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**ACTION PLAN FOR IMPLEMENTATION OF DIRECTIVE
IMPOSING OBLIGATION ON MEMBER STATES TO
MAINTAIN MINIMUM STOCKS OF CRUDE OIL
AND/OR OIL PRODUCTS**

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1. Introduction – Importance of mandatory oil stocks and the existing national legislation

Council Directive 2009/119/EC of 14 September 2009 imposed an obligation on Member States to maintain stocks of crude oil and/or oil products.

Mandatory stocks of oil and oil products are stocks which are used for security of oil and oil products supply in the event of threat to energy security of the country because of extraordinary circumstances.

In Decision of the Council No. 2008/03, the Energy Community imposed an obligation on members of the Energy Community to implement EU provisions which are also related to the issue of oil and/or oil products, while Article 1 of Decision of the Council of the European Community 2012/03 proclaims that each Contracting Party to the Energy Community shall implement Council Directive **2009/119/EC not later than 1 January 2023.**

According to provisions of Directive, member states need to have oil stocks that correspond to **90 days of average daily net import or 61 days of average daily inland consumption, whichever of the two quantities is greater.**

Since Montenegro is in the EU pre-accession phase and a signatory to the Treaty establishing the Energy Community, it needs to implement this Directive.

According to the assessment of the EC presented in the Report, Montenegro is not yet ready to open negotiations in the Energy chapter. The benchmark for opening negotiations in this chapter is: **Presentation of a detailed Action Plan for alignment of the national legislation with the *acquis* related to mandatory 90-day stocks of oil and/or oil products, establishment of a central body for mandatory oil stocks and increase of the storage capacity.**

Mandatory oil stocks are generally considered a pure expense of the country and its citizens, but, on the other hand, they represent security and safeguard in case of emergency and market disturbances, thus ensuring a high level of security of energy supply of a country.

At this moment, the existing national legislation which deals with this area in Montenegro boils down to the Energy Law (Official Gazette of Montenegro 28/2010) which addresses this area in Article 174 laying down the following:

“(1) In order to ensure security of supply, energy undertakings supplying customers with oil and oil products and customers for oil products that are not supplied by those energy undertakings, shall ensure strategic reserves of oil and oil products in the total quantity that is equal to 90 days of average consumption in a previous year in Montenegro.

(2) Strategic reserves of oil and oil products from the paragraph (1) of this article, shall be ensured by legal persons that sold to their customers at least 25 tones of crude oil

or oil products in a previous year, and by new market participants, whose obligation is calculated on the basis of estimate of sale in the first year of business operation, which shall be at least 50 tones of crude oil or oil products.

(3) Management of strategic reserves is a public service which shall be carried out by a legal person established by the Government pursuant to this Law, and oil and oil products are property of persons from the paragraphs (1) and (2) of this article.

(4) Persons from paragraphs (1) and (2) of this article shall pay a charge for establishing, maintenance, and management of strategic reserves in accordance with the Government's regulation.

(5) Strategic reserves of oil and oil products from the paragraph (1) of this article may be stored in storage capacities in Montenegro and in other countries.

(6) The Government shall specify:

1) deadlines and conditions for beginning and timeline for establishing of strategic reserves of oil and oil products, and a corresponding methodology governing setting of a maximum retail sale price for products;

2) deadlines and conditions including financial ones relating to management and maintenance of the strategic reserves in line with international commitments from ratified international agreements;

3) deadlines and conditions for storage including requirements and conditions relating to location of storage capacities;

4) deadlines and conditions for quality checks and replenishing of reserves;

5) compensation and a method of payment of compensation for establishment, storage and management of the strategic reserves.

(7) Importers and exporters of oil and oil products shall declare to the Ministry each import and export of oil products.

(8) The procedure in which import and export of oil and oil products is to be declared, as well as a form of data, deadlines and other requirements shall be specified by the Ministry in a regulation."

Since the new Energy Law is currently being prepared, the original intention was to regulate this area with amendments to the Article quoted above. Considering that the Energy Law deals with many areas and that a greater number of additional articles would be needed to regulate this issue in a high-quality manner, a decision has been made to abandon that and to instead regulate this area with a new law that would address only strategic stocks of oil and oil products.

Decree on the manner of setting the maximum retail price of oil products (Official Gazette of Montenegro 73/2010) at this moment does not provide for collection of compensation for mandatory oil stocks.

With the newly adopted Energy Development Strategy by 2030, this area has been addressed separately and the following timetable of activities has been foreseen:

1. *Setting up of a Central Stockholding Entity (CSE) which will manage and check whether stocks of oil products are properly ensured and which will participate in the next steps of setting up activities to ensure stocks of oil products (estimated optimal time: 2-3 months).*
2. *Drafting of a detailed plan for ensuring stocks of oil products of the country (estimated time 3-5 months).*
3. *Drafting of a Decree on the basis of the plan under item 2 which will contain all relevant details so as to avoid disputes and unlawful actions by the market participants (estimated time 3-5 months)*
4. *Announcement of the CSE on date of entry into force and the procedures that the market participants are to follow in respect of their obligation related to the activities on ensuring mandatory stocks of oil products (estimated time 3 months after the promulgation of the Decree).*

It is believed that the Strategy itself failed to provide a clear direction for implementation of this area, nor did it provide for a detailed action plan of future activities; therefore, this document will serve as a basis for further development of this area in Montenegro and provide main instructions to be followed when drafting future legal and institutional solutions so as to achieve strategic oil stocks.

