

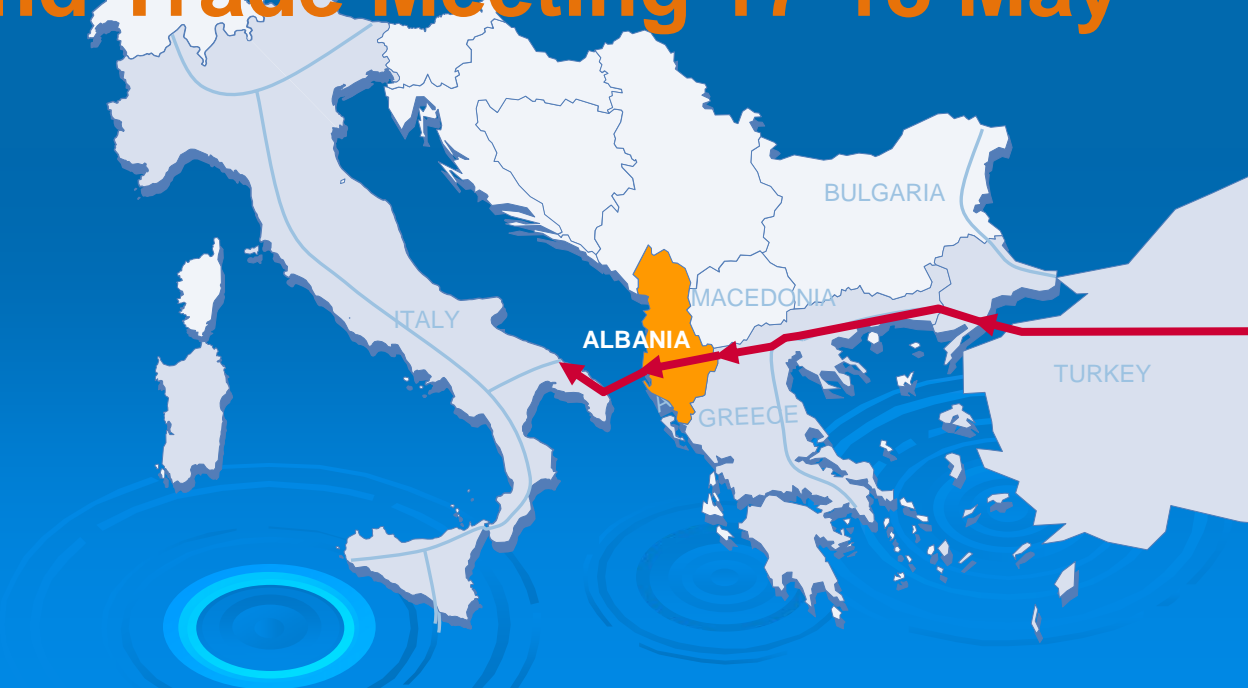


REPUBLIC OF ALBANIA
MINISTRY OF ECONOMY, TRADE AND ENERGY
National Agency of Energy

Interconnecting Albania in the Eurasia Gas Corridor

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Situation

This presentation identifies the actual situation in the Albanian Gas sector and the need to interconnect to the Eurasia Gas Corridor as a priority investment project in this sector to enhance reliability and security of supplies and stimulate sustainable economic growth and stability.

- **Albania has oil in place reserves but natural gas reserves have been almost exploited and recoverable reserves seem very limited.**
- **Albania thereby contributes to creating conditions of reliable and clean energy markets in South East Europe for the benefit of the whole EU.**

