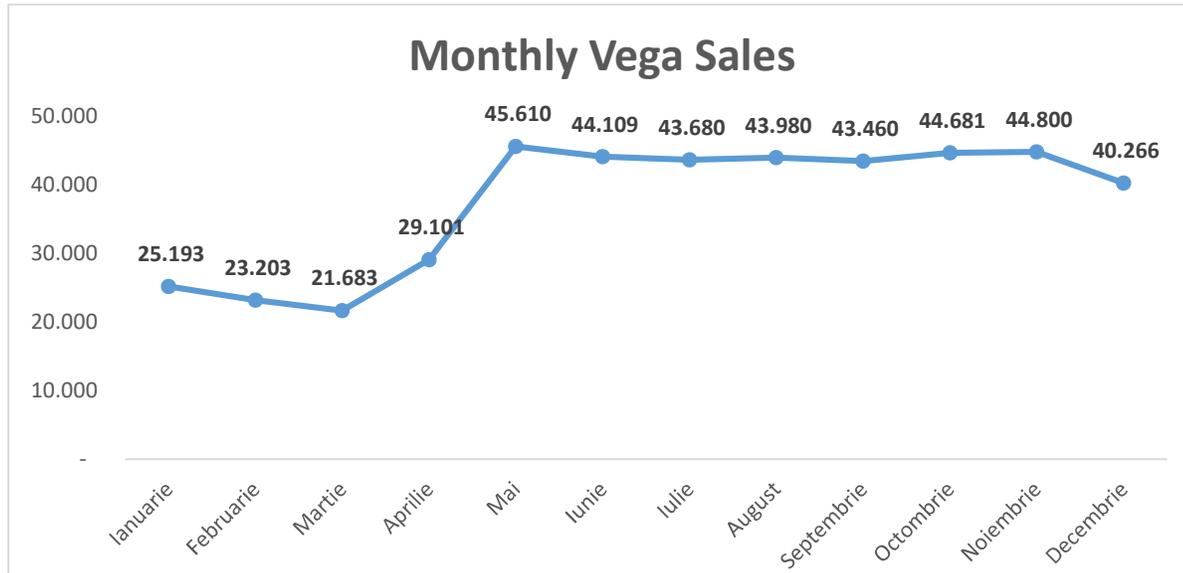
- **Naphtha** Market quotations, used for sales of normal Hexane, level assumed in line with the average unit market crack level of the last past year;
- **Jet** Market quotation used for sales of White spirit, level assumed in line with the average unit market crack level of the last past years;
- **Gasoil 0.1** market quotations used for sales of Calor, level assumed in line with the average unit market crack level of the last past years;
- **Heavy Fuel Oil** market quotation used for sales of Bitumen, level assumed in line with the average unit market crack level of the last past years.

<i>Sales prices 2022</i>	<i>Sales prices (USD/to)</i>		
	Domestic	Export	Average
<i>Naphtha gasoline</i>	469,50	488,28	483,97
<i>Hexane</i>	710,41	654,64	656,89
<i>Ecological Solvents</i>	804,14	534,16	537,60
<i>White spirit</i>	720,88	705,95	712,66
<i>Gasoil & Heating Oils</i>	534,80	0,00	534,80
<i>Light liquid fuel</i>	496,25	0,00	496,25
<i>Bitumen</i>	419,82	0,00	419,82
<i>Fuel oil</i>	385,40	0,00	385,40
Total	435,10	561,92	500,48



4.2.5 Sales

Bitumen sales are influenced by weather due to seasonal market demand and sales are considered between March – December.



Sales 2022	Domestic	Export	Total
Total products, out of which:	217,887	231,878	449,765
<i>Naphtha gasoline</i>	30,048	100,763	130,811
<i>Hexane</i>	3,651	86,988	90,639
<i>Ecological Solvents</i>	525	40,760	41,285
<i>White spirit</i>	2,750	3,367	6,117
<i>Gasoil & Heating Oils</i>	4,114	0	4,114
<i>Light liquid fuel</i>	4,797	0	4,797
<i>Bitumen</i>	140,245	0	140,245
<i>Fuel oil</i>	31,757	0	31,757



4.3 Strategy and objectives:

- To maximize the gross margin for the niche products to bring added value to the business
- Developing near abroad markets for niche products to obtain higher premium price;
- To increase Bitumen production, starting 2015 (production 80 ktons) Vega refinery develop programs in order to achieve 140 ktons/year, while in 2020 managing to reach a level of 123 ktons;
- Higher recovery hexane level due to good quality of Raffinate feedstock received from Petromidia refinery;
- To continue the investment program in order to: reduce the consumption of utilities, technology and to follow the foresights of environmental standards.