2. Overview of oil and oil products market in Montenegro

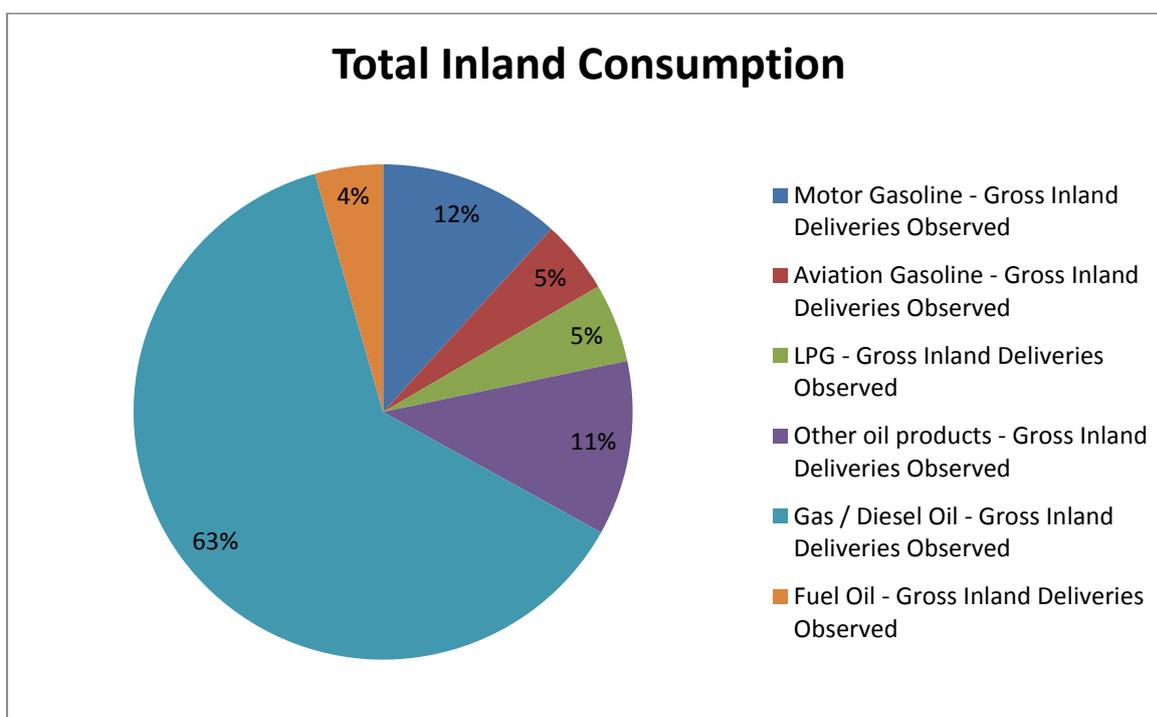
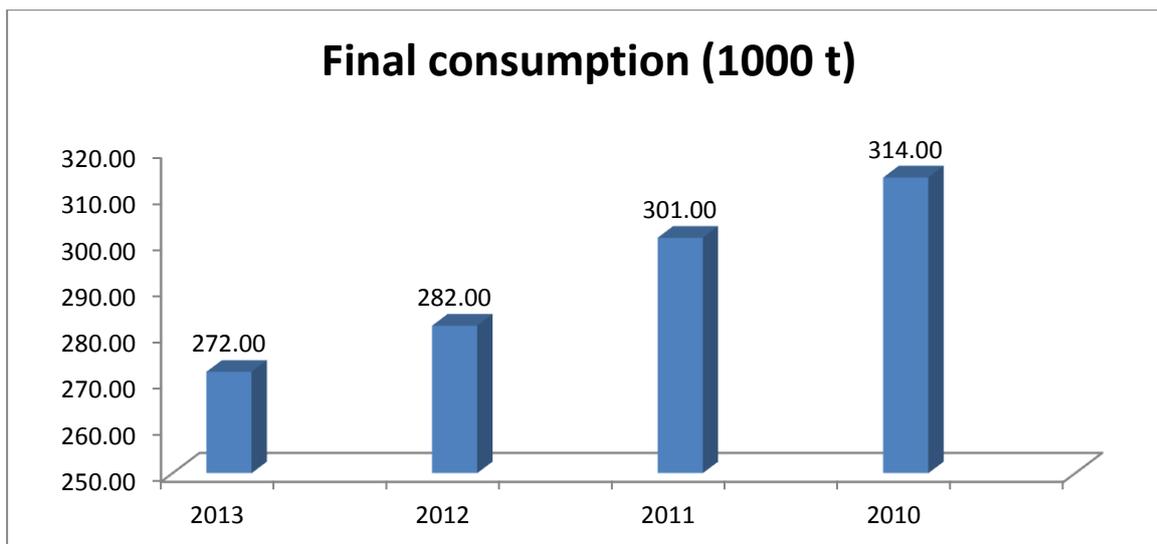
In the oil and gas market in Montenegro, where oil products and liquefied gas (LPG) are only imported, the main energy companies are the following:

- i. **Jugopetrol Kotor JSC** – joint stock company for exploration, exploitation and sale of oil and oil products. After the privatization carried out in 2002, the Greek company Hellenic Petroleum International AG became the owner of 54.5% of the Company's stocks.
- ii. **Montenegro Bonus Cetinje LLC** – a state-owned company dealing with oil products wholesale, trade and supply in electric energy. In addition, Montenegro Bonus LLC was nominated as gas transmission system operator, and the Government of Montenegro put it in charge of development of a the part of the IAP pipeline through Montenegro.
- iii. **Petrol CG MNE, INA Crna Gora and a large number of other companies** licensed for import and distribution of oil products in Montenegro (around 60).

The main characteristic of the oil products market in Montenegro is the dominant impact of Jugopetrol Kotor (Hellenic Petroleum) compared to other economic operators dealing with sale of oil products. According to the data received form the Energy Regulatory Agency, Jugopetrol share in total oil products market in 2013 was more than 60%, comparing with the other suppliers.

The oil balance is given in the following table, according to the data given by the official statistical office of Montenegro (MONSTAT):

Balance of oil products for Montenegro, 2013	Total of oil products	Refinery gas	LPG	Motor gasoline	Kerosene - aviation fuel	Naphta	Transport diesel and residual fuel oil	Mazut	Other oil products
	1+...+8	1	2	3	4	5	6	7	8
	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t
Primary production									
Recovered products									
Imports	286		14	45	13		171	12	31
Stock change									
Exports	- 14			- 13			- 1		
Bunkers									
Gross inland consumption	272		14	32	13		170	12	31
Transformation input									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Transformation output									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Exchanges and transfers, returns									
Interproduct transfers									
Products transferred									
Returns from petrochem. industry									
Consumption of the energy branch									
Distribution losses									
Available for final consumption	272		14	32	13		170	12	31
Final non-energy consumption									
Chemical industry									
Other sectors									
Final energy consumption	272		14	32	13		170	12	31
Industry	68		13				29	9	23
Iron & steel industry	15		2				10	3	
Non-ferrous metal industry	17								19
Chemical industry	5						5		
Glass, pottery & building mat. industry	5						4	1	
Ore-extraction industry	5						5		
Food, drink & tobacco industry	1		1						
Textile, leather & clothing industry									
Paper and printing									
Engineering & other metal industry									2
Other industries	20		10				5	5	2
Transport	192			31	13		134	3	5
Railways	1						1		2
Road transport	170			31			129		2
Air transport	14				13		1		
Inland navigation	6						3	3	
Other transport	1								1
Households, commerce, pub. auth. etc.	12		1	1			7		3
Households	1						1		
Agriculture	7			1			5		1
Other sectors	4		1				1		2
Statistical difference									



The previous charts give an overview of the consumption of oil products in Montenegro in the last four years. Since Montenegro does not produce oil products, this consumption can also be considered as net import.

If we take the consumption in the year 2013 of 272.000t, as reference amount, estimation made according to the calculation model given by IEA, leads us to the amount of 71.000t as an obligation for the year 2014.¹

It is particularly important to note that the data received from the Energy Regulatory Agency differ sharply from those from energy balances prepared by MONSTAT. When

¹ The calculation is given in Annex 1

drafting this document, the official data received by the MONSTAT were taken into account. The MONSTAT oil balances for the years 2010 – 2013 are given into the Annex 2.

This leads to the conclusion that before undertaking any further activities, it will be necessary to adopt the methodology that would clearly and accurately define the net import of oil products and that would further serve for setting the level of mandatory oil stocks.

3. Overview and status of oil storage facilities in Montenegro

Total storage capacity that could be used for the needs of strategic stocks and which the Montenegrin oil sector has at its disposal is around 205,000 m³. Out of the total capacity, 129,000 m³ belongs to Jugopetrol, of which 109,000 m³ is used. The storage capacities of around 55,000 m³ (54,000 m³ for oil products and 1,000 m³ for LPG), previously owned by the former Federal Directorate for Commodity Reserves, which were given to Montenegro Bonus LLC Cetinje for use have not been used for several years because of a dispute with Jugopetrol over ownership. The remaining part of storage capacities of around 21,000 m³ is owned by the State and is not in use.