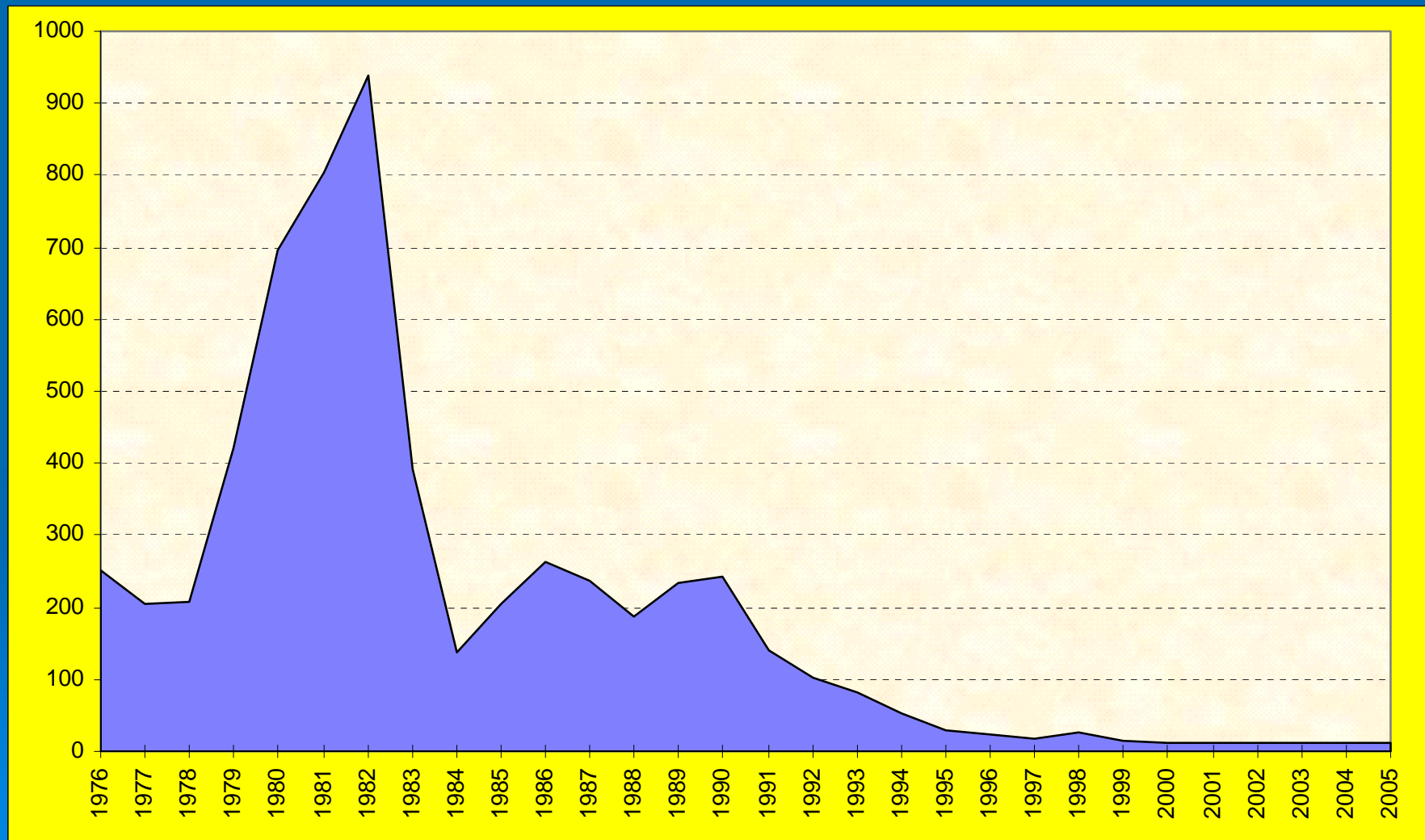
Situation

- The commercial production and consumption of natural gas in Albania commenced in the 1960s
- **Until the end of 2005** about 3.5 billion c. m. of natural gas were extracted from these gas fields and about 9.8 billion c. m. of associated gas were extracted from the oilfields resulting in a total of 13.3 billion c. m. of gas.
- **The Albanian gas industry** is severely restricted, with a total of 410 km of pipelines linking the gas fields with the main consumers.

