**COMPULSORY OIL RESERVES OF THE RNM - status and challenges**

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Abstract

The supply of crude oil and oil products in the EU is a very important issue, especially for the transport sector and the chemical industry. The concentration of production, the reduction of oil reserves and the increased consumption of oil products worldwide contribute to an increased risk of supply difficulties.

The European Council in the Action Plan 2007 to 2009, within the Energy Policy of Europe, emphasized the need to strengthen the security of the supply of oil reserves to the European Union, as well as to each EU member state, with the aim of oil availability in case of crises. The Energy policy of Europe imposes the need for greater compatibility of the European Community system with the system envisaged by the International Energy Agency.

In accordance with Council Directive 2006/67/EC of July 24, 2006, the obligation of EU member states to keep minimum reserves of crude oil and/or oil derivatives is imposed[[1]](#footnote-1). Oil reserves are calculated based on the average daily domestic consumption during the previous calendar year. However, reserve holding obligations under the International Energy Program Agreement of November 18, 1974 are calculated on the basis of net imports of oil and petroleum products. For that reason and as a result of other differences in the methodology, the way in which the obligations to keep compulsory reserves and emergency reserves of the EU are calculated, with the directive 2009/119/EC of the Council of September 14, 2009, it is stipulated that the Member States should pass laws, regulations or other administrative provisions by which the stocks of oil reserves until December 31, 2012, will be at a level of at least 90 days of average daily net import or 61 days of average daily consumption in the country, respectively which of the two quantities is bigger.

The Law on Compulsory Oil Reserves of the RSM regulates the obligation to ensure a high level of security of the supply of crude oil and oil derivatives through the creating, storing and maintenance of minimum stocks of crude oil and/or oil derivatives in the form of compulsory oil reserves. the manner and conditions of creation, storage and maintainance of the compulsory oil reserves, introducing the necessary procedures for intervention in order to deal with a severe shortages of oil derivatives in the market and other issues of importance for the compulsory reserves. This Law began to be applied from 01.01.2021 and it partially transposes the Directive 2009/119/EU, compulsory reserves should be formed gradually in order to ensure the total compulsory reserves kept at all times in the Republic of N. Macedonia to correspond to at least 90 days of daily average net imports or 61 days of average daily domestic consumption, in the previous calendar year, depending on which of the two stated quantities is bigger.

The formation of compulsory reserves of oil and oil derivatives is a process of procurement of crude oil and/or oil derivatives and their storage in storage facilities, thus providing conditions for intervention supply to the market with oil derivatives in case of disruption of the energy security of the state caused by large-scale supply disruptions. The central body for keeping oil reserves is the RSM is Compulsory Oil Reserves Agency, which is authorized to establish, maintenance, storage and selling of the compulsory oil reserves. Storage and maintenance of the oil reserves is the responsibility of the trading companies – warehouses keepers, which in their tank capacities should store, keep and replenish crude oil and/or oil derivatives from the compulsory reserves.

*Key words: compulsory oil reserves, average daily domestic consumption of oil and oil products, net imports of oil and oil products, action plan for the establishment of compulsory reserves, disruption in the supply of oil derivatives.*

