REPORT ON THE STEPS, RELATED TO
THE ENERGY COMMUNITY OIL DIMENSION

I. BACKGROUND

Oil dimension accounts for the most recent policy development in the context of the Energy Community process. It is based on the Energy Community Ministerial Council decision in December 2008 to include oil as part of its definition on “network energy” and to establish Oil Forum as a new, pan–regional consultation platform. The possible implementation of the EU Council Directive 2006/67/EC on strategic oil stocks in the Energy Community was part of this decision.

This report outlines the first concrete steps after the Ministerial Council decision as indicated above. It focuses mainly on:

- the first Energy Community Oil Forum;
- Planned next steps in relation to the development of the Oil Dimension.

However, prior to providing concrete information in these two aspects, some summary data on the oil related issues in the region is hereby provided.

1 Oil is a key component of today’s energy mix in the Contracting Parties accounting for about 38% and it is likely to remain so in the foreseeable future. It is a finite resource, where remaining oil in place are around 600 million tons. Existing oilfields are depleted. Oil production and export potential is likely to decline, while its imports will increase. Oil demand rapidly increased by 53 % within 9 years (2000 - 2008). Crude oil dependence in 2008 was around 84% and increased by 17% since 2000. Refineries operate 40%-42% of nameplate capacity and technical, environmental and quality improvements are required in order to achieve the EU standards. The maximum capacity of storage tanks in the region is about 3 million m3 but without knowing the real condition of the tanks. Existing regional oil network infrastructure remains poor and limited. Only Albania has built in 2009 two new import export terminals in Adriatic Sea (please see the

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1 According to data, provided by the Contracting Parties – see answers to Questionnaire, (link - http://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Oil ), IEA and JBC Energy.
Attachment). The new proposed oil pipelines remain uncertain for the starting date; further, they are competing for the same sources of oil markets. A common characteristic is that they are designed to carry crude oil from Russia and/or the Caspian basin, and are all at least partially justified as means of relieving transport congestion in the Turkish Straits. Promotion of these pipelines will increase the security of oil supply to the Contracting Parties as external sources and routes diversification, positive aspect about transport security and reduction of greenhouse gases emissions and local air pollution (Please see attached detailed information). Advanced Technology in our region is not at the required level but should be considered as a very important element in accessing resources, developing diversity of supply as well as extending the life of existing oilfields. Advancing technology allows finding more oil, improving the recovery factor, reducing capital and operating costs, improve safety performance and be in compliance with increasing environmental requirements.

II. FIRST OIL FORUM OF THE ENERGY COMMUNITY

The first Oil Forum in the context of the Energy Community was jointly organized by the Energy Community and International Energy Agency (IEA) with the support of the Serbian Government and Transnafta on 24-25 September 2009 in Belgrade.

This Forum, which was officially opened by H.E. Mr. Mirko Cvetkovic, Prime Minister of Republic of Serbia, was attended by high-level representatives from governments, public and private oil companies, investors, international financial institutions and donors.

The forum focused on several major issues - developing the oil dimension, implementation of EU legislation on emergency oil stocks, the current situation with the planned pipelines in the region, perspective for downstream oil business, investment in refining and experience of Contracting Parties in exploration and production. The key focus of the first Oil Forum was the developments concerning oil stocks in South East Europe and was considered as an integral part of the region’s security of supply concept.

Common to the speakers at the Forum was the call to establish emergency oil stocks in the Contracting Parties on the ground of the new EU approach. Explicit call to the participants was the need to take into consideration the complexity of establishing oil stocks, which involves substantial financial means and presupposes vast cooperation between the governments and the business. The role of the available oil stocks in SEE for overcoming the gas crisis in January 2009 was also referred to as concrete example of practical importance for paying due attention to the issue.

On this ground, the Forum welcomed the initiative of the Energy Community Secretariat to organize concrete workshops on the topic, starting early 2010. This will guarantee that the discussions continue in details at expert level. Thus, the aim of the first workshop could be to present the most advanced practices in the region for the maintenance, managing and reporting of the emergency oil stocks and deciding for a common approach in all Contracting Parties.

