



**rompetrol**

KazMunayGas  
International  
Group Member

2024

# Rompetrol Rafinare S.A.

## 2024 BUDGET PRESENTATION

---

ROMPETROL RAFINARE SA

215 Năvodari Blvd. Administrative Building, 905700, Năvodari, Constanța, ROMANIA  
fax: + (40) 241 506 930 | phone: + (40) 241 506 207 | email: office.rafinare@rompetrol.com

[www.rompetrol.com](http://www.rompetrol.com)



## Table of Contents

|   |           |
|---|-----------|
| <b>1. BUSINESS PLAN EXECUTIVE SUMMARY</b> | <b>3</b>  |
| 1.1 Key macroeconomic assumptions         | 3         |
| 1.2 Other key budget assumptions          | 3         |
| 1.3 Petromidia refinery                   | 4         |
| 1.4 Vega refinery                         | 5         |
| 1.5 Petrochemicals                        | 5         |
| <b>2. PETROMIDIA REFINERY</b>             | <b>6</b>  |
| 2.1 Presentation                          | 6         |
| 2.2 Short history                         | 6         |
| 2.3 Brief History 2023                    | 7         |
| 2.4 Marketing Strategy                    | 8         |
| 2.4.1 Portfolio of products               | 8         |
| 2.4.2 Competition                         | 9         |
| 2.4.3 Market assumptions                  | 9         |
| 2.4.4 Sales                               | 11        |
| 2.5 Strategy and objectives               | 13        |
| 2.6 Production plan                       | 15        |
| 2.7 Utilities costs                       | 16        |
| 2.8 Working capital                       | 17        |
| <b>3. PETROCHEMICALS DIVISION</b>         | <b>18</b> |
| 3.1 Company Overview                      | 18        |
| 3.2 Marketing Strategy                    | 18        |
| 3.2.1 Product Portfolio                   | 18        |
| 3.2.2 Market Share                        | 19        |
| 3.2.3 Market assumptions                  | 20        |
| 3.2.4 Sales                               | 20        |
| 3.3 Production plan                       | 21        |
| 3.4 Utilities costs                       | 21        |



|   |    |
|---|----|
| <b>4. VEGA REFINERY</b> .....   | 22 |
| 4.1 Company Overview.....   | 22 |
| 4.2 Marketing strategy.....   | 22 |
| 4.2.1 Portfolio of products.....  | 22 |
| 4.2.2 Market share.....   | 24 |
| 4.2.3 Competition .....   | 24 |
| 4.2.4 Sales .....   | 25 |
| 4.3 Strategy and objectives:.....   | 25 |
| 4.4 Production Plan.....  | 26 |
| 4.5 Utilities costs.....  | 26 |
| 4.6 Elimination of Acid Tars Vega Refinery Project .....  | 27 |
| 4.6.1 Short description of the project.....   | 27 |
| 4.6.2 Vega Refinery main achievements regarding Acid Tars: .....  | 27 |
| 4.6.3 2024 Budget.....  | 28 |
| <b>5. CONSOLIDATED BUDGET INCOME STATEMENT (Petromidia Refinery, Vega Refinery and Petrochemicals division)</b> ..... | 28 |



# 1. BUSINESS PLAN EXECUTIVE SUMMARY

## 1.1 Key macroeconomic assumptions

- **Market Refining Margin:** 2024 Market Refining Margin assumed at 45.52 \$/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:

| EUR/USD | EUR/RON | USD/RON |
|---------|---------|---------|
| 1.14    | 5.04    | 4.41    |

- **Excises:** the assumptions for 2024 excises levels have considered increases on diesel and gasoline:

|          |                 |
|----------|-----------------|
| Gasoline | 2,305.64 RON/to |
| Diesel   | 1,931.61 RON/to |
| LPG      | 776.09 RON/to   |

- **EUA Certificates:** 2024 budget estimation on prices for EUA certificates stands at 85 EUR/certificate.

## 1.2 Other key budget assumptions

- **Utilities:** the main assumptions on 2024 budgeted tariffs for utilities include:

|              |                  |
|--------------|------------------|
| Natural gas  | 643 USD/'000 Ncm |
| Power        | 147USD/MWh       |
| Steam 16 bar | 139 USD/Gcal     |
| Steam 36 bar | 139 USD/Gcal     |



- **Total average staff headcount** considered for 2024 budget is 1,131 employees:

| <b>Headcount</b>           | <b>2024</b>  |
|----------------------------|--------------|
| <b>TOTAL</b>               | <b>1,131</b> |
| <b>Petromidia Platform</b> | <b>944</b>   |
| Production                 | 790          |
| <i>Petromidia refinery</i> | 415          |
| <i>Petrochemicals</i>      | 161          |
| <i>Utilities division</i>  | 215          |
| Selling                    | 47           |
| General & Administrative   | 107          |
| <b>Vega</b>                | <b>188</b>   |
| Production                 | 161          |
| Selling                    | 7            |
| General & Administrative   | 14           |
| CAPEX & Services           | 6            |

### 1.3 Petromidia refinery

- 4.95 million tons Total Feedstock Processed, with a run rate of 15.936 ktons/day
- 4.65 million tons crude oil processed during 2024, with a run rate of 14.951 ktons/day (Crude Unit diet – 64% Kebco, 24% Azeri Light, 13% CPC);
- 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;
- Planned Turnaround of 55 days, which includes ISCIR activities and the replacement of all refinery catalysts of the unit, of which 45 days are assumed for mechanical work activities in the period March 10-May 3, 2024;



## 1.4 Vega refinery

- Total feedstock processed at a level of 413.1 ktons;
- The total production influenced by Petromidia availability;
- Bitumen unit in operation between March-December, in line with the seasonal market demand.

