

OIL STOCKS' STUDY – STATE OF PLAY

I. SCOPE AND BACKGROUND

1. Scope of the report

This report, prepared by the Energy Community Secretariat presents:

- Brief review of the objectives and scope of work of the study: "Emergency Oil Stocks in Energy Community Level" (the Study).
- The key findings of the study
- Summary evaluation of the outcome against the objectives and
- Next steps

2. Background information

At the first Energy Community Oil Forum held in September 2009 in Belgrade, the Energy Community Secretariat (Secretariat) received the initial indication for implementation of a regional study on emergency oil stocks in conformity with Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products¹.

The 1st Oil Stocks Workshop, in May 2010 discussed and agreed to the development of this regional study in line with the new Oil Stocks Directive.

The 17th PHLG meeting of June 2010 welcomed the launch of an Emergency Oil Stocks Study to provide concrete data related to the possible implementation of Council Directive 2009/119/EC within each Contracting Party and Observer².

The study and its outcome were also in the focus of attention at the 2nd Oil Stocks Workshop on 1st March 2011 in Vienna.

3. The Study – procedural issues

The Energy Community launched the Study³ on 04 June 2010. The Terms of Reference were developed by the Secretariat. Tenders were to be submitted to the Secretariat not later than 5 July 2010. The opening of the bids took place on 6 July 2010 at the premises of the Secretariat. A Bid Opening and Selection Committee was established by the Director of the Energy Community Secretariat to preside over the opening of the bids and the selection of the successful bidder,.

¹ [See the full text of Directive 2009/119/EC](#)

² [Item 12 of the Conclusions - 17th PHLG meeting](#)

³ [Tender Documents](#)

According to the Register of received bids, the Committee determined that Petroleum Development Consultants Ltd (PDC) was the only bid received before the deadline. The Energy Institute “Hrvoje Pozar”, Zagreb (EIHP) was identified as sub-contractor.

The tendering procedure was conducted in compliance with the relevant Austrian law.

In conformity with the Tender Documents for the selection of consultant for the study, the PDC was selected as successful bid and the Contract was signed on 23 July 2010.

II. SUMMARY OF THE STUDY

1. Objectives and Scope of Work

In the context of security of oil supply, stocks play a crucial role in keeping the oil supply system operating. To fulfill such a role, a stockholding system for emergency oil stocks has to ensure that the right stocks are available and can be effectively released in the event of an emergency.

Therefore, the main objective of the Study was to develop a common emergency oil stocks policy and crisis management system in conformity with the Oil Stocks Directive 2009/119/EC.

The scope of work envisaged 5 main targets, primarily related with:

- Providing information on the Beneficiaries⁴ in relation to the outlook for petroleum consumption, import/export oil infrastructure, availability of storage capacities, additional required stockholding capacity and infrastructure.
- Analysis of the current stockholding systems and need for improvements concerning the legal review of the existing relevant legislative framework and changes required for compliance with the acquis. Assessment of the possibility for a regional approach on holding stocks jointly and coordinated stockdraw in order to maximize the economic benefits was also required.
- Analysis related to the available and required mechanisms concerning financial aspects of oil stocks activity.
- Analysis of organizational aspects, in particular related to the establishment of necessary institutions, relevant administrative capacities and structural/procedural framework for rapid response to any supply disruption.
- Preparation of a roadmap for the Energy Community in particular related to the further steps and coordinated time schedule to be followed by the Beneficiaries.

Duration of the Study was envisaged to be 7 months (Sept 2010 – March 2011).

⁴ Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Moldova, Montenegro, Serbia, UNMIK as Contracting Parties and Georgia, Turkey, Ukraine as Observers. Ukraine officially acceded the Energy Community on 1 February 2011.

2. Output of the Study

PDC delivered the initial and interim reports within 2010 which have been sent to all Beneficiaries for review/comments. The final draft report of the Study was electronically sent to the Secretariat on February 20, 2011. On the same date it was forwarded to all Beneficiaries for their comments which are required by 7 March to enable the Final Report to be issued before the end of March 2011.