The storage capacities comprise several smaller tanks and medium-sized tanks that are mostly located in Bar, Lipci and Bijelo Polje. The tanks that are in use are currently used solely for commercial purposes by the companies (operating stocks); therefore only a small part of the existing capacities is operational and most of the unused capacities need for significant investment and maintenance.

According to the current estimate of the quantity of strategic oil stocks, it is believed that a bigger part of stocks can be stored in domestic storage facilities, with certain investments needed for their restoration and adaptation. The rest can be stored in storage facilities outside Montenegro. It is necessary to draft a detailed study on the status of storage capacities and the investments needed to keep stocks in them.

The biggest risk and therefore a priority issue is certainly resolving of the dispute between the State and Jugopetrol which would define the ownership, as well as the competences over the part of the storage capacities of 55,000 m³.

The table below gives an overview of available storage facilities in the country, as well as their status and the chance of possible change of purpose for other type of products.

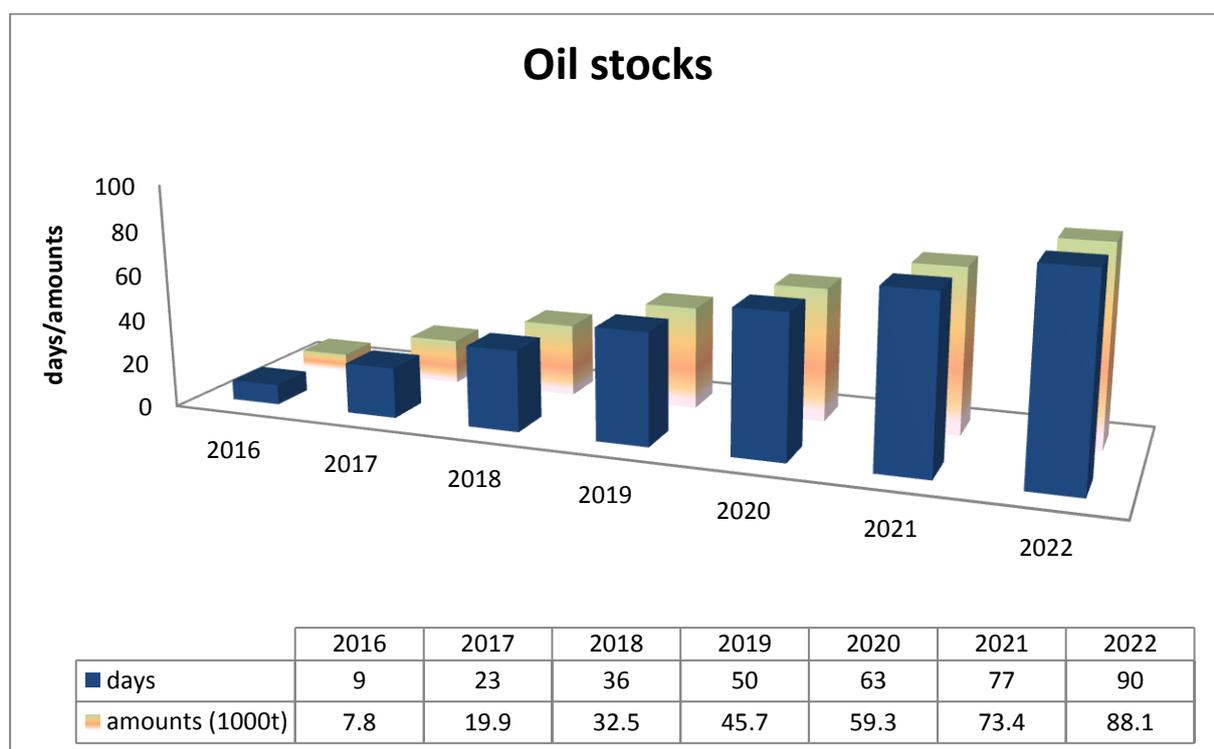
<i>Installation</i>	<i># tank</i>	<i>Type</i>	<i>volume m³</i>	<i>product</i>	<i>status</i>	<i>possible change of purpose</i>
TOTAL Bar			124,800			
Bar	R1	fixed roof + floating membrane	5,500	Unl	in use	
Bar	R2	fixed roof	5,000	Mazut	in use	
Bar	R3	fixed roof	5,000	Bitumen	out of use since 2012	
Bar	R4	fixed roof + floating membrane	4,000	Unl	in use	
Bar	R5	fixed roof + floating membrane	1,200	Unl	in use	
Bar	R6	fixed roof	1,200	Unl	out of use since 2005	Jet A1
Bar	R7	fixed roof	1,200	Unl	out of use since 2005	Jet A1
Bar	R8	fixed roof	1,200	Unl	out of use since 2005	Jet A1
Bar	R9	fixed roof + floating membrane	1,200	Unl	in use	
Bar	R10	fixed roof	2,600	D1	in use	
Bar	R11	fixed roof	1200	D1	out of use since 2004 - under dispute	
Bar	R12	fixed roof	1200	D1	out of use since 2004 - under dispute	
Bar	R13	fixed roof	650	Fuel oil	in use	
Bar	R14	fixed roof	650	Fuel oil	in use	
Bar	R15	fixed roof	15,000	D1, ULSD	in use	
Bar	R16	fixed roof	15,000	ULSD	in use	
Bar	R17	floating roof	22,000	D1	out of use since 2012	
Bar	R18	fixed roof	15,000	Mazut	out of use since	

					2008 - under dispute	
Bar	R19	fixed roof	5,000	D1, ULSD	in use	
Bar	R20	fixed roof	5,000	D1, ULSD	in use	
Bar	R21	fixed roof	5,000	D1, ULSD	in use	
Bar	R22	fixed roof	5,500	D1, ULSD	in use	
Bar	R23	fixed roof	5,500	D1, ULSD	in use	
TOTAL Bijelo Polje			26,500			
Bijelo Polje	R1	fixed roof	1,300	Unl	out of use since 2000 - under dispute	
Bijelo Polje	R2	fixed roof	1,300	Unl	out of use since 2000 - under dispute	
Bijelo Polje	R3	fixed roof	1,300	Unl	out of use since 2000 - under dispute	
Bijelo Polje	R4	fixed roof	2,600	Unl	out of use since 2000 - under dispute	
Bijelo Polje	R5	fixed roof	5,000	D2	out of use since 2000 - under dispute	
Bijelo Polje	R6	fixed roof	5,000	D2	out of use since 2000 - under dispute	
Bijelo Polje	R7	fixed roof	5,000	D2	out of use since 2000 - under dispute	
Bijelo Polje	R8	fixed roof	5,000	D2	out of use since 2000 - under dispute	
TOTAL Cerovo			21,000			
Cerovo	R1		3,000			
Cerovo	R2		3,000			
Cerovo	R3		3,000			
Cerovo	R4		3,000			