Another request by the speakers was for implementation of a regional study on emergency oil stocks and developing a strategy on secure infrastructure systems.
III. PROPOSAL FOR NEXT STEPS (SUMMARY OUTLINE)

The Energy Community Secretariat considers the Emergency Oil Stocks as an integral part of the region’s security of supply concept.

Thus, on the ground of the political guidance by the Energy Community Ministerial Council, the Secretariat considers concrete steps as to promote further the development of the oil dimension.

The steps are based on the following major needs, which became clearly evident during the first Oil Forum:

- Promotion of the emergency oil stocks preparedness as a tool to overcome energy supply disruptions;
- Support most of the Contracting Parties in developing a concrete approach for dealing with the Oil Dimension with explicit focus on oil stocks;
- Focus on the institution building and relevant administrative capacity;
- Promotion of the relations between the competent governmental institutions and the business.

On this ground, the following major steps are considered within 2010:

1. Establishment of contact persons’ list, including representatives of the Contracting Parties and Observers;
2. Creating a scheme for exchange of technical, legal and financial data on the ground of the best practice approach;
3. Organization of two workshops on oil stocks (focus on institution building and financial and organizational aspects).

The PHLG is hereby invited to consider these steps.
ATTACHMENT

I. MAIN OIL TERMINALS IN THE REGION OF SEE

ALBANIA:

The main Ports that are related with oil:

-Vlora Bay with two terminals:
  • “Vlora-1” Port with capacity 65,500 m³,
  • ARMO oil terminal with capacity 30 000 m³

-Porto – Romano” Port with capacity 80 000 m³

ROMANO PORT sh.a. is legally established in 28 October 2003 from its shareholders. The aim and continuity of this society in relations with the Albanian State is the construction, use of a port for discharge of fuel and LPG, according to all provisions and laws.

This planning has been for these reasons:

- Imports of oil and LPG are grown very quickly
- Completion of term deposits of oil at the port of Durres

Romano-Port has built 6.5 km north of the city of Durres. Currently in the area are built oil tanks with a capacity of 20,000 m³ and LPG tank with the capacity of 10,000 m³.
The terminal can process maximum capacity shipping and proper operation of 9,000 tonnes of LPG and 16,000 tonnes of oil per day.

Discharge capacity from the tanker of Oil and products capacity is 800 tonnes/hour for oil and 200 tonnes/hour for LPG. Automated: Service, Physical Monitoring System, safety against fire, control of system commanded by distance.

The first ship arrived in April 2009 and every removal procedure was carried out successfully.

Romano Port has been excluded from all taxes and customs duties for imported materials, equipment and instruments that have been used for construction of terminal and infrastructure link, in accordance with the approved project. Albanian government remains the owner.

**La Petrolifera Italo Albanese Sh.A. (PIA)** operates a coastal terminal for LPG (Liquefied Petroleum Gases), Crude Oil, Petroleum Products (Diesel, Gasoline etc.) and additional liquid and dry products in the Bay of Vlora.

The new coastal terminal fills a lack of infrastructures and allows Customers to supply both the Albanian market and the neighboring Countries through the European Corridor VIII (rail plus road) also taking advantage of the favorable location of the Bay of Vlora, located at the entrance of the Adriatic Sea and very close to the main Italian and Greek refineries.

Next construction stages, will provide additional storage capacity for oil products, LPG and chemicals.