The ECS organized a workshop on 1 March 2011 in Vienna where the main focus was the review of the results of the Study and its recommendations for moving forward. The Beneficiaries had the opportunity to raise concerns and clarify questions with the report results.

The final draft report of the Study covered the following subjects:

The methodology for the forecasting of demand scenarios, calculation of stocking obligations, initial estimation of facilities construction and operating costs and explanation of forward pricing scenarios for crude oil and petroleum products.

The methodology of the MAED (Model for Analysis of Energy Demand) model was used to project useful/final energy demand.

The stock holding requirement is determined for each Beneficiary according to Directive 2009/119/EC. This requires that the total oil stocks maintained at all times correspond, at the very least, to 90 days of average daily net imports or 61 days of average daily inland consumption, whichever of the two quantities is greater.

Capital construction costs for the required investment in storage capacity were estimated on the basis of the results of the survey and experience of terminal and tankage construction projects implemented in Europe in the recent past. Similarly, operating cost estimates were based on the average operating costs attained at existing European terminals for crude oil and petroleum products.

For each Beneficiary, the Study provides:

- Crude oil and petroleum products supply and demand
- Emergency oil stocks obligations
- The proposed composition of compulsory stocks providing the basis for the required volume of storage to 2021
- Current oil infrastructure and emergency oil stocks situation
- Additional required stockholding capacities
- Legal review and the required legislative changes
- Organizational and financial aspects of the Stockholding System
- Intervention in case of supply disruption and
- Road Map

The Study did not provide a concrete approach for regional co-operation taking into consideration that such arrangements are found to a very limited extent in other areas of the world and are often not followed in any case. These arrangements are dependent on strong bilateral arrangements/relationships and contingency planning for supply interruptions must be in place and demonstrably reliable.

The Consultant provided a road map for achievement of the above points and for implementing changes required of each Beneficiary. The road map contains more detail of the following:

- An indicative time table of the key steps required, showing inter-dependency of various steps where relevant.
- A written summary of the key tasks and sub-tasks detailing the rationale for these tasks based on “gap analysis” (the difference between the current situation and that required by the Directive).
- The precise details of the time table and the tasks/sub-tasks are specific to each Beneficiary and vary depending on each Beneficiary needs and current position.

Based on the envisaged road maps, some preliminary conclusions can be outlined:

- Some of the Beneficiaries, like Albania, Croatia, FYR of Macedonia, Turkey and Serbia, are fairly advanced along the road to complying with Directive 2009/119/EC and full implementation will take 5 to 7 years. They primarily need legislative changes to comply with the Directive and to build new (additional) storage capacities for stockholding purposes.
- The others, like Bosnia and Herzegovina, Moldova, Montenegro, UNMIK and Georgia, currently have no emergency oil stocks in place and are in the process of evaluating possible options. They all require a legal framework for the storage of emergency oil stocks, appropriate emergency response planning and coordination procedures that comply with Directive 2009/119/EC. The construction of additional storage facilities and rehabilitation of those which are suitable will be another important prerequisite. Their full implementation is envisaged to occur within 9 years.
- Details of the emergency oil stocks arrangements of Ukraine are classified as a state secret and so no information is provided. As such, the analysis presented in the Study is incomplete and not likely to accurately reflect the true situation.

Required volume of crude oil and petroleum products storages of each Beneficiary and financial aspect of oil stocks in the period 2011 – 2021 is summarized in the following table. The total investment includes the **capital construction cost** of storage capacities (new and existing storages, land acquisition, construction work, state fees, infrastructure ground work and labour costs), **operating costs** (maintenance, labour, energy, fees and cycling of stocks) and **the acquisition of crude oil/petroleum products** in order to meet the stock holding requirements.