Cerovo	R5		3,000			
Cerovo	R6		3,000			
Cerovo	R7		3,000			
TOTAL Lipci			22,400			
Lipci	R1	floating roof	2,600	D2	out of use since 2004 - under dispute	
Lipci	R2	fixed roof	2,600	D2	out of use since 2004 - under dispute	
Lipci	R3	fixed roof + floating membrane	8000	D2	out of use since 2004	
Lipci	R5	underground tank fixed roof	1400	Unl	out of use since 2004	
Lipci	R6	underground tank fixed roof	1400	Unl	out of use since 2004	
Lipci	R7	underground tank fixed roof	700	Unl	out of use since 2004	
Lipci	R8	underground tank fixed roof	700	Unl	out of use since 2004	
Lipci	R9	floating roof	5,000	D2	out of use since 2004 - under dispute	
TOTAL Tivat			8,000			
Tivat	R1	floating roof	1,300	Jet A1	in use	
Tivat	R2	fixed roof	4,100	Jet A1	in use	
Tivat	R3	fixed roof	500	Jet A1	in use	
Tivat	R5	underground	100	AvGas 100LL	in use	
Tivat	R6	underground	100	AvGas 100LL	in use	
Tivat	R7	underground	100	AvGas 100LL	in use	
Tivat	R11	floating roof	1800	Jet A1	in use	
TOTAL Podgorica (Zetatrans)			2,000			
Podgorica		underground	2,000			
TOTAL			204,700			

4. Planned quantities of crude oil and oil products for stocks

Considering the deadline for fulfilment of this obligation, it is proposed that physical establishment of stocks should start in 2016, when they would be provided in quantity equal to the quantity for 9 days of net import (10% of the total quantity), so that this value would increase during the period 2017 – 2022 every year by 15% (13.5 days of net import). With this dynamics, the 90-day obligation would be fulfilled by 1st January 2023.



If we analyze the structure of oil products which are sold in Montenegro, we can see that over 80% are gasoline, diesel, fuel oil and LPG. Considering the fact that Directive allows the State itself to define the types of oil products in the structure of stocks, and taking into account the types of storage facilities located in Montenegro, it is recommended that these four types of oil products should constitute the base of mandatory oil stocks. However, this structure could be changed when necessary.

5. Introduction of strategic oil stocks – scenario for Montenegro

5.1 Risks of provision of mandatory oil stocks in Montenegro

The basic risks, with which Montenegro will face as regards provision of mandatory oil stocks, are the following:

- Absence of national legislation in this area,
- Absence of appropriate aligned methodology for calculation of the net import required for determination of quantity of crude oil and oil products stock,
- Absence of institutional solution for dealing with this area,
- Very low level of knowledge, expertise and staff in this area,
- Restrictions in available funds of the State budget and the issue of possible indebtedness,
- High participation of only one company in import and distribution of oil products and
- Vague ownership over oil storage facilities due to dispute between the State and Jugopetrol

5.2 Required preconditions for provision of mandatory oil stocks

Before the beginning of detailed elaboration of any model that will be applied in Montenegro, it is necessary to fulfill certain institutional and legal preconditions which are given below:

1. It is necessary to create institutional precondition for development of mandatory oil stocks through establishment of the Central Body for Mandatory Strategic Oil Stocks
2. It is necessary to create legal precondition for development of mandatory oil stocks and regulation of this area through adoption of the Law on Strategic Oil Stocks
3. It is necessary to establish clear and unified methodology for collection and systematization of data related to trade in oil products, which would be aligned at the level of the Ministry of Economy, MONSTAT and the Energy Regulatory Agency.
4. It is necessary to develop the mechanism for the purpose of collecting compensations for mandatory oil stocks, through amendments to the Decree on the Maximum Retail Price of Oil Products, so that this compensation could be included in the price of oil products on the market.

5. It is necessary to prepare the bylaws and methodologies required for transparent and clear work on development of stocks.

In order to meet the set deadline in 2023 and dynamics as of 2016, it is necessary to fulfill all previously mentioned activities 1 - 4 by the end of 2015, and activity number 5 in 2016.

It is necessary to start with collecting compensations for oil stocks in 2016 per every liter of sold oil product for the products the retail price of which is defined by the Decree.

5.3 Models for provision of strategic oil stocks

The analysis of various possible models, their applicability in Montenegro, as well as their impact on the retail price of oil products was carried out for the needs of development of the Action Plan. The basic results of that analysis are given below:

Industrial model

Stocks maintained by the industrial sector, for the purpose of aligning with national rules on maintenance of stocks, may fulfill the obligation of the State related to maintenance of stocks. Certain companies, such as importers, refineries, suppliers of product or wholesalers are required by the States to provide and preserve the required amount of stocks. In general, the required quantities are based on the percentage from sale, consumption or import from the previous year, and the State prescribes that quantity every year.

Application of this model in Montenegro would imply the following:

- **General measures**
 1. Every year the State should define the percentage of the last year import that the companies are obliged to import additionally. This obligation would include all importers regardless of whether they have the storage capacities.
 2. Based on defining of percentage of the additional import, the State is obliged to prescribe the additional fee by which this cost would be reimbursed to the obliged companies.
 3. The State would be obliged to supervise and control mandatory oil stocks, in order to ensure that these stocks match the prescribed content and quantity.

- **Advantages**

1. Awareness and knowledge about the industry related to market conditions, as well as real experience are required for calculation of compensations and proper use of storage capacities;
2. Fewer obligations of the State, and therefore lower costs of organisation, due to the fact that in this case the State would be obliged to perform supervision only
3. Flexibility in the use of all funds and possibilities of the complicated oil market;
4. Simple and appropriate marketing, as well as renewal of stocks when necessary, due to location and vehicles which are usually used for the supply of consumers.

- **Shortcomings**

1. In addition to import, the importers would also be obliged to store products, regardless of whether they have the storage capacities in Montenegro. Considering the fact that all available storage facilities in Montenegro are owned by Jugopetrol, all other importers (approximately 40% of the total import) would be obliged to keep oil products in storage facility owned by Jugopetrol and they would be conditioned by payment of storage fee to Jugopetrol only.
2. Since the companies would be obliged to import and pay oil products from their own funds, that cost would be directly at the expense of the retail price of oil products in Montenegro. In case this model is used, the fee which would serve as compensation would be significant, since it would include the interest of loans taken by the companies for this purpose which are much more expensive than those taken by the State for the same purpose..
3. The ownership over stocks would be under 100% control of the economy, which would be problematic particularly in case of the bankruptcy procedure. Therefore, the possibility of abuse is greater and it can directly influence the market itself.
4. The lack of transparency in transactions which are carried out by oil companies and which influence the mandatory oil stocks.
5. The lack of knowledge for these types of operations in smaller oil companies in Montenegro, particularly in the segment which would imply the lease of storage facilities from Jugopetrol.

State model

The second category of oil stocks are the State-owned stocks. This category of stocks is usually financed from the central State budget and these stocks are kept exclusively for urgent needs.

Application of this model in Montenegro would imply the following:

- **General measures**

1. Establishment of the Central Body that would have to deal with procurement, trade, storage and renewal of stocks in addition to supervision over the mandatory oil stocks
2. Defining clear methodologies related to tenders for procurement, storage, renewal and all other tasks related to maintenance of mandatory oil stocks
3. Provision of budget funds or loan arrangement that would finance the procurement and other costs related to maintenance of stocks
4. Based on defining of the annual quantities and all costs related to their procurement and maintenance, the State is obliged to prescribe the additional fee which would cover that cost.