## 1.5 Petrochemicals

- 2024 targeted production of 185 ktons;
- PP Unit: normal operation, full integration with PEM refinery, with 55 days of turnaround scheduled during March-May;
- LDPE Unit: normal operation according also with continuous supply of Ethylene, with 55 days of turnaround scheduled in March.



## 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 CH<sub>4</sub> 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/Nm<sup>3</sup> SO<sub>2</sub> 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.

### **2.3 Brief History 2023**

In 2023, the Petromidia Refinery reacted to market changes, optimizing/maximizing the production of valuable products.

Petromidia managed to capture market opportunities by diversifying the structure of processed raw materials, especially replacing expensive crude oil with cheaper ones such as Kirkuk (heavy and sulphurous crude oil of Iraqi origin), with a positive impact on the gross refining margin, also considering the technological flexibility and operational of the refinery. This opportunity could only be applied in the first 3 months of 2023 because the export of this type of crude oil from the port of Ceyhan-Türkiye was suspended, considering the geopolitical conflict between Iraq and Kurdistan.

Since late June, the refinery's flexibility to process cheap crude has been significantly reduced due to the incident at the Mild Catalytic Hydrocracking unit (MHC).

The processing of raw materials achieved in 2023 is 5.012 million tons, of which 4.3 million tons of crude oil and 677 thousand tons of other raw materials, this being influenced by a series of technological works started at the end of January (catalyst replacement and regeneration, furnace decoking from Delayed Coker unit and other

Page 7 of 30





mechanical works) and the unplanned shutdown of the MHC unit following the incident on June 21, 2023.

The total feedstock processed is lower by 670 thousand tons (12%) than the budgeted one, this being influenced by the operation of the refinery without the MHC unit. The Petromidia Refinery imported 322 thousand tons of component diesel to ensure deliveries to the domestic market.

From an operational point of view, the refinery operated at a capacity of 13,984 tons of raw materials per day, based on the actual working time.

Petromidia produced 2.14 million tons of diesel fuel, corresponding to a yield of 44.20% achieved by the refinery, and Jet A1 production of 310 thousand tons was also achieved, corresponding to a yield of 6.33%.

In order to maximize the yield of Jet A1, an initiative was implemented, whereby part of the gasoline obtained in the Fluid Catalytic Cracking unit was separated and sent for processing in the Kerosene Hydrotreater unit. Following the implementation of this initiative, an additional quantity of approximately 1,500 tons per month of Jet A1 was obtained.

In order to reduce processing cost, during 2023, several initiatives were implemented with the aim of optimizing refinery gas production. One of these initiatives was that of redirecting part of the propane fraction produced in the refinery into the fuel gas system.

The operation of the refinery's units is carried out in accordance with the highest performance standards, ensuring at the same time compliance with the commitments made regarding environmental protection.

## **2.4 Marketing Strategy**

### **2.4.1 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 main customers on the domestic market are: Rompetrol Downstream SRL, Rompetrol Gas SRL, OMV Petrom, MOL Romania Petrol, Air BP Sales, Elsid SA, Rompetrol Energy SA. The main export partner is: KazMunayGas Trading AG.

The KMG International Group regional expansion in Greece, Georgia, Turkey, Bulgaria, Moldova or Serbia, as well will ensure the growth of the portfolio of clients.

### 2.4.2 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.

### 2.4.3 Market assumptions

Proposed assumption for Crude quotations level:

|                          |        |       |
|--------------------------|--------|-------|
| Brent Dated              | \$/bbl | 80.00 |
| CPC Blend CIF            | \$/bbl | 77.20 |
| Brent – CPC Differential | \$/bbl | -2.80 |

### Key Products Market Cracks vs Urals - \$/ton

The difference between the quotations of the main finished products and the crude oil quotations assumed in the 2024 budget are based on the average of the quotations published by Kpler, WoodMackenzie and Platts Pira, and led to a 1F refining market margin of 45.52 usd/t, keeping an optimistic approach compared to all other references and in line with the estimated market.