Situation

- **Gas system** has been practically out of use due to the low level of gas availability.
- **Gas production in the 2005** is about 13 million c.m per year.
- **The recoverable amount of natural gas** is estimated to be in the order of 1.5×10^9 Nm³.
- **Indigenous gas resources** can not contribute significantly to the national primary energy balance

Gas production in Albania 1980-2005 period. (million cubic meters)



Albanian Gas Market

- Supply and demand in the Albanian Gas market are deeply out of balance.
- The demand is high, whereas the supply is incapable of satisfying it. As a consequence, important consumers of natural gas such as the fertilizer plant are closed due to lack of gas.
- Growth of Gas Demand (in particular in the industrial and power markets) is expected to be substantial once secure long term gas supplies are available

- **Albania will have a gas market** for industrial consumers and for the production of electrical energy.
- Prediction for the year 2010 is 0.8 to 1.0 billion c. m. and for 2015 1.6 to 2.0 billion c. m.

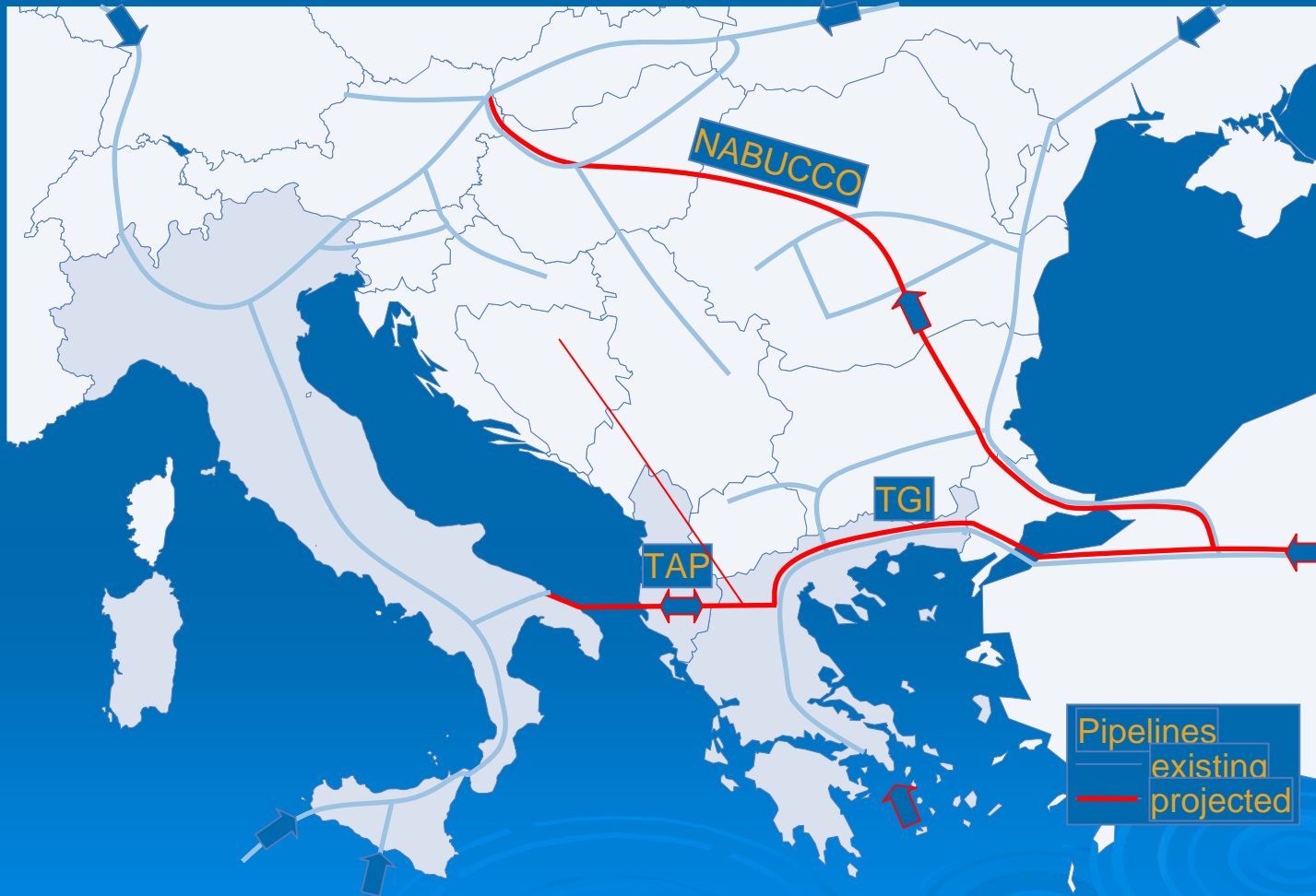
The natural gas demand forecast provided herein considers this time horizon giving priority to the following candidate sectors:

- 1st priority: Power sector and industrial uses;
- 2nd priority: Residential and tertiary sector space heating;
- 3rd priority: Residential cooking and hot water uses.

Strategy for the Development of the Gas Sector in Albania

- Linking Albania with the international gas network according to the best option (Eurasia Gas Corridor)
- Development of regional underground gas storage reservoirs
- Preparation of the necessary legal framework in the field of gas supply (Regulatory and Investment framework reliability)
- Development of national gas resources
- Restructuring the existing system for gas transmission in Albania
- Management of the Albanian gas market
- Use of natural gas for the production of electrical energy with gas fired thermal power stations

Potential for Development of the SE European Gas Network



Gas Supply Options

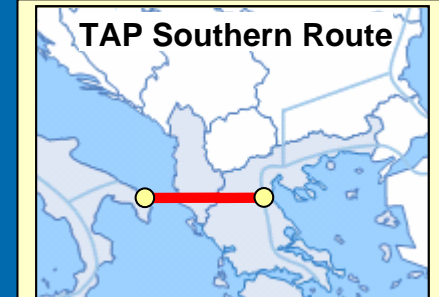
- **Option A: Supply of Albania with Russian gas via FYR Macedonia**, which requires an extension of the existing gas network in Macedonia (difficult acc. to Technical Feasibility)
- **Option B: Supply of Albania with gas from Northern Africa or the European grid via Southern Italy** (Otranto) towards Albania (unclear economics of Algerian supplies, but could serve in reverse flow on TAP at a later stage)
- **Option C: Supply of Balkan and Western European countries with gas from the Caspian Sea Region** via Turkey and Greece to Southern Italy crossing Albania (incl. access to Greek LNG terminal).
- **TRANS ADRIATIC PIPELINE (TAP)** is the most favourable gas infrastructure option for Albania

Overview TAP Pipeline Route

- The proposed Trans Adriatic Pipeline (TAP) shall link new Gas sources in the Caspian, Russia and Middle East via South East Europe & Albania with Italy
- TAP provides gas supply to Albania, allows to develop its storage potential, contributes to development of clean CCGT power generation projects, and reduces investment costs both for transit and Albania's gasification substantially
- Compared to the TAP project, the IGI routing is significantly longer, technically more challenging and therefore requires significantly higher capital investment (in excess of 150 Mio EUR).



TAP secures high Supply Diversification and low Transmission Cost



Technical	Studies	Feasibility Study	Feasibility Study	Feasibility Study
	Offshore/Total	90 km / 900 km	210 km / 800 km	90 km / 570 km
	Water Depth	800 m (S-Lay)	1400 m (J-Lay)	800 m (S-Lay)
Supplies		Russia	Caspian, Turkey, LNG	Caspian/Middle East Russia, LNG
Transit Countries		Alb., Maced., Bulgaria	Greece	Albania, Greece
CAPEX (Mrd EUR)	Albania	0.20	--	0.20
	Other Countr.	0.65 (Bulgaria, Maced.)	0.36 (Greece)	0.24(Greece)
	Offshore	0.25 (Albania, Italy)	0.48 (Greece, Italy)	0.25(Albania, Italy)
	Total	1.10	0.84	0.69
TARIFF*	(€/MWh)	2.0	1.9	1.7