No	Beneficiaries	Required Volume in m3		Required Investment - EURO			Total Investment (€)
		New Storage Capacity Construction	Modernization of existing capacities	New Storage Capacity Construction	Modernization of existing capacities	Purchase of crude oil and products	Period 2011- 2021
1	Albania	97,000	140,000	21,040,000	13,440,000	91,862,000	126,342,000
2	Bosnia and Herzegovina	374,000	182,000	86,160,000	16,832,000	212,000,000	314,992,000
3	Croatia	600,000*			No Data Provided		
4	FYR of Macedonia	244,000*		50,000,000		80,000,000	130,000,000
5	Moldova	327,000*		78,000,000		130,000,000	208,000,000
6	Montenegro	38,800	67,200	9,300,000	6,500,000	60,000,000	75,800,000
7	Serbia	837,000*		172,000,000		370,000,000	542,000,000

8	UNMIK	223,000	34,000	53,500,000	3,300,000	100,000,000	156,800,000
9	Georgia	906,000*		218,000,000		359,000,000	577,000,000
10	Turkey	11,500,000*		2,750,000,000		4,800,000,000	7,550,000,000
11	Ukraine	9,225,000*		2,200,000,000		3,300,000,000	5,500,000,000

*The above figures assume that there is a requirement to build new facilities for the emergency oil stocks and do not include the possible utilization of existing storage capacities.

A Summary of key tasks in the individual Road Maps (as presented in the Study) is attached as an **Annex** to this report.

III. NEXT STEPS

Overall, the Study indicates that the Beneficiaries have a long way to go to achieve full compliance of Council Directive 2009/119/EC. Notwithstanding differences between the Contracting Parties, the Energy Community Secretariat considers the implementation of Council Directive 2009/119/EC as a step forward towards security of energy supply.

Therefore, the Energy Community Secretariat invites the PHLG hereby to consider the following steps:

1. PHLG agrees that inclusion of Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products on the list of applicable Energy Community acquis shall be the main focus for 2011.
2. PHLG invites the European Commission to propose as soon as possible a Draft Decision of MC on the implementation of Directive 2009/119/EC that takes into consideration the conclusions / recommendations of the Oil Stocks Study.
3. PHLG notes that implementation of Council Directive 2009/119/EC will guarantee a high level of security of oil supply in the Energy Community, maintaining minimum stocks of crude oil and/or petroleum products and establishing the necessary procedural means to deal with a serious shortage.

It is on this basis that PHLG is invited to consider the next steps.

ANNEX

ALBANIA

	2011	2012	2013	2014	2015	2016
Task						
Legal						
Give greater powers to CSE						
Organisational and Management						
Engineering						
Secure Engineering Budget						
Assess and design additional tank capacity						
Engineering design for additional tank capacity						
Tender for storage construction						
Build required additional tank capacity						
Stockbuilding						
Arrange financing for purchasing of emergency stocks						
Build-up emergency stocks						
Report compliance progress to the Energy Community						

BOSNIA AND HERZEGOVINA

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Task										
Legal										
Develop regulatory framework/laws										
Enact relevant laws and regulations										
Organisational and Management										
Develop strategy and organisation for managing stocks										
Set up Central Stockholding Entity (as required)										
Develop stockholding obligations for operating companies (if required)										
Development of Emergency Response Planning										
Development of inventory monitoring and reporting system										
Engineering										
Secure Engineering Budget										
Assess and design additional tank capacity										
Engineering design for additional tank capacity										
Tender for storage construction										
Build required additional tank capacity										
Stockbuilding										
Arrange financing for purchasing of emergency stocks										
Build-up emergency stocks										
Report compliance progress to the Energy Community										

CROATIA

Country	2011	2012	2013	2014	2015	2016
Task						
Legal						
Organisational and Management						
Engineering						
Secure Engineering Budget						
Assess and design additional tank capacity						
Engineering design for additional tank capacity						
Tender for storage construction						
Build required additional tank capacity						
Stockbuilding						
Arrange financing for purchasing of emergency stocks						
Build-up emergency stocks						
Report compliance progress to the Energy Community						

FYR of MACEDONIA

	2011	2012	2013	2014	2015	2016	2017
Task							
Legal							
Conclude agreements for Ticketing							
Organisational and Management							
Engineering							
Secure Engineering Budget							
Assess and design additional tank capacity							
Engineering design for additional tank capacity							
Tender for storage construction							
Build required additional tank capacity							
Stockbuilding							
Arrange financing for purchasing of emergency stocks							
Build-up emergency stocks							
Report compliance progress to the Energy Community							