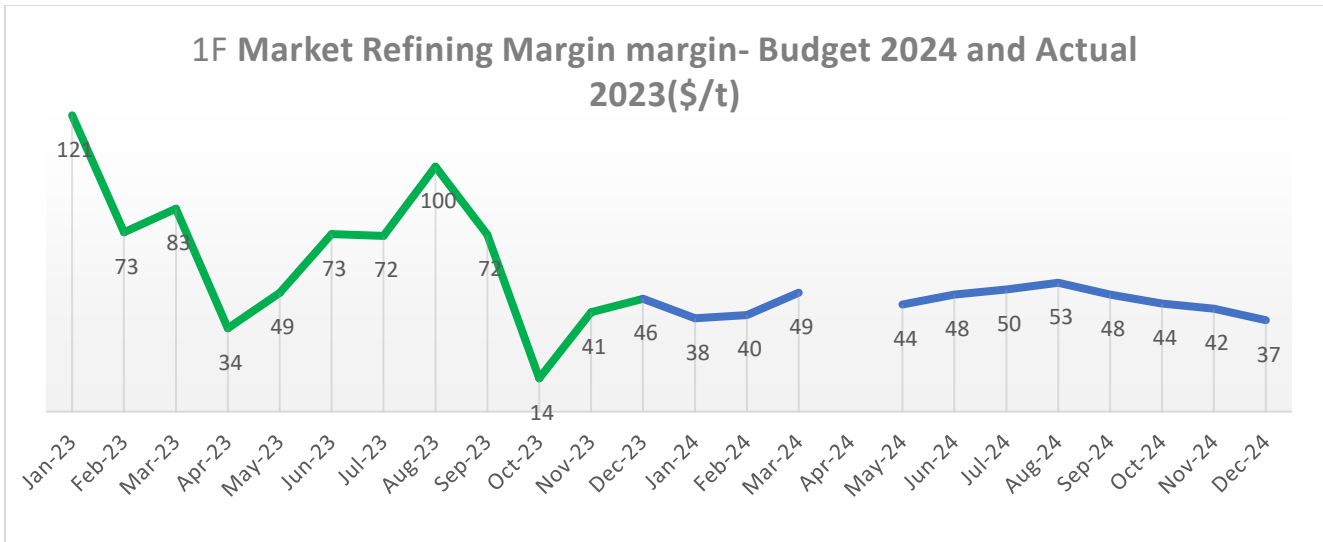


- **1F Market Refining Margin (\$/t) Budget 2024**

| <b>1F Market Refining Margin (\$/t)</b> | <b>45.52</b>               |                          |
|---|----------------------------|--------------------------|
|   | Market quotation<br>(\$/t) | Production<br>yields (%) |
| <b>Raw materials</b>                    | <b>594.6</b>               | <b>100.0%</b>            |
| CPC                                     | 609.8                      | 11.9%                    |
| KEBCO                                   | 550.8                      | 59.8%                    |
| AZERI                                   | 610.4                      | 22.2%                    |
| BIODIESEL                               | 1,194.0                    | 2.1%                     |
| BIOETHANOL                              | 1,118.9                    | 0.7%                     |
| METHANE                                 | 724.3                      | 1.1%                     |
| MTBE                                    | 961.2                      | 0.6%                     |
| Other raw materials                     | 645.0                      | 1.5%                     |
|   |                            |                          |
| <b>Production</b>                       | <b>640.1</b>               | <b>100.0%</b>            |
| GASOLINE                                | 768.9                      | 22.8%                    |
| DIESEL                                  | 717.0                      | 44.0%                    |
| JET                                     | 748.3                      | 6.3%                     |
| NAPHTHA                                 | 630.4                      | 1.3%                     |
| LPG                                     | 513.5                      | 4.6%                     |
| PROPYLENNE-PROPANE                      | 914.0                      | 2.4%                     |
| RAFFINATE                               | 630.4                      | 4.3%                     |
| FUEL OIL                                | 425.5                      | 0.5%                     |
| HEAVY FUEL                              | 425.5                      | 2.5%                     |
| SLURRY                                  | 486.8                      | 0.1%                     |
| COKE                                    | 151.7                      | 4.1%                     |
| SULPHUR                                 | 126.4                      | 1.1%                     |
| Other loss and gas                      |                            | 5.9%                     |

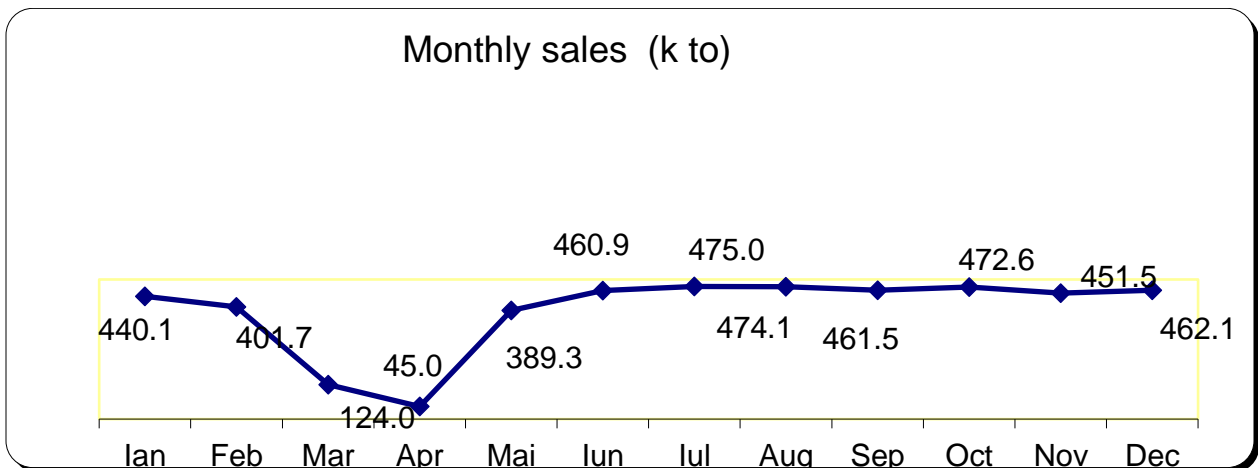
Market Refining Margin (1F) represents the difference between:

- 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.