**INTRODUCTION**

Availability of oil reserves and security of energy supply are important elements of security for OECD and EU member countries. The Agreement on an International Energy Program Agreement (IEP) was signed in 1974 by several OECD member countries in order to ensure a stable supply of oil in the face of an oil crisis. The IEP envisaged the creation of the International Energy Agency (IEA), an autonomous body operating within the OECD. The IEA sets its own priorities and has independent decision-making structures. In addition to OECD membership, countries wishing to join the IEA as a prerequisite should also maintain substantial oil reserves (90 days of net imports) and be prepared to respond to any major risk of undersupply through oil loans and jointly built measures to deal with the situation in terms of increased demand for oil and oil derivatives. Strategic decisions in the IEA are made by the Management Board, usually by consensus, but majority voting is also possible. The IEA's voting system is primarily based on net oil imports in 1973 and has never been replaced by another calculation method. The IEA is funded primarily by its member states on the basis of their economic power, but also relies on additional inflows of funds from individual member states, as well as funds raised through publications and statistics. The rapid response program to oil shortage emergency constitutes the bulk of the IEP. The IEA deals with risks to the oil supply through the Coordinated Emergency Response Mechanism (CERM), which was introduced in 1984. CERM has been successfully implemented in three cases in the past. The IEA also focuses on other issues, such as: global energy dialogue, encouraging technological development in the energy field, developing closer ties between member governments and finding effective solutions for energy efficiency, combating climate change and dealing with supply risks in various energy sectors.

Cooperation between the IEA and the EU is deepening, given that the two organizations share many common goals, as well as the fact that 20 of the 29 IEA member countries are also EU member states. The IEA is increasingly active in market monitoring of major energy sources for trading (oil, gas, coal and renewables) and regularly advises on policy making and guidance to national governments and at international forums including the G8, G20 and The United Nations Framework Convention on Climate Change. The IEA cooperates closely in the dialogue between producers and consumers, but also among other international bodies in the field of energy, such as the International Renewable Energy Agency and the International Energy Forum. The IEA also works closely with the European Commission and other EU institutions in various areas, including the introduction of new technologies.[[2]](#footnote-2)

Macedonia implements EU directives in the field of compulsory oil reserves in the Law on Mandatory Oil Reserves, but also in the by-laws. The Agency for Compulsory Oil Reserves was established in accordance with the law and is responsible for the establishment, maintenance, storage and sale of the compulsory oil reserves of the RSM.

**Obligation of EU member states to keep minimum reserves of crude oil and/or oil products**

The concentration of oil production, the reduction of oil reserves and the increased consumption of oil products worldwide contribute to an increased risk of supply difficulties. The supply of crude oil and oil products in the EU is a very important issue, especially for the transport sector and the chemical industry. [[3]](#footnote-3)

In the Action Plan 2007 to 2009, within the "Energy Policy of Europe", the European Council emphasized the need to strengthen the security of the supply of oil derivatives within the European Union, as well as for each EU member state separately, with the aim of availability of oil and oil derivatives in case of crises.

With the Energy Policy of Europe, a greater convergence has been made between the EU system and the system envisaged by the International Energy Agency.

Within the EU member states there are central authorities (CSE) for the management of oil reserves and oil derivatives. In order to allow the Member States to make optimal use of national law to determine the terms of their CSEs, while alleviating the financial burden on end-users arising as a consequence of such stock-holding activities, it is prohibited the use of petroleum reserves for business purposes and it is allowed the reserves to be held in any location in the Community and in any CSE established for that purpose.

EU Member States should ensure the full availability of all oil reserves held in accordance with Community legislation. In order to enable Member States to react quickly in cases of emergency or local crises, they are allowed to use part of their reserves to deal with crisis situations. Emergencies of this type or local crises do not include situations caused by changes in the prices of crude oil or petroleum products, but may include interruptions in the supply of natural gas that would require a change of fuel, that is, the use of crude oil or petroleum products as a fuel for energy production. Reserves that are held in accordance with bilateral agreements or contractual rights to purchase certain quantities of reserves (receipts) should be in compliance with the European Directives.

In order to strengthen the security of supply in the Community, the reserves known as "special reserves", purchased by the Member States or by the CSE and created on the basis of decisions taken by the Member States should correspond to the real needs in cases of crisis. CSEs should have a special legal status to ensure full availability of oil reserves if such a crisis occur. For this purpose, the EU member states should take appropriate measures for the unconditional protection of those reserves.

When emergency reserves and special reserves are mixed with other reserves of economic operators, the amount of reserves intended for emergency situations should be transparently highlighted.