**Terminal Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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<tbody>
<tr>
<td>Total storage capacity:</td>
<td>61,000 m3 (tanks)</td>
</tr>
<tr>
<td></td>
<td>4,400 m3 (spheres)</td>
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<tr>
<td>Number of tanks:</td>
<td>11 tanks</td>
</tr>
<tr>
<td></td>
<td>2 spheres</td>
</tr>
<tr>
<td>Range of tank capacity</td>
<td>3,000 - 13,000 m3 (tanks)</td>
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<tr>
<td>Products handled</td>
<td>Petroleum products, LPG, other liquids</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Services available</td>
<td>Storage hire, in and out via vessels / tank trucks / tank containers / railcars, dedicated loading / unloading system, dedicated system for daily stock inventory reporting</td>
</tr>
<tr>
<td>Additional services</td>
<td>Blending, bunkering and product heating</td>
</tr>
<tr>
<td>Sea-tankers accommodation</td>
<td>Jetty</td>
</tr>
<tr>
<td></td>
<td>LOA 180 m</td>
</tr>
<tr>
<td></td>
<td>Beam no restriction</td>
</tr>
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<td></td>
<td>Depth 10m (draft according to Harbour Master)</td>
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</table>

**CROATIA:**

The main port that are related with oil and petroleum products activities are:

- Rijeka - 1,216,000 m³
- Omišalj - 820,000 m³
- Zadar - 97,000 m³
- Split - 77,000 m³
- Ploče - 100,000 m³

**The Omišalj Port and Terminal**

The Port of Omišalj, located in the north part of the Island of Krk, in the Omišalj Bay, is ideal for crude oil receipt and discharge. Owing to its position, it is perfectly sheltered from the outbursts of strong wind and wave impact. Two tanker berths with the sea depth of 30m may accommodate even the largest tankers, without limitation. With the help of pilots and tug-boats, the entire operation of manoeuvring and berthing of even VLCCs does not take more than a couple of hours.

Each of the berths has four unloading arms for crude oil and two for oil products, with reloading capacity of 5,000m³/h each, i.e. 20,000m³ of crude oil per berth. Tankers may load and unload oil 24 hours a day, 365 days a year.
Used for crude oil storage at the Omišalj Terminal are as follows:

- four tanks with nominal capacity of 40,000 m³ each
- five tanks with nominal capacity of 72,000 m³ each
- three tanks with nominal capacity of 80,000 m³ each

Total capacity = 760,000 m³

At the Omišalj Terminal, there are also tanks for petroleum products, while, right next to the tanks, there is a road loading facility for oil products.

Used for oil products' storage at the Omišalj Terminal are as follows:

- four tanks with nominal capacity of 10,000 m³ each
- one tank with nominal capacity of 15,000 m³
- one tank with nominal capacity of 5,000 m³

Total capacity = 60,000 m³

**Port of Ploce**

In 1997 by a Decision of the Government of the Republic of Croatia, the Port of Ploce Authority was formed as a public institution in charge of construction, maintenance, administration, protection and promotion of the port area in Ploce. According to its purpose, the port of Ploce is a port opened for international public traffic, and taking into consideration its size and importance, it has been proclaimed as the port of the special international economic interest for the Republic of Croatia.

The main goal of the Port of Ploce Authority is the transformation of the port from traditional port into the regional centre of logistics where various distribution and value added services would be carried out on the goods which transit the port, along with the port manipulations by sophisticated port technology.
BiH has oil storage tanks in this port and its capacity is around 84,000 m³.

**MONTENEGRO**

**Port of Bar**

Construction of the Port formally started in 1905. It was destroyed almost completely in 1944 during the Second World War.

Its reconstruction started in 1950, and the construction of a large port started four years later. The first phase was completed in 1965. In 1976, the construction of railway line Belgrade – Bar was completed and it provided, in the best way possible, the connection of the Port with the inland. Second phase that had in plan an annual turnover of around 5 million tons of cargo was almost completed, when the catastrophic earthquake struck in 1979, destroying more than half of modern port facilities.

Reconstruction and renewal of port facilities started in 1981 and “the latest” port of Bar, capable of handling around 5 million tons of cargo, was set in motion on July, 1983.

On this terminal there are operative berths (depth 12.5 m) where turnover of oil and petroleum products is handled (vessel – installations – tanks and vice versa), with storing capacity of 120,000m³, owned by “Jugopetrol” and crude oil tanks, owned by Port of Bar (capacity 1,400m³ with decanting installations) make separate parts of the Terminal.