### 2.4.4 Sales

During 2024, the quantities sold in the first period of the year are influenced by the planned shutdown for the turnaround of the units in the March-May period.



Regarding the market orientation/product placement strategy, within 2024 the company will follow the increase sales as last year for the gasoline and diesel sales in Romania by 4% and increase sales on external market by 7% versus 2023, with a monthly average rate of 283 ktons on the domestic market and 105 ktons on the export market.

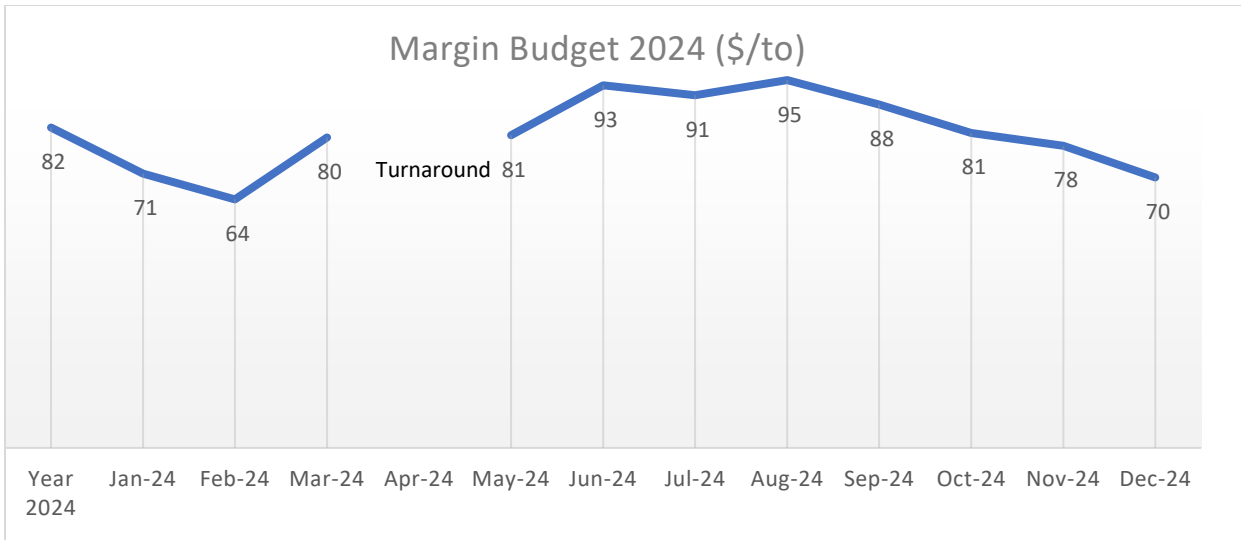


| <b>Sales 2024(kto)</b>               | <b>Domestic</b> | <b>Export</b> | <b>Total</b> |
|--------------------------------------|-----------------|---------------|--------------|
| <b>Total products, out of which:</b> | <b>3,401</b>    | <b>1,256</b>  | <b>4,657</b> |
| Gasoline                             | 566             | 772           | 1,338        |
| Jet fuel                             | 298             | 14            | 312          |
| Diesel fuel                          | 1,805           | 381           | 2,186        |
| Light fuel oil                       |                 |               |              |
| Fuel oil                             | 130             | 22            | 152          |
| Vacuum distillate                    |                 | -             | -            |
| Gases                                | 66              |               | 66           |
| Propylene                            | 121             |               | 121          |
| Liquified petroleum gas              | 226             |               | 226          |
| Petroleum coke                       | 189             | 15            | 204          |
| Sulphur                              |                 | 52            | 52           |

Rompetrol Rafinare S.A. - Petromidia Refinery will continue its development strategies in 2024, the final target being the expansion of activities on all levels from production to marketing, as follows:

- Gross revenues of 4.367 billion USD, of which internal market 34.473 billion USD (80%) and external market 894 billion USD (20%), as a result of selling 4,657 thousand tons of products;
- Increase of petroleum on sales internal market by 8% as against 2023, year comparable from the volume point of view, and increase of petroleum sales on external market by 11%

The refining activity estimates for year 2024, refinery margin of 82 USD/sales ton.