Biofuels and certain additives are often mixed with petroleum products. When they are mixed with petroleum products, it should be possible to distinguish them when calculating petroleum reserves.

A key factor for an efficient response in cases of difficulties in the supply of petroleum products is the appropriate and timely execution of the decisions stipulated in the IEA Agreement. EU member states should put into circulation a part of their emergency reserves to the extent provided by the IEA Decision. The European Commission has close cooperation with the IEA and bases its activities according to the IEA methodology. The European Commission proposes the release of reserves from all member states. In response to an interruption in the uninterrupted supply of oil reserves, Member States are required to respond positively to the Commission's recommendations in the interest of solidarity and unity at Community level (between those Member States that are members of the IEA and those that are not members).

Council Directive 73/238/EEC of July 24, 1973 prescribes measures aimed at easing difficulties in the supply of crude oil and oil products. This directive aims to reduce the negative effects of any temporary or permanent difficulties, which result in a significant reduction in the supply of crude oil or petroleum products including serious disruption of the economic activity of the Community. The purpose of this directive is to maintain a high level of security in the supply of oil and petroleum products in the Community through reliable and transparent mechanisms based on solidarity among EU member states.

Table No. 1 Coverage with compulsory oil reserves expressed in days in EU member states and candidate countries, 31.12.2023

|  |  |
| --- | --- |
| State | Coverage in days |
| Belgium | 106 |
| Bulgaria | 82 |
| Czechia | 92 |
| Denmark | 72 |
| Germany | 94 |
| Estonia | 81 |
| Ireland | 86 |
| Greece | 97 |
| Spain | 91 |
| France | 92 |
| Croatia | 92 |
| Italy | 90 |
| Cyprus | 91 |
| Latvia | 80 |
| Lithuania | 93 |
| Luxembourg | 93 |
| Hungary | 90 |
| Malta | 87 |
| Netherlands | 113 |
| Austria | 91 |
| Poland | 100 |
| Portugal | 90 |
| Romania | 95 |
| Slovenia | 95 |
| Slovakia | 97 |
| Finland | 184 |
| Sweden | 112 |
| Macedonia | 51 |
| Albania | 0 |
| Serbia | 42 |
| Türkiye | 0 |

*Source: Eurostat (https://ec.europa.eu/eurostat/databrowser)*

Chart No. 1 Coverage with compulsory oil reserves in days in EU member states and candidates, 31.12.2023

*Source: Eurostat (https://ec.europa.eu/eurostat/databrowser)*

From table no. 1 and graph no. 1 can be concluded that Finland has provided the highest coverage with reserves of oil and oil derivatives (184 days), followed by the Netherlands (113 days), Sweden (112 days) and Belgium (106 days) of reserve coverage.

Table No. 2 Minimum necessary oil reserves for compliance with the EU regulation, 31.12.2023

|  |  |
| --- | --- |
| State | Stock minimum in thousands of tons |
| Belgium | 3,307 |
| Bulgaria | 1,186 |
| Czechia | 2,065 |
| Denmark | 1,166 |
| Germany | 20,266 |
| Estonia | 209 |
| Ireland | 1,792 |
| Greece | 2,933 |
| Spain | 12,071 |
| France | 16,158 |
| Croatia | 702 |
| Italy | 10,549 |
| Cyprus | 570 |
| Latvia | 390 |
| Lithuania | 560 |
| Luxembourg | 613 |
| Hungary | 1,399 |
| Malta | 88 |
| Netherlands | 2,593 |
| Austria | 2,519 |
| Poland | 6,659 |
| Portugal | 2,381 |
| Romania | 1,826 |
| Slovenia | 621 |
| Slovakia | 706 |
| Finland | 1,628 |
| Sweden | 1,886 |
| Macedonia | 310 |
| Albania | 0 |
| Serbia | 676 |
| Türkiye | 0 |

*Source: Eurostat (https://ec.europa.eu/eurostat/databrowser)*

According to the data from table no. 2, it is necessary for Macedonia to acquire another 310.000 tons of oil derivatives in order to achieve full compliance with the EU directives concerning coverage of oil derivatives from the compulsory reserves.

