



REPUBLIC OF ALBANIA

MINISTRY OF ECONOMY, TRADE AND ENERGY

PERSPECTIVES AND CHALLENGES FOR DEVELOPING THE GAS MARKET IN ALBANIA

(Alternatives for connecting Albania to the regional gas grid)

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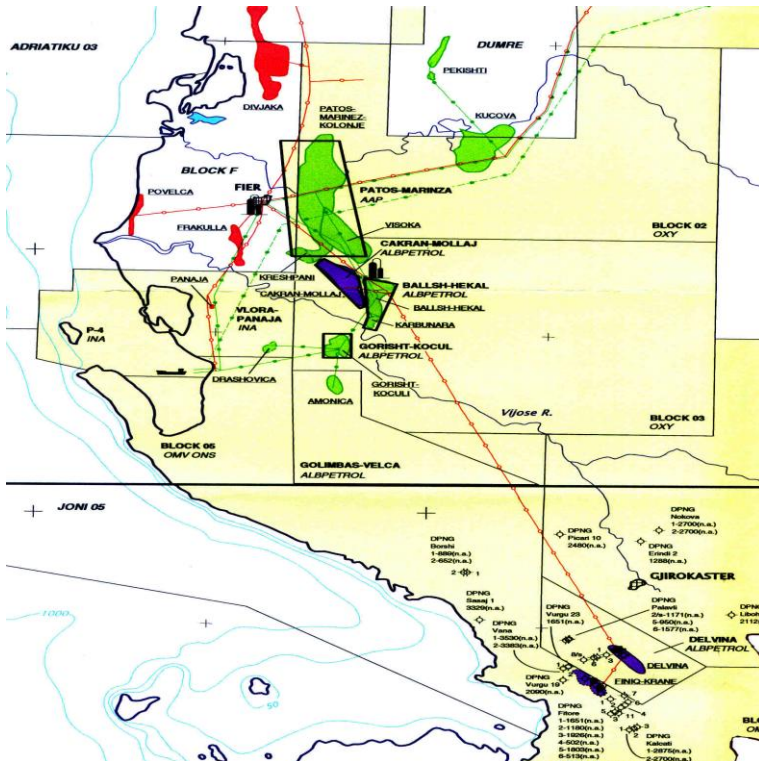
**ENERGY MARKET AND INFRASTRUCTURE TOWARDS INTEGRATION:
3rd EU Energy Package- Implications for the Albanian Energy Sector Development
29 October 2012
Hotel Sheraton, Tirana**

History and present situation of the Gas Sector in Albania

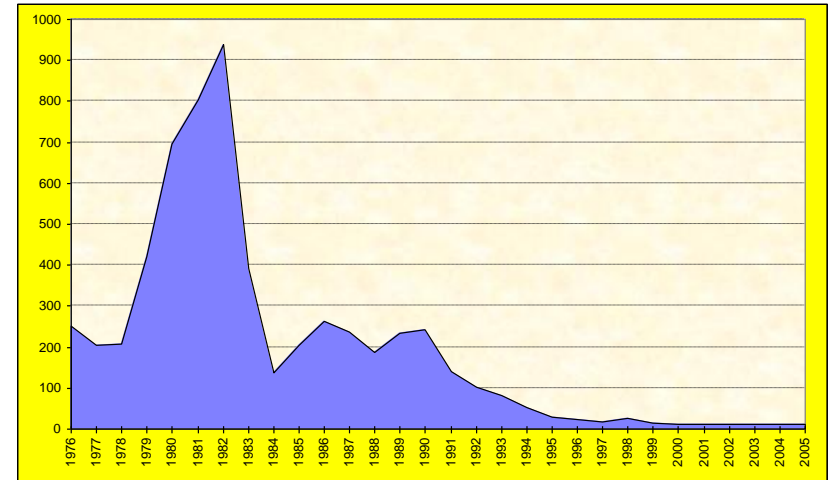
- **First natural gas discovery and production in Albania dates 1960.** Until the end of 2011 about 3.5 bcm of natural gas were extracted from our gas fields, and about 9.8 bcm of associated gas were extracted from our oilfields, both of them located in the south of Albania.
- **Gas has been mainly used by industry.** A total of 400 km pipelines supplied gas from gas fields to the main industrial consumers like TPP-s, fertilizer and steel plants, etc.
- **Gas production has drastically declined.** In 1990 production was about 0.25 bcm and further reduced to 0.012 bcm in 2011. As a consequence, important consumers rely or have shifted to other fuels like oil by-products.
- **Inherited gas infrastructure is practically out of use,** due to the very low level of gas availability and lack of maintenance.