* Western Turkey Border to Italy

TAP Project Status

- **Feasibility Study** completed for Northern & Southern Route
 - Both routes technically, environmentally and economically feasible
 - Southern Route most economic
 - Feasibility Study on Greek territory completed by 04.2006

- **Basic Engineering** started in March 2006

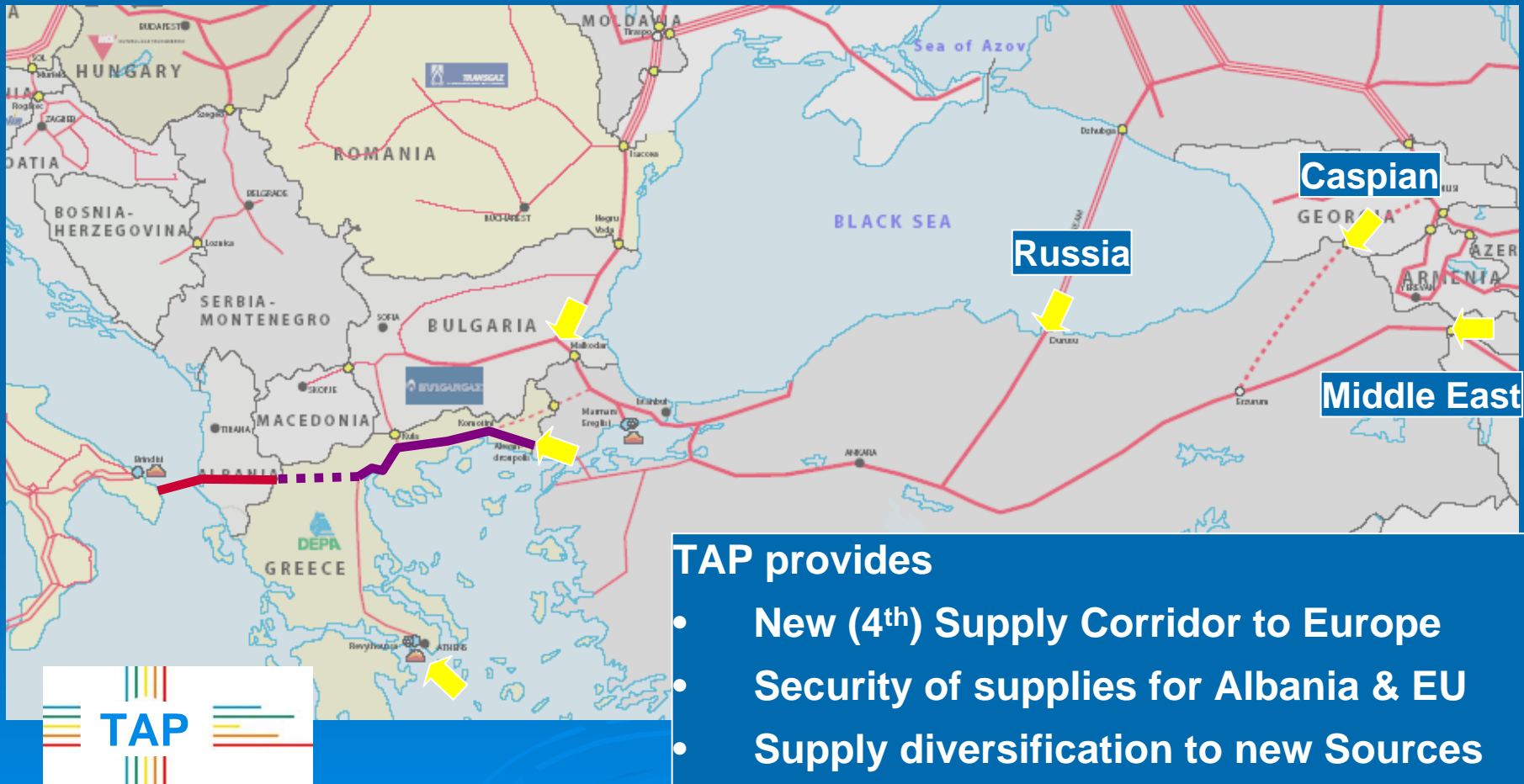
- **Financial Engineering** kicked-off in March 2006