- **Advantages**

1. Direct control over stocks and management;
2. Transparent management over the use and placement on the market;
3. Minimum possibility of influence on the oil products market
4. The possibility of financing which could be provided by the State under more favorable conditions when compared with the industry; therefore, the influence on the retail price would be significantly lower than the influence exerted under the industrial model.
5. The State would be responsible for provision of storage facilities and therefore it would prevent direct dependence of all companies on Jugopetrol in terms of storage
6. Transparency in tender procedures for procurement of oil products, storage and maintenance of stocks

- **Shortcomings**

1. Strain on the budget in terms of provision of stocks;
2. Strain on the State administration and larger costs of functioning of the Central Body, due to a larger scope of work and responsibility, therefore, a larger number of employees
3. The lack of flexibility and specific knowledge which exists in main oil companies on the market;
4. Inability of fast delivery when stocks are kept in tanks which are not used for market supply.
5. Larger costs of renewal and handling of stocks
6. Due to the current failure to resolve the dispute concerning storage facilities, the State would be restricted to storage facilities owned by Jugopetrol, which are currently the only functional and available storage facilities

5.4 Combined model as the most favorable scenario for Montenegro

In many countries, the industrial and the State model are either combined or related in order to reach the advantage of both approaches. Out of 28 EU States in 2014, 8 States apply the industrial model, 10 States apply the State model and, and 10 apply the combined model. In 2007, 20 out of 28 States (26 member States of the International Energy Agency and 2 candidate States) opted for fulfillment of all or a part of their obligations through redirecting of the stock maintenance obligation to the industrial sector. The previous period was characterized by a larger number of States that applied the industrial model, and based on the experience gained, over time, the States partially assumed greater obligation and instead of the industrial model they apply the combined one, where they assume one part of obligations, whereas the other part is left to the industrial sector, particularly because of frequent misuse of stocks by the industrial sector, as well as because of difficulties in the monitoring of stocks. Purely State models for mandatory oil stock management are applied in Croatia and Slovenia. In Slovenia, such agency is a part of the Agency for Commodity Reserves, while Croatia has an independent agency dealing only with the mandatory oil stock management.

In addition to the combined model, it is possible to include the procurement of tickets that represent the reservation of certain quantities of oil products stored in some of the EU Member States. The ticket provides the possibility of purchasing the agreed quantity of oil products by the agreed price within a certain agreed period. As far as Montenegro is concerned, trade using tickets is considered as a possible solution to a certain extent, but only in case when significant quantities, which are physically available in the State, have been previously provided.

Certainly, the determining factor for a specific model should be the influence on the current retail price and the influence of additional compensation to inflation and other prices; furthermore, the applicability of a specific model in Montenegro is also rather important.

Taking into account all the mentioned facts, the combined model is considered the most applicable and the most realistic, with the possibility of change both in property share and the storage and ticket price.

Application of this model in Montenegro

According to this scenario, Montenegro would entrust a part of its mandatory oil stocks to Jugopetrol through clearly defined contractual obligations, one part of stocks would be provided from its budget funds, whereas the other part would be provided through tickets (means of guarantee that provide reservation of certain quantities with compensation). The first two quantities of stocks would be physically located in Montenegro, whereas certain quantities on the territory of the EU Member States would be reserved by tickets.

The following charter provides the possible ratio of quantities in tones that would be owned by: Jugopetrol, and by the State and that would be provided by tickets, as well as dynamics of their procurement.

	Jugopetrol		Government		Ticket	
	share %	amount	share %	amount	share %	amount
2016	100,00	7.829				
2017	100,00	19.964				
2018	67,52	22.000	32,48	10.582		
2019	54,71	25.000	45,29	20.696		
2020	43,83	26.000	43,83	26.000	12,34	7.321
2021	39,88	29.300	38,11	28.000	22,01	16.174
2022	33,23	29.300	33,23	29.300	33,54	29.568

First quantities for the necessary stocks of oil products in 2016 and 2017 can be provided through contracting with Jugopetrol, in entire amount. Namely, considering the storing capacities which Jugopetrol has at the moment, as well as this company's past experience in the trade with oil products, as well as based on the information received from them, at any moment Jugopetrol has in its storage the commercial reserves necessary for the company's trading in home market for a period of 30 days.

In following years the contract can be made for a certain amount of reserves. For 2018 and 2019 for cca 60% of reserves and in future years percentage will fall down and in 2022 will 33% of reserves. These amounts will constitute a part of the state oil stocks.

For these amounts, it would be necessary to clearly define the compensation to Jugopetrol which would remunerate their unrealised gain, since in this case Jugopetrol could not use commercially that part of the reserves. Anyway, this compensation would be considerably lower than the finances for purchasing the stocks.

The moment when physical reserves reach more than 60% of the mandatory amount, the arrangements for purchasing tickets for the rest of the amount can start, which was planned for 2020.

According to plans, the required amount should be reached by the end of 2022 with the following ownership structure: 33,23% - Jugopetrol's share, 33,23% - state's share and the remaining 33,54% in the form of tickets.

6. Financial and economic consequences of the proposed model (combined model)

The purpose of this financial model is to calculate expected oil stock fee which will be introduced from 2016 as well as its impact on the retail price of the oil derivate in Montenegro.

Starting points used for this analysis are as follows:

- Consumption in 2014 is calculated on consumption in 2013 (according to the official data taken from MONSTAT) with the annual increase of 2%. The same formula is used for the coming period;
- Average storage price of oil products in 2014 is 22 euro/t, with the annual increase of 3%;
- The State will take refinancing loans with the average interest rate of 4% and average maturity of 10 years;
- Average retail price of oil products in 2014 is 1,10 euro/l, with annual increase of 2%;
- Compensation to Jugopetrol is 10% of the average oil price;
- Ticket price is 10% of the average oil product price;
- Operational cost of Oil Stocks Directorate is 100.000,00 euros in 2015, while it will increase to 250.000,00 in 2016 and with annual increase of 2% in later years;
- 1 ton is equal to 1.200 litres.

Since the current price of oil products of 500 euros/t, is at the historically lowest level, for purpose of this analysis two scenarios were considered:

- The average price is 500 euros/t with the annual increase of 2%
- The average price is 800 euros/t with the annual increase of 2%.

As well both scenarios are considering two possible solutions:

1. The State is taking refinancing loans and repay only the interest
2. The State is taking refinancing loans and repay interest plus capital, through the collection of the oil stock fee.

Scenario A - The average price is 500 euros/t with the annual increase of 2%

In case of repayments of only interest, the results are as follows:

The annual funds which needs to be collected through the additional fee is 657.270,00 eur for 2016 to 2.987.421,00 eur for 2022. This means that the retail price will need to be increased in 2016 for 0,19 cEur/l to 0,77cEur/l in 2022. This leads to the increase of retail price of 0,17% in 2016 to 0,59% in 2022.

In case of repayments of capital and interest, results are as follows:

The annual funds which needs to be collected through the additional fee is 657.270,00 eur for 2016 to 5.066.230,00 eur for 2022. This means that the retail price will need to be increased in 2016 for 0,19 cEur/l to 1,30cEur/l in 2022. This leads to the increase of retail price of 0,17% in 2016 to 1,01% in 2022.

The following table presents detailed explanation of the above mentioned calculations.