**Compulsory oil reserves in Macedonia**

Compulsory oil reserves in Macedonia are established and kept in order to ensure uninterrupted supply to the market of crude oil and/or oil derivatives in the event of impaired energy security caused by an extraordinary disruption and a significant and sudden drop in the supply of crude oil and oil derivatives. The extraordinary disruption of supply can be caused by disruption of the regional market of crude oil and oil derivatives and/or by reasons and conditions whose occurrence cannot be influenced, and occurred on the territory of the RSM and/or in the countries through which imports crude oil and oil derivatives for the needs of the market in the RSM. Compulsory reserves are used in the event of disruption and disturbance in the supply of oil derivatives that may be caused on the market in the RSM. Compulsory reserves are also used for the purpose of fulfilling the international obligations of the RSM[[4]](#footnote-4).

Compulsory reserves are formed gradually in accordance with an action plan for the formation of compulsory reserves, in order to ensure that the total compulsory reserves held at any time in the RSM correspond to at least 90 days of daily average net imports or 61 days of average daily domestic consumption in the previous calendar year, depending on which of the two specified amounts is greater. Average daily net imports and average daily domestic consumption for the current calendar year are calculated based on the crude oil equivalent of imports and domestic consumption during the previous calendar year.

The Compulsory Oil Reserves Agency is the authorized institution for the establishment, maintenance, storage and selling of compulsory reserves of the RSM. The Agency is standalone, independent and non-profit legal entity that performs public interest affaires and is the central body for storing the compulsory oil reserves.

**Table 3:** Average daily net imports and average daily internal consumption[[5]](#footnote-5)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2022 | | 2023 | | 2024 | | 2025 | |
|  | (kton) | (ktoe) | (kton) | (ktoe) | (kton) | (ktoe) | (kton) | (ktoe) |
| daily net import | **2,7** | 2,9 | **2,7** | 2,9 | **2,8** | 2,9 | **2,8** | 3,0 |
| daily consumption | **2,2** | 2,7 | **2,3** | 2,7 | **2,3** | 2,7 | **2,3** | 2,8 |

According to the data from table 3, in Macedonia the daily net imports of oil derivatives are greater than the daily internal consumption, and based on Article 5 of the Low on compulsory oil reserves, it is determined that the level of compulsory oil reserves in the Macedonia will be calculated based on the daily net imports of oil derivatives, that is, the level of oil reserves will amount to at least 90 days of daily net imports of oil derivatives in the previous calendar year.

The Action plan for the establishment of compulsory reserves provides a framework regulation of the dynamics of the formation of compulsory reserves expressed in days of crude oil and/or oil derivatives coverage, the dynamics and the manner of replenishment of the compulsory reserves, arrangement of the storage and territorial distribution of the compulsory reserves, as well as the need and the methods of the investments towards the renewal of the existing and the construction of new storage capacities. The action plan for the period 2023-2025 is in force, according to which the expected days of coverage on 31.12.2025 should amount to 76 days of the average daily net import in 2022, and the quantities of oil derivatives that remain to be procured, in order to fill the anticipated 90 days, are expected to be purchased in tickets during 2025[[6]](#footnote-6).

Compulsory reserves are composed of those oil derivatives whose common share in the total domestic consumption in the previous calendar year is at least 75%. The share of oil derivatives in the total amount of compulsory reserves is determined based on the individual shares in the total domestic consumption in the previous calendar year.

Compulsory reserves that are kept in the form of finished products are composed of one or more types of oil derivatives classified in the following categories:

- light distillates or light oil derivatives (liquid petroleum gases LPG-butane, propane and a mixture of butane and propane, all types of motor gasoline and aviation gasoline),

- middle distillates or middle oil derivatives (all types of diesels for cars, gas oil or Extra Light 1 (EL-1) and kerosene) and

- heavy distillates or heavy oil derivatives (all types of fuel oil) and others (bitumen and petroleum coke).