Internal & Export market deliveries historical evolution:

|                     | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 Budget |
|---------------------|------|------|------|------|------|------|------|------|------|-------------|
| Internal market (%) | 53%  | 54%  | 55%  | 56%  | 60%  | 70%  | 72%  | 67%  | 69%  | 73%         |
| Export market (%)   | 47%  | 46%  | 45%  | 44%  | 40%  | 30%  | 28%  | 33%  | 31%  | 27%         |

## 2.5 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.



## 2.6 Production plan

Operational improvements assumed in the Business Plan 2024, as a result of the already implemented Delfin Program:

- Production initiatives, assuring a higher performance in terms of yields and production performance (for example, maximizing valuable products, increasing compared to previous years of refinery gas in the context of exponential energy growth and by increasing the synergy between entities by optimizing the transfer of raw materials).
- Optimizing the processing cost by increasing the transfer of fuel oil to Rompetrol Energy in order to reduce the cost of steam production.

### Key Operational Drivers

| 2024                           |       |        |
|--------------------------------|-------|--------|
| Days of operations             | days  | 311    |
| Feedstock Processed, of which: | ktons | 4,956  |
| Crud unit consumption          | ktons | 4,650  |
| Other feedstock                | ktons | 306    |
| Feedstock run-rate             | t/day | 15,936 |
| Crude run-rate                 | t/day | 14,951 |
| Production, of which main:     | ktons | 4,662  |
| Diesel                         | ktons | 2,190  |
| Gasoline                       | ktons | 1,338  |
| Jet                            | ktons | 312    |
| Propylene                      | ktons | 121    |
| LPG                            | ktons | 226    |
| Fuel oil                       | ktons | 151    |
| Fuel gas                       | ktons | 66     |
| Petroleum coke                 | ktons | 204    |
| Sulphur                        | ktons | 52     |
| White products yield           | %     | 86%    |
| Technological loss             | %     | 0.80%  |

The operating plan for 2024 involves processing 4,956 thousand tons of raw materials, of which 4,650 thousand tons crude oil and 306 thousand tons of other raw materials.





## 2.7 Utilities costs

Utilities conversion cost in the 2024 budget is estimated at the level of 104.41 mUSD:

| <u>Petromidia</u> |                    | Utilities qty | Utilities tariffs (\$/UM) |
|-------------------|--------------------|---------------|---------------------------|
| Natural gas       | '000Ncm            | 17,738        | 643                       |
| Steam 16 bar      | Gcal               | 129,663       | 139                       |
| Steam 36 bar      | Gcal               | 200,121       | 139                       |
| Power             | MWh                | 295,374       | 147                       |
| Demin water       | m <sup>3</sup>     | 1,069,983     | 2                         |
| Drinking water    | m <sup>3</sup>     | 205,800       | 2                         |
| Raw water         | '000m <sup>3</sup> | 10,200        | 18                        |
|                   |                    |               | 103.90                    |
| Other             |                    |               | 0.51                      |
| <b>Total</b>      | <b>mln \$</b>      |               | <b>104.41</b>             |



## 2.8 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 (Creditor) / Facility  | Average Year utilization (Million USD) |
|-------------------------------|---|--|
| RRC                           | Banca Transilvania  | 35                                     |
| RRC                           | Facility A Syndicated Loan (BCR, Raiffeisen Bank, ING, UniCredit Bank, Alpha Bank, OTP, Garanti Bank) | 266                                    |
| RRC                           | Facility B Syndicated Loan - Unicredit Tiriac   | 40                                     |
| RRC                           | Facility B Syndicated Loan - ING Bank   | 44                                     |
| RRC                           | Facility B Syndicated Loan - BCR  | 41                                     |
| RRC                           | Facility B Syndicated Loan - Raiffeisenbank   | 38                                     |
| RRC                           | Facility B Syndicated Loan - Alpha Bank   | 25                                     |
| RRC                           | Facility B Syndicated Loan - Garanti Bank   | 11                                     |
| RRC                           | Facility B Syndicated Loan - OTP Bank   | 8                                      |
| KMGT (RRC credit lines)       | ING Geneva  | 15                                     |
| KMGT (RRC credit lines)       | Credit Agricole   | 10                                     |
| KMGT (RRC credit lines)       | Natixis   | 17                                     |
| KMGT (RRC credit lines)       | MUFG  | 27                                     |
| KMGT (RRC credit lines)       | Cargill   | 50                                     |
| KMGT (RRC credit lines)       | Cargill   | 50                                     |
| KMGT (RRC credit lines)       | Cargill   | 50                                     |
| <b>Total Line Utilization</b> |   | <b>726</b>                             |



## 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.).

The 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.

### 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

Page 18 of 30



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/cm<sup>2</sup>G 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 2023 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.