		2014	2015	2016	2017	2018	2019	2020	2021	2022	
Yearly consumption in tons		1,02	277440	282.989	288.649	294.422	300.310	306.316	312.443	318.691	325.065
Stock obligation in days					9	23	36	50	63	77	90
Stock obligation in tons					7.829	19.964	32.582	45.696	59.321	73.474	88.168
Product price	EUR/t	1,02	500	510	520	531	541	552	563	574	586
Storage cost (EUR/to/year)	EUR/t/year	1,03	22,0	22,7	23,3	24,0	24,8	25,5	26,3	27,1	27,9
Interest (%)	%	1	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0
ME Final price (EUR/liter)	EUR/liter	1,02	1,10	1,12	1,14	1,17	1,19	1,21	1,24	1,26	1,29
COSTS											
Compensation to Jugopetrol	EUR/year	10%	-	-	407.270	1.059.308	1.190.675	1.380.101	1.464.011	1.682.825	1.716.481
Costs state owned stocks (EUR/year)											
Storage	EUR/year		-	-			262.012	527.823	682.998	757.602	816.560
Procurement	EUR/year						5.726.919	5.583.383	2.986.774	1.148.686	761.579
Tickets (10% of price)		10%						412.247	928.921	1.732.203	
Capital sum					407.270	1.059.308	7.179.607	7.491.307	5.546.030	4.518.034	5.026.822
Financing-bank interest			-	-				287.184	586.837	808.678	989.399
Financing - capital								746.679	1.392.423	1.807.784	2.078.809
Operation-costs of Directorate		1,02	-	100.000	250.000	255.000	260.100	265.302	270.608	276.020	281.541
Total cost without CAPITAL					657.270	1.314.308	1.450.775	1.932.587	2.321.456	2.767.522	2.987.421
Total cost with CAPITAL (repayment of instalment)			-	100.000	657.270	1.314.308	1.450.775	2.679.266	3.713.879	4.575.307	5.066.230
Consumption of motorfuel (liter/year)	liter/year	1,02		339.586.560	346.378.291	353.305.857	360.371.974	367.579.414	374.931.002	382.429.622	390.078.214
Calculation of compensation without capital sum											
Fee (EURO/liter)	EURO/liter				0,0019	0,0037	0,0040	0,0053	0,0062	0,0072	0,0077
Percentage on final price	%				0,17	0,32	0,34	0,43	0,50	0,57	0,59
Calculation of compensation with capital sum											
Fee (EURO/liter)	EURO/liter				0,0019	0,0037	0,0040	0,0073	0,0099	0,0120	0,0130
Percentage on final price	%				0,17	0,32	0,34	0,60	0,80	0,95	1,01

Scenario B - The average price is 800 euros/t with the annual increase of 2%

In case of repayments of only interest, the results are as follows:

The annual funds which needs to be collected through the additional fee is 901.632,00 eur for 2016 to 4.557.418,00 eur for 2022. This means that the retail price will need to be increased in 2016 for 0,26 cEur/l to 1,17cEur/l in 2022. This leads to the increase of retail price of 0,23% in 2016 to 0,91% in 2022.

In case of repayments of capital and interest, results are as follows:

The annual funds which needs to be collected through the additional fee is 901.632,00 eur for 2016 to 7.764.113,00 eur for 2022. This means that the retail price will need to be increased in 2016 for 0,26 cEur/l to 1,99cEur/l in 2022. This leads to the increase of retail price of 0,23% in 2016 to 1,54% in 2022.

The following table presents detailed explanation of the above mentioned calculations.

		2014	2015	2016	2017	2018	2019	2020	2021	2022	
Yearly consumption in tons		1,02	277440	282.989	288.649	294.422	300.310	306.316	312.443	318.691	325.065
Stock obligation in days				9	23	36	50	63	77	90	
Stock obligation in tons				7.829	19.964	32.582	45.696	59.321	73.474	88.168	
Product price	EUR/t	1,02	800	816	832	849	866	883	901	919	937
Storage cost (EUR/to/year)	EUR/t/year	1,03	22,0	22,7	23,3	24,0	24,8	25,5	26,3	27,1	27,9
Interest (%)	%	1	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0
ME Final price (EUR/liter)	EUR/liter	1,02	1,10	1,12	1,14	1,17	1,19	1,21	1,24	1,26	1,29
COSTS											
Compensation to Jugopetrol	EUR/year	10%	-	-	651.632	1.694.894	1.905.081	2.208.162	2.342.418	2.692.519	2.746.370
Costs state owned stocks (EUR/year)											
Storage	EUR/year		-	-			262.012	527.823	682.998	757.602	816.560
Procurement	EUR/year						9.163.070	8.933.413	4.778.839	1.837.897	1.218.526
Tickets (10% of price)		10%						659.596	1.486.274	2.771.524	
Capital sum				651.632	1.694.894	11.330.163	11.669.397	8.463.850	6.774.293	7.552.979	
Financing-bank interest			-	-			453.207	919.982	1.258.536	1.529.508	
Financing - capital							1.178.337	2.182.122	2.810.295	3.206.695	
Operation-costs of Directorate		1,02	-	100.000	250.000	255.000	260.100	265.302	270.608	276.020	281.541
Total cost without CAPITAL				901.632	1.949.894	2.165.181	2.926.670	3.533.008	4.227.076	4.557.418	
Total cost with CAPITAL (repayment of instalment)			-	100.000	901.632	1.949.894	2.165.181	4.105.007	5.715.131	7.037.371	7.764.113
Consumption of motorfuel (liter/year)	liter/year	1,02		339.586.560	346.378.291	353.305.857	360.371.974	367.579.414	374.931.002	382.429.622	390.078.214
Calculation of compensation without capital sum											
Fee (EURO/liter)	EURO/liter				0,0026	0,0055	0,0060	0,0080	0,0094	0,0111	0,0117
Percentage on final price	%				0,23	0,47	0,50	0,66	0,76	0,87	0,91
Calculation of compensation with capital sum											
Fee (EURO/liter)	EURO/liter				0,0026	0,0055	0,0060	0,0112	0,0152	0,0184	0,0199
Percentage on final price	%				0,23	0,47	0,50	0,92	1,23	1,46	1,54

7. Conclusion

Certain assumptions acquired from various experts from the region, as well as certain publications dealing with this area are used in this document.

Certainly, the determining factor for a specific model should be the influence on the current retail price and the influence of additional compensation to inflation and other prices; furthermore, the applicability of a specific model in Montenegro is also rather important. For that reason, more detailed study that would provide accurate results on influence on the retail price with use of various models would start following adoption of this Action Plan.

Taking into account all the mentioned facts, the combined model is considered the most applicable and the most realistic, with the possibility of change in property share over oil products that would serve as strategic stock.

In any case, resolution of ownership dispute with Jugopetrol would change the current situation to a large extent and it would significantly influence the future costs.