**OTHER CONTRACTING PARTIES**

In Bosnia and Herzegovina, former Yugoslav Republic of Macedonia and Serbia the transportation of crude oil is executed by pipeline only and do not have any oil terminals. In Kosovo (under Resolution 1244 of UN Security Council) there is no even pipeline system.
II. OIL PIPELINES IN THE REGION

As early as 1994, when Western Oil Companies were exploring and developing the Caspian Sea Region, it was recognized that export routes from the Caspian and Black Seas would be problematical. Since that time, only two new export pipelines have been built, one from Tengiz in Kazakhstan to the Black Sea port of Novorossiysk in Russia, known as the CPC (Caspian Pipeline Consortium) and the BTC (Baku Tbilisi Ceyhan) pipeline from Baku to Ceyhan, Turkey, on the Mediterranean. A refurbished pipeline from Baku to Supsa on the Black Sea coast of Georgia has also been commissioned.

BTC can be regarded as an export pipeline in the traditional sense in that it starts at a producing field and terminates at an export port capable of loading any size of tanker, which can then sail economically to world markets. All other pipelines, new or old, terminate in the Black Sea where tankers are loaded, having then to navigate the restrictive Turkish Straits.

In the 1990’s, crude oil exports through The Bosphorus and The Dardanelles amounted to some 30 Million Tonnes per Annum. Today the volume is over 100 MTA. The early days of Caspian production showed that The Straits could handle the volumes until they reached 50 MTA. It was then recognized that a new regime of navigation was needed along with sophisticated sonic and electronic aids. New systems and regulations were introduced and coped quite well until the CPC Pipeline was commissioned. This raised the tonnage through The Straits to 80 MTA in 2002.

Severe delays were then experienced particularly in the winter months. Up to this point Shippers had persuaded themselves that a bypass was not necessary and good management of The Straits could handle the situation. The winter of 2003/2004 dispelled that belief once and for all when demurrage and delays through The Straits cost the industry at least $7,000 million USD in a space of just three months. Since then it is calculated that added shipping costs are a minimum of $400 million per year.

In the Contracting Parties we have the following situation:

Adriatic oil pipeline (Adria) was built in the 1970s to supply all Yugoslav refineries with crude oil from international markets (primarily Africa and the Middle East). Originally designed to carry up to 34 Mt/y, Adria’s current capacity is 20 Mt/y. The pipeline starts at the Croatian port of Omisalj, where tanker-supplied oil is taken inland to the Rijeka and Sisak refineries. The pipeline branches at Sisak, with one branch continuing to Hungary and another extending east to Serbia. Adria’s eastern branch first connects to the Bosanski Brod refinery in Bosnia and Herzegovina (that has started again its operations in November 2008). It then enters Serbia to supply the Novi Sad and Pancevo refineries, which are fully dependent on its supplies. Adria is jointly owned and operated – by Jadranski Naftovod (JANAF) of Croatia until the Croatian / Serbian border and then by Nafta Industrija Srbije (NIS).
The Thessaloniki-Skopje oil pipeline runs approximately 200 km, linking the Mediterranean port of Thessaloniki (Greece) to the OKTA refinery near Skopje (FYR Macedonia). Built in 2001 (at a cost of EUR 85 million), the pipeline is owned and operated by Hellenic Petroleum, which also owns a 54% share of the OKTA refinery (since 1999). The pipeline’s capacity of 2.5 Mt/y matches the nameplate capacity of the OKTA refinery.