Motor biofuels, as well as additives, are taken into account when calculating the actual quantities of the compulsory reserves that are kept if they are mixed in the specific oil derivatives according to the technical specifications. Compulsory Oil Reserves Agency in order to fulfill the obligation to establish compulsory reserves, can conclude tickets with which third parties commit themselves for a certain price to reserve certain quantities of crude oil and/or oil derivatives according to predetermined criteria in a certain period of time. The Agency has not concluded contracts for tickets in the entire period from its establishment until today.

Chart No. 2 Structure of the consumption of oil derivatives in the period 2020-2022

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

According to the data from Chart No. 2, the structure of the compulsory oil reserves of Macedonia consists of four types of oil derivatives whose common share in the total domestic consumption is at least 75%, namely: Motor gasoline Eurosuper BS - 95, Diesel Eurodiesel BS (D- E-V), EL-1 Extra Light oil and Fuel oil M-1 NS.

The share of each individual oil derivative that is kept in the compulsory reserves is determined based on the individual shares of each oil derivative in the total domestic consumption in the previous calendar year. Table 4 shows the percentage share of each oil derivative in the compulsory oil reserves of Macedonia.

**Table 4:** Structure of oil derivatives in compulsory reserves (in %)

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of oil derivative** | **Quantity** | **Participation** |  |
| Motor gasoline | 32.132.281 liters | 18% |  |
| Diesel | 115.889.077 liters | 64% |  |
| ЕL-1 | 10.772.019 liters | 6% |  |
| Fuel oil | 21.576.589 kilograms | 12% |  |
| **Total** |  | **100%** |  |

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

As can be seen from the table above, diesel has the largest consumption of oil derivatives in Macedonia with share of 64%, followed by gasoline with a share of 18%, fuel oil with 12% and extra light oil EL-1 with a share of of 6%.

**Table 5:** Predicted level of compulsory reserves on 31.12.2025 (in kton)

|  |  |
| --- | --- |
| **Type of oil derivative** | **Predicted/expected level of reserves on 12/31/2025** |
| Motor gasoline | 24,2 |
| Diesel | 125,9 |
| ЕL-1 | 14,1 |
| Fuel oil | 21,5 |
| **Total** | **185,7** |

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

Table No. 5 shows the predicted level of reserves by individual oil derivatives in ktons. As can be ascertained from the table itself, the largest amounts of the compulsory oil reserves are expected to be procured for diesel, because this derivative has the highest consumption in Macedonia.

**Table 6:** Level of compulsory reserves for the period 2023-2025 (in kton)

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of oil derivative** | **Realized** | **Anticipated/expected to** | |
| **Reserve level in 2022** | **Planned for procurement in the period 2023-2025** | **Reserve level in 2025** |
| Motor gasoline | 24,2 | 0 | 24,2 |
| Diesel | 97,9 | 28 | 125,9 |
| ЕL-1 | 9,1 | 5 | 14,1 |
| Fuel oil | 21,5 | 0 | 21,5 |
| **Total** | 152,7 | 33 | 185,7 |

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

Table no. 6 shows the level of reserves by separate oil reserves and in total on 31.12.2022, the anticipated purchases in 2023, 2024 and 2025 and the level of reserves on 31.12.2025. From the table, it can be seen that in the period 2023-2025, the purchase of diesel is only expected in quantities of 28 ktons for the three years in total.