MOLDOVA

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Task										
Legal										
Develop regulatory framework/laws										
Enact relevant laws and regulations										
Organisational and Management										
Develop strategy and organisation for managing stocks										
Set up Central Stockholding Entity (as required)										
Develop stockholding obligations for operating companies (if required)										
Development of Emergency Response Planning										
Development of Inventory monitoring and reporting system										
Engineering										
Secure Engineering Budget										
Assess and design additional tank capacity										
Engineering design for additional tank capacity										
Tender for storage construction										
Build required additional tank capacity										
Stockbuilding										
Arrange financing for purchasing of emergency stocks										
Build-up emergency stocks										
Report compliance progress to the Energy Community										

MONTENEGRO

	2011	2012	2013	2014	2015	2016	2017
Task							
Legal							
Implement proposed commodity reserve laws							
Organisational and Management							
Constitute and form CSE							
Engineering							
Secure Engineering Budget							
Assess and design additional tank capacity							
Engineering design for additional tank capacity							
Tender for storage construction							
Build required additional tank capacity							
Stockbuilding							
Arrange financing for purchasing of emergency stocks							
Build-up emergency stocks							
Report compliance progress to the Energy Community							

SERBIA

Country	2011	2012	2013	2014	2015	2016	2017	2018
Task								
Legal								
Updating of Commodity Reserve Laws								
Organisational and Management								
Engineering								
Secure Engineering Budget								
Assess and design additional tank capacity								
Engineering design for additional tank capacity								
Tender for storage construction								
Build / rehabilitate required additional tank capacity								
Stockbuilding								
Arrange financing for purchasing of emergency stocks								
Build-up emergency stocks								
Report compliance progress to the Energy Community								

UNMIK

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Task										
Legal										
Develop regulatory framework/laws										
Enact relevant laws and regulations										
Organisational and Management										
Develop strategy and organisation for managing stocks										
Set up Central Stockholding Entity (as required)										
Develop stockholding obligations for operating companies (if required)										
Development of Emergency Response Planning										
Development of Inventory monitoring and reporting system										
Engineering										
Secure Engineering Budget										
Assess and design additional tank capacity										
Engineering design for additional tank capacity										
Tender for storage construction										
Build required additional tank capacity										
Stockbuilding										
Arrange financing for purchasing of emergency stocks										
Build-up emergency stocks										
Report compliance progress to the Energy Community										

GEORGIA

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Task										
Legal										
Develop regulatory framework/laws										
Enact relevant laws and regulations										
Organisational and Management										
Develop strategy and organisation for managing stocks										
Set up Central Stockholding Entity (as required)										
Develop stockholding obligations for operating companies (if required)										
Development of Emergency Response Planning										
Development of inventory monitoring and reporting system										
Engineering										
Secure Engineering Budget										
Assess and design additional tank capacity										
Engineering design for additional tank capacity										
Tender for storage construction										
Build required additional tank capacity										
Stockbuilding										
Arrange financing for purchasing of emergency stocks										
Build-up emergency stocks										
Report compliance progress to the Energy Community										

TURKEY

Country	2011	2012	2013	2014	2015	2016
Task						
Legal						
Organisational and Management						
Engineering						
Secure Engineering Budget						
Assess and design additional tank capacity						
Engineering design for additional tank capacity						
Tender for storage construction						
Build required additional tank capacity						
Stockbuilding						
Arrange financing for purchasing of emergency stocks						
Build-up emergency stocks						
Report compliance progress to the Energy Community						

UKRAINE

	2011	2012	2013	2014	2015	2016
Task						
Legal						
Amend laws on commodity resevers to comply with 2009/119/EC						
Organisational and Management						
Engineering						
Secure Engineering Budget						
Assess and design additional tank capacity						
Engineering design for additional tank capacity						
Tender for storage construction						
Build required additional tank capacity						
Stockbuilding						
Arrange financing for purchasing of emergency stocks						
Build-up emergency stocks						
Report compliance progress to the Energy Community						