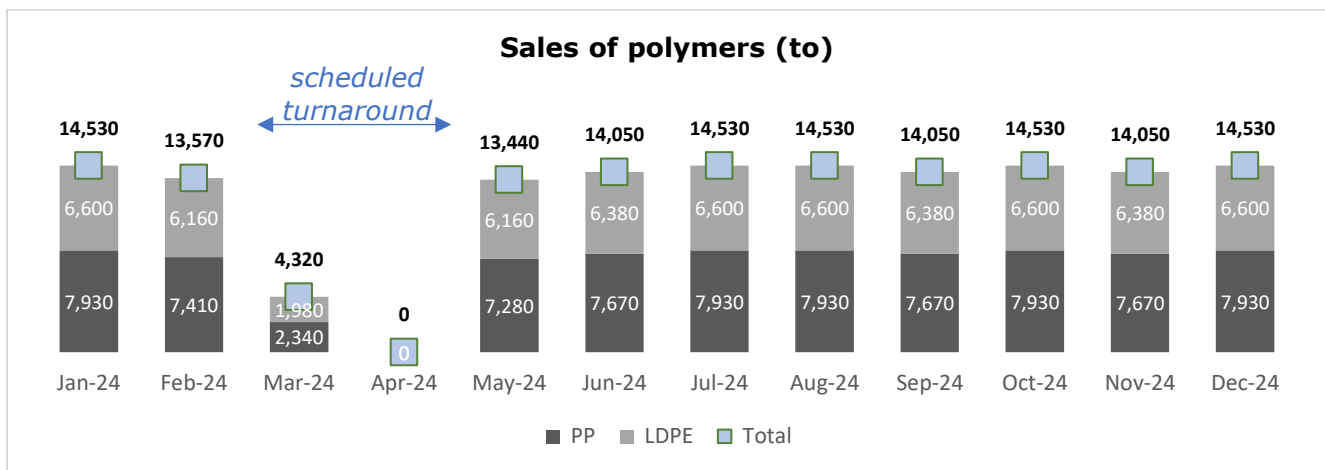
### 3.2.3 Market assumptions

For 2024 budget, the following unit market assumptions for main products have been considered:

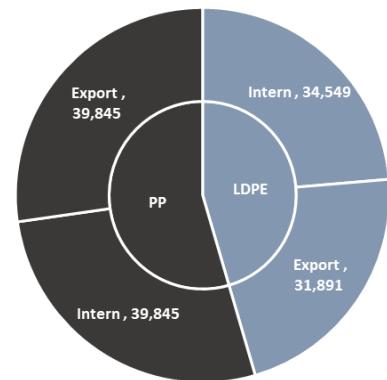
- Ethylene price was estimated at an average value of 980 \$/to, taking into account the average prices from the previous year;
- The estimated selling price for low-density polyethylene was determined based on an average crack (the difference between the raw materials and the selling price) of 450 \$/to for the domestic market and 410 \$/to for export;
- The estimated selling price for polypropylene was determined based on an average crack (the difference between the raw materials and the selling price) of 635 \$/to for the domestic market and 565 \$/to for export.

### 3.2.4 Sales

Total sales of Polymers in 2024 are planned to reach 146,130 tons, of which 79,690 tons of Polypropylene, representing 55%, and 66,440 tons of Low Density Polyethylene representing 45%, according with plants production capacity.



For the internal market it is planned to be delivered 74,394 tons i.e. 54% of Polypropylene and 46% of Low Density Polyethylene.





### 3.3 Production plan

- 55 days turnaround scheduled during March-May;
- PP production – 260 tons/day\*(n-0.5);
- LDPE production – 220 tons/day\*(n-1);
- Production grade:
  - PP
    - normal grade (raffia, injection) 75%
    - special grade (thermoforming, fibers, spunbond, film) 25%
  - LDPE
    - normal grade (film) 99.1%
    - special grade (for UV film) 0.9%

| 2024                           |        |     |
|--------------------------------|--------|-----|
| Days of Operation PP Unit      | days   | 307 |
| Days of Operation LDPE         | days   | 302 |
| Days of Operation HDPE         | days   | 0   |
| <hr/>                          |        |     |
| Feedstock Processed, of which: | ktons  | 189 |
| Propane-Propylene              | ktons  | 121 |
| Ethylene                       | ktons  | 68  |
| <hr/>                          |        |     |
| Production                     | ktons  | 185 |
| PP                             | ktons  | 80  |
| LDPE                           | ktons  | 66  |
| HDPE                           | ktons  | 0   |
| Propane                        | ktons  | 24  |
| Propylene P                    | ktons  | 15  |
| <hr/>                          |        |     |
| PP unit run-rate               | to/day | 260 |
| LDPE unit run-rate             | to/day | 220 |

### 3.4 Utilities costs

Utilities conversion cost in the 2024 budget are estimated at the level of 67.0 mUSD:

| <u>Petrochemicals</u> |                | Utilities qty | Utilities tariffs (\$/UM) |
|-----------------------|----------------|---------------|---------------------------|
| Power                 | MWh            | 142,039       | 146                       |
| Steam - 16 bar UTM    | Gcal           | 271,362       | 139                       |
| Steam - 36 bar UTM    | Gcal           | 58,785        | 139                       |
| Demin water           | m <sup>3</sup> | 82,490        | 2                         |
| Drinking water        | m <sup>3</sup> | 66,960.00     | 2                         |
| <b>Total</b>          | <b>mln \$</b>  |               | <b>67.0</b>               |



## 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 2023 Vega Refinery managed to achieve operational performances such as:

- lowest technological consumption ever reached: 0.58% wt;
- lowest energy consumption per throughput : 2.33 GJ/to.

In 2024 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 ***KMG International Group***.