**Table 7:** Days of coverage until 31.12.2022, number of days for which oil reserves are provided

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of oil derivative** | **Reserve level (kton)** | **Reserve level (ктоe)** | **Daily net import**  **(ктое)** | **Days of coverage** |
| TNG | 0 | 0 | 0,1 | 0 |
| Motor gasoline | 24,2 | 25,7 | 0,2 | 100 |
| Jet fuels | 0 | 0 | 0,4 | 0 |
| Diesel | 97,9 | 104,2 | 1,8 | 55 |
| ЕL-1 | 9,1 | 9,6 | 0,9 | 78 |
| Fuel oil | 21,5 | 22,8 | 0,2 | 89 |
| Petroleum coke | 0 | 0 | 0,4 | 0 |
| Others | 0 | 0 | 0,1 | 0 |
| **Total** | **152,7** | **162,6** | **4,1** | **57** |

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

Table no. 7 shows the quantities of oil reserves by individual derivatives, as well as the days of coverage on 31.12.2022. Motor gasoline has the highest coverage of 100 days, followed by fuel oil with 89 days, extra light 78 and diesel which has the least days of coverage, i.e. 55 days.

In the reports of the European Commission for 2019, 2020, 2021, 2022 and 2023 from the screening process - Cluster 4 Green Agenda and Sustainability - Chapter 15 Energy, it is stated that the coverage of oil derivatives from the compulsory reserves in days is as follows: in 2019 coverage of 63 days from the average daily consumption, 2020 coverage of 74 days, 2021 coverage of 51 days, 2022 coverage of 54 days and 2023 coverage of 53 days from the average daily consumption of oil derivatives. It should be noted that in 2021 the new Law on Compulsory Reserves entered into force, which in accordance with EU directives in this area changed the way of calculating of coverage days. Due to the changed method of calculation, 2021 has shown fewer days of coverage with oil derivatives compared to the previous year 2020. The days of coverage in 2023 amount to 53 days and are one day less than in 2022, which is the result of the input elements in the calculation, i.e. the increased import of certain oil derivatives during 2023.

The Compulsory Reserves Agency can also keep reserves of oil derivatives in the form of specific reserves that are an integral part of the compulsory reserves and they are kept in order to enable appropriate intervention by releasing oil derivatives. This is necessary for the initial response in cases of special urgency or to overcome local crises that are not caused by changes in the prices of crude oil or oil derivatives and may also refer to interruptions in the supply of natural gas.

Specific reserves may be composed of one or more types of oil derivatives, namely: Ethane, LPG, Motor gasoline, Aviation gasoline, Gasoline jet fuel (naphtha- type jet fuel or JP4), Kerosene-type jet fuel type, other kerosene, Gas oils / diesel oil (Extra light oil 1 (EL-1) and diesel), Fuel oil (with high sulfur content and with low sulfur content), Mineral turpentine ("White spirit") and SBP, Lubricating Oils, Bitumen, Paraffin Waxes and Petroleum Coke. In the entire period from the adoption of the legal regulation for the establishment of compulsory reserves, no specific reserves have been established in the country due to the fact that the compulsory state reserves of oil derivatives have not yet been established in accordance with the Law on Compulsory Oil Reserves and EU directives.

The funds intended to cover the costs of establishing, storing and maintaining mandatory reserves as well as for the daily operation of the Compulsory Reserves Agency are provided by: the fee for compulsory reserves of crude oil and/or oil derivatives; funds obtained on the basis of international cooperation of programs and projects; loans and other sources. The persons who are under the obligation for payment of the fee for compulsory reserves are: producers of oil derivatives and importers of oil derivatives.