4.4 Production Plan

Key Highlights:

- **Naphtha from Vega refinery to PEM of ~ 2.5 ktons/month** starting with January 2022;
- **Fuel oil from Vega refinery to PEM of ~ 14 ktons/year;**
- **Bitumen and Vacuum Distillation unit in operation** between March-December due to seasonal market demand.

Days of operations	days	365
Capacity Utilization	%	137.30%
Feedstock Run-rate	ktons/day	1.241
Feedstock Processed	ktons	453
Production, of which:	ktons	450
Naphtha	ktons	131
Bitumen	ktons	140
Hexane	ktons	91
Fuel Oil	ktons	32
Solvents	ktons	41
Technological Loss	%	0.68%



4.5 Elimination of Acid Tars Vega Refinery Project

4.5.1 Short description of the project

The objective of Rompetrol Refinery S.A. according to the Environmental Agreement no.1/18.02.2015, revised in 14.01.2021, is to rehabilitate the acid tars in VEGA Refinery, and to restore the field for industrial use:

- according with best available techniques (BAT),
- maximum limitation of the risks associated to the health of the population and the environment, Complying with the BATNEEC (Best Available Technique Not Entailing Excessive Cost) principle.

Inside the lagoons were stored acid tars and oil residues collected in the period prior to the privatization of the Vega Ploiesti Refinery (1905 - 1999), with the risk of the presence of unexploded ammunition from the Second World War (UXO).

The project consists of a series of activities and works that involve emptying the lagoons **7-12, 13-15, 16, 17, 18, 19, 20**, treatment of waste and contaminated soil through the Solidification / Stabilization process. The waste treated through Solidification/Stabilization will be re-introduced and stored in successive layers inside the waterproofed lagoons through the encapsulation process called "sarcophagus". The emptied lagoons to the level where respects the requirements specified in the Environmental Agreement will be rehabilitate, in the sense of filling them with material from common pits.

Subsequent use of the site will take into consideration the specific conditions and restrictions imposed by the existence of the covered landfill, depending on the stability of the land and the degree of risk it may present to the environment and human health.

The post-closure destination will take into account the fact that the vegetation and its subsequent use correspond to those allowed in the authorization documents. At the date of execution of the project, ROMPETROL RAFINARE S.A. has not made a decision on the subsequent use of the land, which will be handed over at the grass stage.

4.5.2 Vega Refinery main achievements regarding Acid Tars:

May 1999 - privatization contract, through art. 8.8, Rompetrol S.A., 52 / 5000, as the new majority shareholder of Vega S.A.

„ undertakes to comply, in accordance with the Romanian legislation in force, the minimum accepted environmental objectives, established by Ploiești Environmental Protection Agency presented in Annex no.6".



These objectives included "liquidation of acid tar lagoons and land rehabilitation" in Vega refinery.

2006 – has been stopped storage of acid tars, according to the legislation applicable to non-compliant landfills, based on HG 349/2005. According to this government decision, the lagoons classified as a non-compliant landfill of hazardous industrial waste.

2015 Company obtained the Environmental Agreement based on the studies carried out for the closure of the deposit consisting of the 14 acid tars lagoons; project duration: 4 years; estimated budget: 77 million Euros;

Nov 2017 Prahova Environmental Protection Agency initiated the procedure for suspending the Integrated Environmental Authorization for Vega Refinery due to the fact that the Remediation Project has not started.

2018 – 2020 The activities described in stage I of the project - finalized; Stage II of the work project – started, which consists in the effective treatment and remediation activity (Lagoon 18 finalized, L16&17 – work in progress)

2021 Revised Environmental Agreement issued by Authorities; the company carries out the activities according to the legal requirements.

- The greening works were continued in the lagoon 17, eliminating a quantity of approximately 62,000 tons until March 17, 2022;
- Rehabilitation of access road gate 2 lagoon; arranging access road lagoons 19-20; road arrangement temporary storage access flare;
- Commissioning of electrical panels for the organization of construction sites for lagoons 7-15 and 19-20 (150kw);
- Considering that lagoon 18 was completed on July 31, 2020 and battles 16 and 17 are being rehabilitated under a contract awarded during October 2019 have been initiated since 2021, the aim pursued by the Company being to bring additional resources by hiring several contractors, in order to optimize the rehabilitation works.