In 2024 bitumen sales are estimated to 105,546 tonnes, by 1% 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:

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

Other markets:

- Ukraine, Serbia and Moldova Republic for naphtha, ecological solvents and white spirit;
- Serbia, Macedonia, Moldova Republic, Turkey, India, Ukraine, Kazakhstan, Maroc, Pakistan and Uzbekistan for n-hexane.

## 4.2.3 Competition

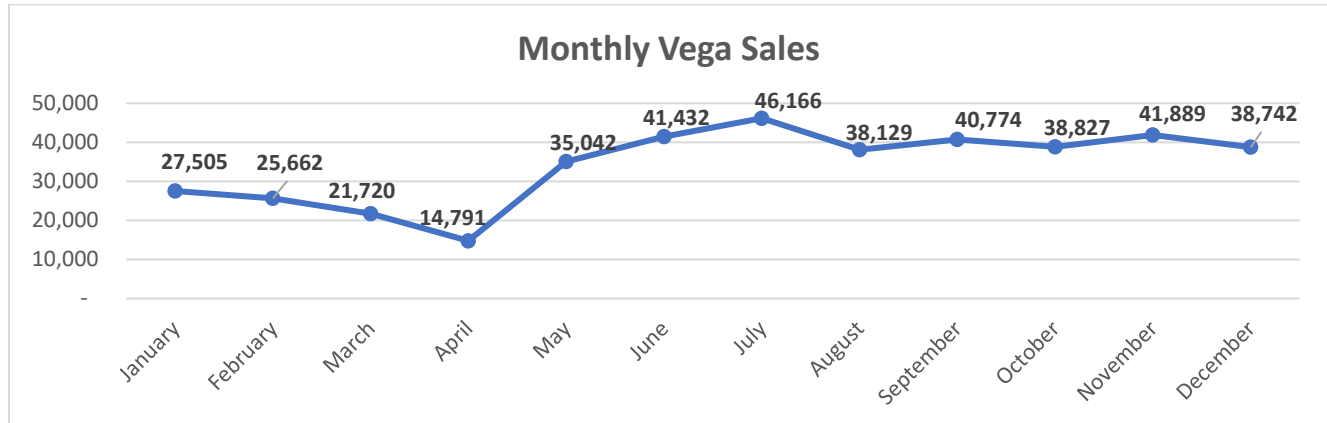
Competitors on domestic market:

- OMV Petrom –Brazi Refinery– for fuel oil and heating oil;
- MOL Hungary, Basell Poland, PKN Orlen Poland, Eni Italy, Haifa Israel – for hexane, SBP, white spirit;
- Bitholder SRL Agigea, Transbitum SRL Mangalia, MOL Hungary, Total SRL - Ozun, Lotus Poland, Burgas Bulgaria, Guven Asphalt Floresti, Rafinaria Trzebinia Poland, Hellenic Petroleum Greece, Vitaro Energy - Galati – for bitumen.



### 4.2.4 Sales

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



| <b>Sales 2024</b>                    | <b>Domestic</b> | <b>Export</b>  | <b>Total</b>   |
|--------------------------------------|-----------------|----------------|----------------|
| <b>Total products, out of which:</b> | <b>179,035</b>  | <b>231,644</b> | <b>410,679</b> |
| Naphtha gasoline                     | 30,633          | 100,702        | 131,335        |
| Hexane                               | 4,530           | 85,574         | 90,104         |
| Ecological Solvents                  | 550             | 42,853         | 43,403         |
| White spirit                         | 2,400           | 2,515          | 4,915          |
| Gasoil & Heating Oils                | 6,185           | 0              | 6,185          |
| Light liquid fuel                    | 9,825           | 0              | 9,825          |
| Bitumen                              | 105,546         | 0              | 105,546        |
| Fuel oil                             | 19,366          | 0              | 19,366         |

### 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/ average month** starting with January 2024;
- **Fuel oil from Vega refinery to PEM of - 6 ktons/year;**
- **Bitumen and Vacuum Distillation unit in operation** between March-December due to seasonal market demand.

|                       |           |        |
|-----------------------|-----------|--------|
| Days of operations    | days      | 360    |
| Capacity Utilization  | %         | 125.2% |
| Feedstock Run-rate    | ktons/day | 1.148  |
| Feedstock Processed   | ktons     | 413    |
| Production, of which: | ktons     | 411    |
| Naphtha               | ktons     | 131    |
| Bitumen               | ktons     | 106    |
| Hexane                | ktons     | 90     |
| Fuel Oil              | ktons     | 19     |
| Solvents              | ktons     | 43     |
| Technological Loss    | %         | 0.60%  |

## 4.5 Utilities costs

Utilities conversion cost in the 2024 budget is estimated at the level of 15.4 mUSD:

| <b>Vega</b>  |               | <b>Utilities qty</b> | <b>Utilities tariffs (\$/UM)</b> |
|--------------|---------------|----------------------|----------------------------------|
| Natural gas  | '000Ncm       | 20,870               | 655                              |
| Power        | MWh           | 8,987                | 195                              |
| <b>Total</b> | <b>mln \$</b> |                      | <b>15.4</b>                      |



## 4.6 Elimination of Acid Tars Vega Refinery Project

### 4.6.1 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.

### 4.6.2 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.

**2022** – Revised Integrated Environmental Authorization;

- Finalised procedure of Environmental Agreement;
- Finishing of the works lagoon 17 (waste treatment, contaminated soil, waterproofing, installation of leakage monitoring sensor system);
- Commissioning of wells 5 (21.5 m<sup>3</sup>/h) and 8 (14.4 m<sup>3</sup>/h).