8. Timeframe for implementation of the plan

Legislative and strategic framework

Measure	Deadline	Responsible institution	Financing
Amendment of the Rulebook on systematization of working posts of the Ministry of Economy	2015	Ministry of Economy	Public Budget
Law on Strategic Oil Stocks	2015	Ministry of Economy	Public Budget IPA 2011
Amendments to the Decree on the Manner of Forming Maximum Retail Prices of Oil Products	2015	Ministry of Economy Ministry of Finance	Public Budget IPA 2012
Methodology for collecting data on oil and oil products	2015	Ministry of Economy Ministry of Finance Customs Administration MONSTAT Energy Regulatory Agency	Public Budget
Preparation of the necessary secondary legislation for the implementation of the law on strategic oil reserves	2016	Ministry of Economy	Public Budget IPA 2012

Institutional and administrative framework

Measure	Deadline	Responsible institution	Financing
Forming of the Directorate for Strategic Oil Stocks - 3 employees	2015	Ministry of Economy	Public Budget
Education and trainings for the employees of the Directorate for mandatory Oil Stocks	continuously	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget IPA 2011 IPA 2012
Enlargement and strengthening of the Directorate for Strategic Oil Stocks	2016	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget IPA 2011 IPA 2012

Physical securing of strategic stocks

Measure	Deadline	Responsible institution	Financing
Detailed plan for the procurement of strategic oil stocks	2015	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget IPA 2011
Collection of compensation for the strategic oil reserves	2016 -	Ministry of Economy Directorate for Strategic Oil Stocks Ministry of Finance	Public Budget
Signing the contract with Jugopetrol for providing initial amounts of stocks	2016	Ministry of Economy Directorate for Strategic Oil Stocks Ministry of Finance	Public Budget
Signing the contract with Jugopetrol for providing additional amounts of stocks	2017-	Ministry of Economy Directorate for Strategic Oil Stocks Ministry of Finance	Public Budget
Tender for procurement of oil products	2018 -	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget
Tender for provision of storage capacities	2018 -	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget
Tender for purchasing tickets	2020 -	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget
Supervision over the provision and control of strategic oil reserves	2015 -	Ministry of Economy Directorate for Strategic Oil Stocks	Public Budget

Please note that this worksheet concerns only European Union Members States

LEVEL OF DAILY NET IMPORTS OR DAILY CONSUMPTION (ANNEX I AND II OF THE DIRECTIVE)

DETERMINE OBLIGATION BASED ON NET IMPORTS ANNEX I OF THE DIRECTIVE		Unit: Thousand Metric Tons	2013
Step 1			
Naphtha Yield			
01	Naphtha Gross Refinery Output		0
02	Naphtha Refinery Fuel		0
03	Naphtha Backflows from Petrochemical Sector to Refineries		0
04	Crude, NGL and Feedstocks Refinery Inflow (Contingent)		0
05	Naphtha Yield (01-02-03+04)		0.00
Step 2			
Naphtha actual consumption			
06	Naphtha Gross Inland Deliveries Observed		0
07	Naphtha net actual consumption (06-05)		0.00
08	Crude oil equivalent of Naphtha actual consumption (07) * 1.093		0.00
Step 3			
Crude oil component (Crude oil net imports adjusted for stock change)			
09	Crude, NGL, Feedstocks Imports		0
10	Crude, NGL, Feedstocks Exports		0
11	Crude, NGL, Feedstock Total Stocks	Closing	0
12	on national territory	Closing	0
13	Net imports of Crude, NGL, Feedstocks adjusted for stock change (09-10+12-11)		0.00
14	Crude oil net imports corrected for naphtha (13) * 0.908		0.00
Step 4			
Petroleum product component (Petroleum product net imports adjusted for stock change)			
15	Total Products Imports		286
16	Naphtha Imports		0
17	Total Products Exports		14
18	Naphtha Exports		0
19	Total Products Bunkers		0
20	Naphtha Bunkers		0
21	Total Product Stocks (Total)	Closing	0
22	on national territory	Closing	0
23	Naphtha Stocks (Total)	Closing	0
24	on national territory	Closing	0
25	Net imports of Products adjusted for stock change (15-16+17-18+19-20+22-24-21+23)		272.00
26	Crude oil equivalent of Net imports of petroleum products (25) * 1.095		289.69
Step 5			
Choose the Method to calculate the Average Daily Imports and Associated Commitment on the basis of:			
* If Naphtha Yield less than 7%, Method 1			
* If Naphtha Yield higher than 7%, Method 2 or Method 3 whichever gives minimum obligation			
METHOD 1 (4% default value for naphtha yield)			
27	Net Imports (Crude and petroleum products) (14+26)		289.69
28	Daily Net Imports (27)/ days of year		0.79
29	90 Days Commitment (28) * 90		71.13
METHOD 2 (Naphtha Actual Consumption)			
30	Net Imports (Crude and petroleum products) (15-08+26)		289.69
31	Daily Net Imports (30)/ days of year		0.79
32	90 Days Commitment (31) * 90		71.13
METHOD 3 (Actual Naphtha Yield)			
33	Net Imports (Crude and petroleum products) (13) * (1-05)+26		289.69
34	Daily Net Imports (33) / days of year		0.79
35	90 Days Commitment (34) * 90		71.13

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DETERMINE OBLIGATION BASED ON INLAND CONSUMPTION ANNEX II OF THE DIRECTIVE		Unit: Thousand Metric Tons	2013
Step 6			
Total Inland Consumption			
46	Motor Gasoline - Gross Inland Deliveries Observed		32
47	Aviation Gasoline - Gross Inland Deliveries Observed		13
48	Gasoline Type Jet Fuel - Gross Inland Deliveries Observed (LPG)		14
49	Kerosene type Jet fuel - Gross Inland Deliveries Observed		4
50	Other Kerosene - Gross Inland Deliveries Observed (other oil products)		31
51	Gas / Diesel Oil - Gross Inland Deliveries Observed		170
52	Fuel Oil - Gross Inland Deliveries Observed		15
53	Inland Consumption (46+47+48+49+50+51+52)		272.00
54	Crude oil equivalent of Inland Consumption (53) * 1.2		326.40
55	Daily Consumption (54) / days of year		0.89
56	90 Days Commitment (55) * 90		80.10

Step 7		Unit: Thousand Metric Tons	2011
Select between the "Net Imports Approach - Step 5" and the "Inland Consumption Approach - Step 6" the approach that leads to the maximum obligation; note corresponding average daily figures			
36	Minimum Stock Level for compliance		71.43
37	Daily Net Imports/Inland Consumption for compliance		0.79

LEVEL OF EMERGENCY STOCKS IN DAYS EQUIVALENT (ANNEX III OF THE DIRECTIVE)		Unit: Thousand Metric Tons	January 2013
Step 8			
STOCKS - Crude Oil Component			
38	Crude, NGL and Feedstocks Stocks		0
39	Crude Oil Stocks corrected for naphtha (38) * 0.908		0.00
Step 9			
STOCKS - Petroleum Products Component (Annex III, a))			
40	Total Products Stocks		0
41	Naphtha Stocks		0
42	Product Stocks (40-41)		0.00
43	Crude oil equivalent of Petroleum Products Stocks (42) * 1.093		0.00
Step 10			
STOCKS - Petroleum Products Component (Annex III, b))			
44	Motor Gasoline - Stocks		0
45	Aviation Gasoline - Stocks		0
46	Gasoline Type Jet Fuel - Stocks		0
47	Kerosene Type Jet Fuel - Stocks		0
48	Other Kerosene - Stocks		0
49	Gas / Diesel Oil - Stocks		0
50	Fuel Oil - Stocks		0
51	Product Stocks (47+48+49+50+51+52)		0.00
52	Crude oil equivalent of Petroleum Products Stocks (51) * 1.2		0.00
Step 11			
STOCKS - Total Emergency stocks (Annex III, a))			
43	Emergency Stocks corrected for tank bottoms - Annex III, a (39+52) * 0.9		0.00
45	Days Equivalent (43/2)		0.00
Step 12			
STOCKS - Total Emergency stocks (Annex III, b))			
46	Emergency Stocks corrected for tank bottoms - Annex III, b (42+52) * 0.9		0.00
47	Days Equivalent (46/2)		0.00

MS is not compliant to directive 2009/119EC (Method 1)

MS is not compliant to directive 2009/119EC (Method 2)