4.5.3 2022 Budget

The amount estimated for rehabilitation and remediation of the area where the lagoons containing acid tars and oil residues is 21.77 mil USD.

Important works to be carried out during 2022:

- Finishing of all the works at lagoon 17 (waste treatment, contaminated soil, waterproofing); if it will be is found necessary to excavate at depths greater than 4.5 m (according to the Agreement), for the excavation and execution of the Works (treatment), for each additional 0.5 m, the term of execution of works will be extended according to the agreement of the parties.
- Excavation and treatment works will be executed at lagoon 16,7-12, 19-20.



4.5.4 Aspects regarding the provision established by the company regarding Vega Refinery lagoons decontamination project

On 31.12.2021 the provision established by the company for the completion of all remaining works for the rehabilitation of the battles is at the discounted value of 66.56 mil usd:

- **The inflation rate** estimated by BNR for the period 2023-2025 in percentage of 3% annually;
- **A cost increase**, in amount of about 30% compared to the 2020 prices paid by the company (increases in various areas such as salaries, utilities, additives, etc.) given the impact of the health and financial crisis;
- **The quantity of waste** estimated to be treated, according to the provision of the Agreement in place;
- **The period necessary for the execution of the project works, until 30.06.2025, the company being in advanced discussions with authorities in order to obtain the extension agreement (currently 30.06.2022);**
- Unforeseen elements were considered, representing possible higher amounts of acid tar and contaminated soil waste that may exist in battles, costs regarding UXO detections, other studies and unforeseen activities given the complexity of the project.

The final cost estimated to be borne by the company for the execution of the project works, based on the above elements is 93.81 mil usd, registering an update of 16.81 mil usd.



5. CONSOLIDATED BUDGET INCOME STATEMENT (Petromidia Refinery, Vega Refinery and Petrochemicals division)

Budget Income Statement for 2022*					
(Thousand USD)					
Description	Year 2022	Q1	Q2	Q3	Q4
GROSS REVENUES	4,404,002	903,598	1,060,312	1,242,091	1,198,000
SALES TAXES	(1,392,283)	(320,644)	(319,359)	(372,254)	(380,025)
Net revenues	3,011,719	582,954	740,953	869,837	817,975
COST OF SALES	(3,009,364)	(607,555)	(729,932)	(856,992)	(814,885)
GROSS MARGIN	2,355	(24,601)	11,021	12,845	3,089
SELLING, GENERAL & ADMINISTRATION	(48,250)	(11,238)	(11,698)	(12,414)	(12,900)
ADJUSTMENT Depreciation & Amortization	96,647	24,162	24,162	24,162	24,162
EBITDA	50,752	(11,677)	23,485	24,593	14,351
PROVISIONS	32,480	(242)	(242)	(229)	33,193
EBIT/Operating Profit/(Loss)	(13,415)	(36,080)	(918)	202	23,382
Interest & commissions, net	(35,969)	(8,198)	(8,896)	(8,287)	(10,588)
PROFIT/(LOSS) Before Income Tax	(49,384)	(44,278)	(9,815)	(8,085)	12,793
Deferred tax	(5,374)	-	-	-	(5,374)
NET PROFIT/(LOSS)	(54,758)	(44,278)	(9,815)	(8,085)	7,420

Budget 2022 for approved by board of directors Rompetrol Rafinare



Income and expenses budget of Rompetrol Rafinare S.A. for 2022 will be subject to approval at the Ordinary General Assembly of Shareholders scheduled for April 23, 2022.

THE BOARD OF DIRECTORS:

**Chairman
Yedil Utekov**

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Yedil Utekov

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**Member
Alexey Golovin**

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Alexey Golovin

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**Member and General Manager
Felix Crudu-Tesloveanu**

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Felix Crudu-Tesloveanu

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**Member
Bogdan-Catalin Steriopol**

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Bogdan Catalin Steriopol

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**Member
Nicolae Bogdan Codruț Stănescu**

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Nicolae Bogdan Codrut Stanescu

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**Finance Manager
Ramona-Georgiana Galateanu**

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Ramona-Georgiana Galateanu

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**Planning and Performance Management Director
Alexandru Stăvărache**

DocuSigned by:

Alexandru Stavarache

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