**2023** - Contracting the realization of the Technical Project of Closure and Post-closure Monitoring in order to establish the Fund for closing the waste deposit according to the obligations of the revised Environmental Integrated Permit for Vega Refinery;

- Elaboration of a technical project for closing a non-compliant warehouse;
- Creation of a fund for waste deposit closure.

### 4.6.3 2024 Budget

**The amount estimated for** rehabilitation and remediation of the area where the lagoons containing acid tars and oil residues is 42.32 mil USD.

Important works to be carried out during 2024:

- We currently have an tender in progress of completion, after which we will continue the greening works for lagoons 19-20;
- Update of the waste deposit closure fund (update regulated by OG 2/2021).

As of 31 December 2023, the Company recognized an environmental provision of RON 424.0 million (94.3 million USD) for the rehabilitation of Vega lagoons, and as the rehabilitation works are executed, the value of the provision will be updated considering its reduction with the value of the executed works respectively 42.32 million USD in 2024.



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

| (Thousand USD)                                    |                    |                  |                  |                    |                    |
|---|--------------------|------------------|------------------|--------------------|--------------------|
| Description                                       | Year 2024          | Q1               | Q2               | Q3                 | Q4                 |
| <b>GROSS REVENUES</b>                             | <b>4,516,117</b>   | <b>913,529</b>   | <b>885,788</b>   | <b>1,395,472</b>   | <b>1,321,329</b>   |
| SALES TAXES                                       | (996,158)          | (198,739)        | (199,732)        | (317,343)          | (280,344)          |
| Net revenues                                      | 3,519,959          | 714,789          | 686,056          | 1,078,129          | 1,040,984          |
| <b>COST OF SALES</b>                              | <b>(3,415,777)</b> | <b>(717,224)</b> | <b>(660,343)</b> | <b>(1,020,700)</b> | <b>(1,017,510)</b> |
| <b>GROSS MARGIN</b>                               | <b>104,182</b>     | <b>(2,434)</b>   | <b>25,713</b>    | <b>57,429</b>      | <b>23,474</b>      |
| <b>SELLING, GENERAL &amp; ADMINISTRATION</b>      | <b>(65,326)</b>    | <b>(15,695)</b>  | <b>(14,940)</b>  | <b>(16,162)</b>    | <b>(18,530)</b>    |
| <b>ADJUSTMENT Depreciation &amp; Amortization</b> | <b>85,063</b>      | <b>20,453</b>    | <b>22,095</b>    | <b>21,804</b>      | <b>20,711</b>      |
| <b>EBITDA</b>                                     | <b>123,918</b>     | <b>2,324</b>     | <b>32,868</b>    | <b>63,071</b>      | <b>25,655</b>      |
| <b>PROVISIONS</b>                                 | <b>(0)</b>         | <b>(4,055)</b>   | <b>(7,790)</b>   | <b>(14,765)</b>    | <b>26,610</b>      |
| <b>EBIT/Operating Profit/(Loss)</b>               | <b>38,855</b>      | <b>(22,184)</b>  | <b>2,983</b>     | <b>26,502</b>      | <b>31,554</b>      |
| <b>Interest &amp; commissions, net</b>            | <b>(72,655)</b>    | <b>(15,828)</b>  | <b>(17,946)</b>  | <b>(16,544)</b>    | <b>(22,337)</b>    |
| <b>PROFIT/(LOSS) Before Income Tax</b>            | <b>(33,800)</b>    | <b>(38,012)</b>  | <b>(14,963)</b>  | <b>9,958</b>       | <b>9,218</b>       |
| <b>Deferred tax/ Windfall tax</b>                 | <b>(5,958)</b>     | <b>0</b>         | <b>0</b>         | <b>0</b>           | <b>(5,958)</b>     |
| <b>NET PROFIT/(LOSS)</b>                          | <b>(39,758)</b>    | <b>(38,012)</b>  | <b>(14,963)</b>  | <b>9,958</b>       | <b>3,260</b>       |

\* Budget 2024 is recommended by Board of Directors Rompetrol Rafinare



Income and expenses budget of Rompetrol Rafinare S.A. for 2024 will be subject to approval at the Ordinary General Assembly of Shareholders scheduled for April 26, 2024.

## **THE BOARD OF DIRECTORS:**

**Chairman**

***Batyrzhan Tergeussizov***

**Member**

***Adrian Tohănean***

**Member**

***Nicolae Bogdan Codruț Stănescu***

**Member**

***Bogdan-Cătălin Steriopol***

**Member**

***Tamila Mikulich***

**Member**

***Constantin Saragea***

**Member**

***Zhamilya Meshitbay***

***Executive management:***

**General Manager**

**Florian-Daniel Pop**

**Financial Manager**

**Alexandru Stăvărache**