MS has chosen the following method for the reporting year:

Method () a () annex II, b)

MS is not compliant to directive 2009/119EC

EMERGENCY STOCKS IN DAYS EQUIVALENT		in Days
Choose Value in Line 45 or Line 47 according to MS selection of Annex III approach		
		0.00

Annex 2

EUROSTAT format

Balance of oil products for Montenegro, 2013	Total of oil products	Rafinery gas	LPG	Motor gasoline	Kerosene - aviation fuel	Naphta	Transport diesel and residual fuel oil	Mazut	Other oil products
	1+...+8 1000 t	1 1000 t	2 1000 t	3 1000 t	4 1000 t	5 1000 t	6 1000 t	7 1000 t	8 1000 t
Primary production									
Recovered products									
Imports	286		14	45	13		171	12	31
Stock change									
Exports	- 14			- 13			- 1		
Bunkers									
Gross inland consumption	272		14	32	13		170	12	31
Transformation input									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Transformation output									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Exchanges and transfers, returns									
Interproduct transfers									
Products transferred									
Returns from petrochem. industry									
Consumption of the energy branch									
Distribution losses									
Available for final consumption	272		14	32	13		170	12	31
Final non-energy consumption									
Chemical industry									
Other sectors									
Final energy consumption	272		14	32	13		170	12	31
Industry	68		13	32	13		29	9	23
Iron & steel industry	15		2				10	3	
Non-ferrous metal industry	17								19
Chemical industry	5						5		
Glass, pottery & building mat. industry	5						4	1	
Ore-extraction industry	5						5		
Food, drink & tobacco industry	1		1						
Textile, leather & clothing industry									
Paper and printing									
Engineering & other metal industry									2
Other industries	20		10				5	5	2
Transport	192			31	13		134	3	5
Railways	1						1		2
Road transport	170			31			129		2
Air transport	14				13		1		
Inland navigation	6						3	3	
Other transport	1								1
Households, commerce, pub. auth. etc.	12		1	1			7		3
Households	1						1		
Agriculture	7			1			5		1
Other sectors	4		1				1		2
Statistical difference									

Balance of oil products for Montenegro, 2012	Total of oil products	Refinery gas	LPG	Motor gasoline	Kerosene - aviation fuel	Naphta	Transport diesel and residual fuel oil	Mazut	Other oil products
	1+...+8 1000 t	1 1000 t	2 1000 t	3 1000 t	4 1000 t	5 1000 t	6 1000 t	7 1000 t	8 1000 t
Primary production									
Recovered products									
Imports	294		17	48	12		170	8	39
Stock change									
Exports	- 12			11				1	
Bunkers									
Gross inland consumption	282		17	37	12		170	7	39
Transformation input									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Transformation output									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Exchanges and transfers, returns									
Interproduct transfers									
Products transferred									
Returns from petrochem. industry									
Consumption of the energy branch	1							1	
Distribution losses									
Available for final consumption	281		17	37	12		170	6	39
Final non-energy consumption									
Chemical industry									
Other sectors									
Final energy consumption	281		17	37	12		170	6	39
Industry	61		17	37	12		5	3	36
Iron & steel industry	2		2						
Non-ferrous metal industry	25							1	24
Chemical industry	12		9				1	2	
Glass, pottery & building mat. industry									
Ore-extraction industry	3						3		
Food, drink & tobacco industry									
Textile, leather & clothing industry									
Paper and printing									
Engineering & other metal industry									
Other industries	19		6				1		12
Transport	215			36	12		163	3	1
Railways									
Road transport	195			34			160		1
Air transport	13				12		1		
Inland navigation	6			2			1	3	
Other transport	1						1		
Households, commerce, pub. auth. etc.	6			1			3		2
Households	1						1		
Agriculture	3			1			1		1
Other sectors	2						1		1
Statistical difference									

Balance of oil products for Montenegro, 2011	Total of oil products	Rafinery gas	LPG	Motor gasoline	Kerosene - aviation fuel	Naphta	Transport diesel and residual fuel oil	Mazut	Other oil products
	1+...+8	1	2	3	4	5	6	7	8
	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t	1000 t
Primary production									
Recovered products									
Imports	316		19	55	12		167	10	53
Stock change									
Exports	- 15			- 12	- 2			- 1	
Bunkers									
Gross inland consumption	301		19	43	10		167	9	53
Transformation input									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Transformation output									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Exchanges and transfers, returns									
Interproduct transfers									
Products transferred									
Returns from petrochem. Industry									
Consumption of the energy branch	1							1	
Distribution losses									
Available for final consumption	300		19	43	10		167	8	53
Final non-energy consumption									
Chemical industry									
Other sectors									
Final energy consumption	300		19	43	10		167	8	53
Industry	80		19	1			4	7	49
Iron & steel industry	5		2					3	
Non-ferrous metal industry	34							2	32
Chemical industry	13		11					2	
Glass, pottery & building mat. industry									
Ore-extraction industry	3						3		
Food, drink & tobacco industry									
Textile, leather & clothing industry									
Paper and printing									
Engineering & other metal industry									
Other industries	25		6	1			1		17
Transport	215			41	10		161	1	2
Railways									
Road transport	202			40			161		1
Air transport	10				10				
Inland navigation	1			1					
Other transport	2							1	1
Households, commerce, pub. auth. etc.	5			1			2		2
Households	1						1		
Agriculture	3			1			1		1
Other sectors	1								1
Statistical difference									

Balance of oil products for Montenegro, 2010	Total of oil products	Refinery gas	LPG	Motor gasoline	Kerosene - aviation fuel	Naphta	Transport diesel and residual fuel oil	Mazut	Other oil products
	1+...+8 1000 t	1 1000 t	2 1000 t	3 1000 t	4 1000 t	5 1000 t	6 1000 t	7 1000 t	8 1000 t
Primary production									
Recovered products									
Imports	331		18	57	19		174	11	52
Stock change									
Exports	- 17				- 17				
Bunkers									
Gross inland consumption	314		18	57	2		174	11	52
Transformation input									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Transformation output									
Thermal power plants (Main producers)									
Thermal power plants (Autoproducers)									
Cogeneration (CHP) plants (Main producers)									
Cogeneration (CHP) plants (Autoproducers)									
Heat-only plants (Main producers)									
Heat-only plants (Autoproducers)									
Patent fuel, briquetting and coke-oven plants									
Oil refineries									
Exchanges and transfers, returns									
Interproduct transfers									
Products transferred									
Returns from petrochem. industry									
Consumption of the energy branch	3							3	
Distribution losses									
Available for final consumption	310		18	57	2		174	8	52
Final non-energy consumption									
Chemical industry									
Other sectors									
Final energy consumption	310		18	57	2		174	8	52
Industry	85		18	57	2		9	8	50
Iron & steel industry	16		9					7	
Non-ferrous metal industry	34							1	33
Chemical industry	9		9						
Glass, pottery & building mat. industry	1						1		
Ore-extraction industry	3						3		
Food, drink & tobacco industry									
Textile, leather & clothing industry									
Paper and printing									
Engineering & other metal industry									
Other industries	22						5		17
Transport	224			57	2		164		1
Railways	1						1		
Road transport	221			57			163		1
Air transport	2					2			
Inland navigation									
Other transport									
Households, commerce, pub. auth. etc.	2						1		1
Households									
Agriculture	2						1		1
Other sectors									
Statistical difference									