POSSIBLE PROJECTS - CRUDE OIL PIPELINES
PAN EUROPIAN OIL PIPELINE - PEOP

PEOP is a proposed oil pipeline from Constanta in Romania via Serbia and Croatia to Rijeka and from there through Slovenia to Trieste in Italy. The aim of the pipeline is to bypass Turkish straits in the transportation of Russian and Caspian oil to Central Europe. In Trieste the pipeline will be connected with the Transalpine Pipeline, running to Austria and Germany. According to the implementation plan the Ministerial Declaration on PEOP was signed in April 2007 by all five interested states and the European Energy Commissioner. Its task will be promotion of the PEOP and providing investors interested in the project. The idea of PEOP project is that this oil pipeline is connected with TAL – Trans Alpine Pipeline in Trieste, after fulfillment the needs of refineries in five countries where it is passing through. Thus it would appear as one of the main suppliers of Central Europe with crude oil. In this moment, referring to the prior preliminary estimations, the oil pipeline is calculated with the capacity of 40 mil tons/year. The route of this oil pipeline is taken from the “Feasibility Study for Constanta, Pancevo, Omisalj, Trieste Oil Pipeline Project” prepared by the American engineering company HLP Parsons in 2004.

Technical Data:

Total length 1,320 km
Estimated optimum capacity - 40 MTA of crude oil
Estimated investment volume is approximately $ 3 bln for 1320 km route
Transport crude oil of Caspian and Black Sea Region Oils
6 refineries to feed with the oil on the route
Connection to TAL and NIL pipeline systems in the perspective
In line with the routes of CONPET, TRANSNAFTA & JANAF

Company Overview:

At the general meeting of the Interstate Committee for PEOP in February 2008, the Decision on incorporating of the Project Development Company (PDC) was taken, with the headquarters in London/UK, and it was registered in June that year.

Shareholders agreement (sha) – signed in April 2008 in Bucharest by Romanian, Serbian and Croatian oil transportation & terminal companies with open access to Italian and Slovenia companies.
The main task of the PDC is to organize the Investment Conference and to fulfill the main objectives:

To define a possible supply from the Black Sea oil terminals and a demand for crude oil in the Central Europe
To define the environmental impacts and mitigation measures
To assess a pipeline corridor in terms of geo-hazards, technical feasibility and constructability
To provide an overview of legalities and legal framework for investment, ownership structures and necessary permissions to allow construction
To define potential next steps and assist with an application for financing

Summary:

PEOP will prevent disruption of supply of crude oil and petroleum derivates at a national/regional level – Council Directive 2006/67/EC – member countries to maintain minimum stocks of crude oil and petroleum products and will provide Sustainable supply and enabling increase of transport volume from Caspian basin; PEOP advantage will be appropriate use of existing facilities, stranded assets, corridors and terminals and will not require additional reloading (pipe-into-pipe with TAL and NIL pipelines in Italy and DRUZHBA – ADRIA pipeline in Croatia)

**AMBO PIPELINE**

**Project Description**

The proposed AMBO Pipeline will be a dedicated pipeline system to transport a minimum of 750,000bbls/day – 30million tonnes per annum (MTA) – of crude oil from a new build Port and Terminal in Bourgas – Bulgaria, through Macedonia to a new build export Load Port and Terminal in Vlore – Albania.

Tankers of all sizes will ship oil from Vlore to international markets. The proposed 36" diameter pipeline will be 870km long in total. It will have three pump stations; two in Bulgaria and one in Macedonia.

The pipeline system will be designed to operate under a ‘quality bank’ system to accommodate at least two categories of crude oil.
Company Overview

AMBO LLC is a U.S. Registered Company supported to date by private investors; it is the project initiator and developer with an exclusive mandate from the three host countries. AMBO established a team of internationally recognized experts to partner with it in achieving its objectives. The team is composed of the following:

- AMBO, L.L.C – Project Developer & International project coordination.
- White & Case, L.L.P – Legal Affairs.

AMBO LLC has reached a stage where investors of substance are required to take this Project forward to completion.

Projected crude oil volumes tell that a bypass is needed by 2012 if they start now.

Pipeline Economics:

<table>
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<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput Tariff</td>
<td>US$ 1.75/bbl</td>
</tr>
<tr>
<td>Project IRR</td>
<td>19%</td>
</tr>
<tr>
<td>Project IRR (Leveraged)</td>
<td>27.5%</td>
</tr>
<tr>
<td>Debt Finance Period</td>
<td>10 years</td>
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Current Status

A comprehensive Feasibility Study was completed by Brown & Root in 2000 and has remained the basis of the development. Subsequently, a ‘Right of Way’ (ROW), or Corridor of Interest, has been established with the host countries approval. This ROW largely follows the EU’s Corridor VIII Transportation Link connecting the three countries together for rail, highway, telecommunications, gas and energy.