**Table 8:** Total planned funds for the implementation of the action plan in the period 2023-2025 (in millions of euros per year)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2023** | **2024** | **2025** | Total |
| For the purchase of oil derivatives | 14,186 | 14,201 | 14,201 | 42,588 |
| For storage анд maintenance | 5,812 | 6,202 | 6,593 | 18,607 |
| For current operation of MAKORA | 0,5 | 0,5 | 0,5 | 1,5 |
| Total | 20,498 | 20,903 | 21,294 | 62,695 |

*Source: Action plan for the establishment of compulsory reserves* *2023-2025, Official Gazette of the Republic of North Macedonia no. 33/23*

If compared the approved funds in the budget of the Compulsory Oil Reserves Agency with the planned funds in the Action Plan 2023-2025, it can be concluded that less funds have been approved than planned. The provided funds in the budget of the Agency for filling the compulsory oil reserves is as follows: 19,986 million euros in 2023 or 512.000 euros less than the planned funds in the action plan, 13,259 million euros in 2024 or 20.890 euros less than the planned funds. The planned purchases of certain quantities of derivatives for the compulsory reserves in the action plan have not been fully realized due to the fact that the planned funds have not been secured according to the action plan in 2023 and 2024. Moreover, have to be taken into consideration the growth in the prices of oil derivatives in the period from the adoption of the action plan until today, which indicates the fact that more funds are needed than originally planned for the procurement foreseen in the action plan 2023-2025. Of course, the necessary funds for the purchase of tickets, which according to the action plan should cover a period of 14 days, should also be taken into account.

**CONCLUSION**

Compulsory oil reserves are established and maintenance in order to ensure uninterrupted supply to the market of crude oil and/or oil derivatives in the event of disturbed energy security caused by a major disruption and a significant and sudden drop in the supply of crude oil and oil derivatives to the market.

Global Strategic Petroleum Reserves (GSPR) refers to crude oil held by a country's government, as well as private industry, to protect the economy and help maintain national security during an energy crisis. Strategic reserves are intended to be used to cover short-term supply disruptions.

In 2004, about 4.1 billion barrels (650,000,000 m3) of oil constituted the strategic reserves of the member countries of the International Energy Agency, of which 1.4 billion were controlled by national governments and the rest by the private sector. The strategic oil reserves of the United States are consistently the largest compared to other member countries of the International Energy Agency.

EU member countries are obliged to maintain compulsory oil reserves at the level of 90 days of daily average net imports or 61 days of average daily domestic consumption, in the previous calendar year, depending on which of the two specified quantities is greater. Compulsory oil reserves can be used in the event of a supply disruption to the market. According to the available Eurostat data, oil constitutes 37% of the EU's energy mix in 2022. Although the transition to alternative energy sources is underway, EU countries are still dependent on the import of crude oil and oil derivatives. It is therefore essential to maintain certain quantities of stocks of oil derivatives to be used in the event of interruptions in the supply of oil. Member countries analyze the risks of oil supply interruptions and introduce crisis management procedures to be able to react in the event of an oil crisis. During a supply crisis, the European Commission is responsible for organizing consultation between EU countries. The EU is also in coordination with the oil reserves system of the International Energy Agency.

Compulsory oil reserves in Macedonia are kept according to a law that is in line with the EU directives that regulate this area. The days of coverage with oil products in 2023 amount to 53 days, which means that in order to achieve a coverage of 90 days of the average daily net import as foreseen in the 2023-2024 action plan, it is necessary to procure oil derivatives in quantities that would cover another 37 days, that is, about 70% of the existing reserves available to the state. It should be taken into account the fact that the currently available compulsory oil reserves have been procured in the period from the establishment of the Compulsory Oil Reserves Agency until today, i.e. in a period of 14 years. In order to complete compulsory reserves at the dynamics at which they have been procured so far, a period of about 7 years will be required.

According to the Law on Compulsory Oil Reserves, it is foreseen that the Macedonian government will form the compulsory oil reserves by December 31, 2022 at the latest. This means that the legal deadline for the formation of reserves has already passed and it is necessary to complete them in the shortest possible time. It is necessary to make efforts to ensure sufficient funds for the completion of compulsory oil reserves in one of the ways indicated in the law. The compulsory reserves could be complete: by increasing the fee for compulsory reserves of crude oil and/or oil derivatives which is paid when importing oil derivatives, with funds obtained on the basis of international cooperation of programs and projects, credits and other sources.

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