- **EU (DG TREN, TEN-E, Parliament) supports TAP as TEN-E Priority Project**
 - DG TREN financially supports 50% of Feasibility Study cost

- **Political support of EU, Stability Pact, World Bank, Italy and Albania secured**
 - Ministry of Industry & Energy, Albania, issued Concession Authorization (17 June 2005)
 - MAP, Italy, supported TEN-E/DG-TREN applications



TAP - Potential Supply Sources

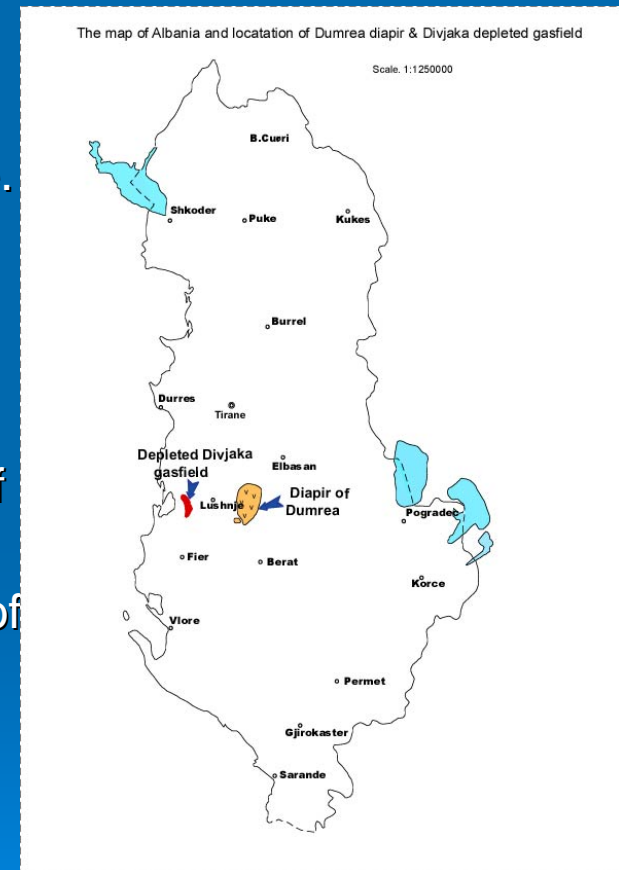


TAP provides

- New (4th) Supply Corridor to Europe
- Security of supplies for Albania & EU
- Supply diversification to new Sources
- Competition in EU Gas Markets

Underground Storage in Albania

- Depleted gas reservoirs and Salt domes constitute a very important contributing element to TAP.
- The storage capacity of these Albanian reservoirs amount to about 1.8 billion cubic meters.
- Salt dome at Dumre and the Diapir of Dumrea are good areas to serve as a peak and seasonal storage.
- The design of underground gas deposits is a project of regional interest and with a particular importance for Albania and Italy.
- Flexibility and security of power supply in Italy will greatly benefit from Albanian gas storage because of the numerous CCGT power projects in Italy.
- TAP will further enhance the development potential of Albanian storage for the benefit of both Albania and Italy.



CONCLUSIONS

- The integration of Albania in the European gas network is one of the objectives of the Albanian Government for the future.
- There are in place different projects assessing the best variant of linking Albania with the existing European gas network, refer to the Energy Community Treaty for SEE and future cooperation according to this Treaty.
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- The rehabilitation of the domestic energy sector and the upgrade of the system to international technical, environmental and security standards, is the first step to guarantee a proper development and integration of Albania in the regional energy contest.
- The aims in the medium and long term to the full connection to the natural gas regional systems.



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THANK YOU FOR YOUR
ATTENTION

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