A Memorandum of Understanding (MOU) between the three countries was signed in late 2004, committing the three countries to negotiate a Tripartite Agreement (IGA) to treat the Pipeline Corporation in a single unitary manner in the three countries for purposes of negotiation and dispute settlement. This Agreement or ‘Convention’ has been signed and ratified by the respective Governments and Parliaments of the three States, coming ‘Into Force’ in October 2007.

Summary

This project gives investors an excellent opportunity to benefit from the crude oil being exported from the Southern Russia/Caspian Sea Region to the Black Sea by the consortia of large oil companies.

International Oil Companies that are exploring and developing prospects in the greater Caspian Sea Region are seeking multiple export routes. Europe, with a view to security of supply, has the same desire for diversity of routes.
With limited and restrictive access to the Bosphorus Straits, the most economic and practical transport route to exit the Black Sea will be through AMBO’s proposed Trans Balkan crude oil pipeline. The export port of Vlore offers the most economic load port of all bypass proposals. This pipeline will help bring economic prosperity and increased political stability to the Balkans through regular payments of hard currency transit receipts to each country. In addition, these host countries will become part of the energy supply route to Europe and the West as well as becoming part of the solution to the security of energy supply.

**The Burgas –Alexandroupolis (BAP) Oil Pipeline Project**

**Project Description**

The Bourgas-Alexandroupolis oil (B-A) pipeline was conceived in 1993 by Russian and Greek companies aiming to transport crude oil from Russia, Azerbaijan, and Central Asia (Kazakhstan, Turkmenistan) to Alexandroupolis on the Aegean Sea. The pipeline is intended to bypass the Bosphorus, which forms a bottleneck for tanker traffic between the Black Sea and the Mediterranean. It is seen as an extension of the Caspian Pipeline Consortium route and would transfer 35 million tonnes of crude oil per year. From Alexandroupolis, oil would be freighted by tanker to Western Europe and the USA.

Technical Data:

35 million tonnes per annum (MTA) based on ILF Study.
Main pipeline length: 256-279 km
Overall Pipeline Length: 280 +303 km
Pipeline Diameter: 36"

**Intermediate Pumpstation**

**Burgas**: Tank Farm Capacity: 450.000 m3 + 2 Swing Tanks x 20.000 m3
Marine Facilities: 2 Piers x 2 Berthing Points for Tankers of 150.000 dwt

**Alexandroupolis**: Tank Farm Capacity: 750.000 m3+ 2 Swing Tanks x 20.000 m3
Marine Facilities: 2 SPMs x Accommodating 2 Tankers of 300.000 dwt each

**Capex**: Total CAPEX for Both Countries Including Facilities for 300.000 dwt tankers is 1 Bln Euros.
Project Background:

1993 1994:
Athens - Concept of the Burgas – Alexandroupolis Project

September 2000:
Moscow – Establishment of the Project’s Trilateral Working Committee among Bulgaria, Greece and Russia.

April 2005: Russia, Bulgaria and Greece signed a Trilateral Declaration of Cooperation.

Mar 2007:
Athens - Russia, Bulgaria and Greece signed an Intergovernmental Agreement.

February 2008
Amsterdam: Incorporation of the International Project Company of the Project “Transbalkan Pipeline B.V.” in Netherlands.

Company Overview:

SHAREHOLDERS:

RUSSIAN SIDE (51 %): 1. Pipeline Consortium Burgas Alexandroupolis Ltd 2. Gazprom Neft and 3. Rosneft
BULGARIAN SIDE(24.5 %): 1. JSC Pipeline Burgas-Alexandroupolis 2. Bulgargaz, 3. Technoexportstroy


Next Steps:

Updating of the Project's Studies; Preparing and signing of the host government agreement; Licensing; Financing and Construction