History and present situation of the Gas Sector in Albania (2)

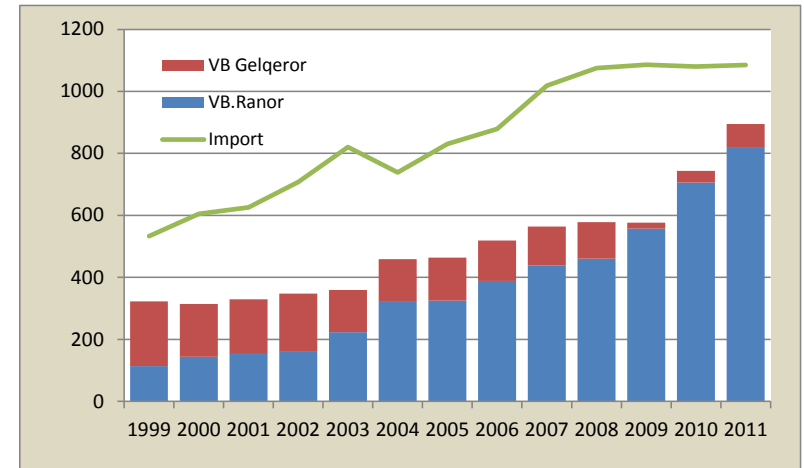
The existing gas field, oil fields and respective pipelines



Gas production in Albania 1980-2011 period. (million cubic meters)



Domestic production of crude oil in Albania in relation to consumption



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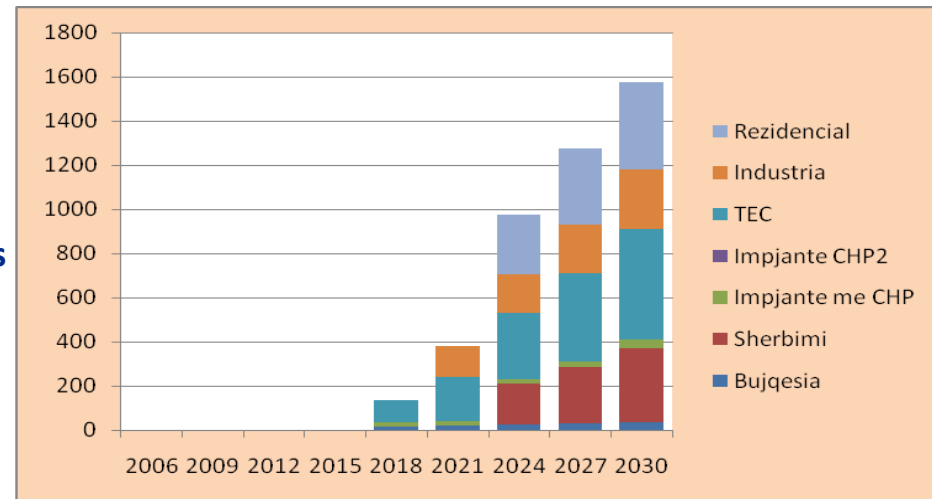
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Current developments

- ❑ The potential **demand** for natural gas in Albania is very high, while there is no gas available.
- ❑ Exhausted indigenous gas resources are no longer able to contribute in the national primary energy balance. **The current limited gas production** is used mainly for oil and refining operations by two oil companies ARMO and Albpetrol, to fulfill part of their own technological needs.
- ❑ **The GoA plan for the development of gas sector and market** in the country addresses several aspects including legal, regulatory and institutional related to the construction operation and regulation of the gas infrastructure and gas supply of the country.
- ❑ The **“National Strategy of Energy, (updated)”**, estimates the gas consumption by year 2030 to be at the level of **1.5 to 1.8 BCM/year**.
- ❑ The main consumers are expected to be:
 - **First priority**, power generation sector and industrial consumers,
 - **Second priority**, service sectors, which will use the natural gas for heating,
 - **Third priority**, householding sector for using of natural gas for cooking and hot water,.

Forecast of N-G Consumption by Sectors 2018-2030 (Ktoe)

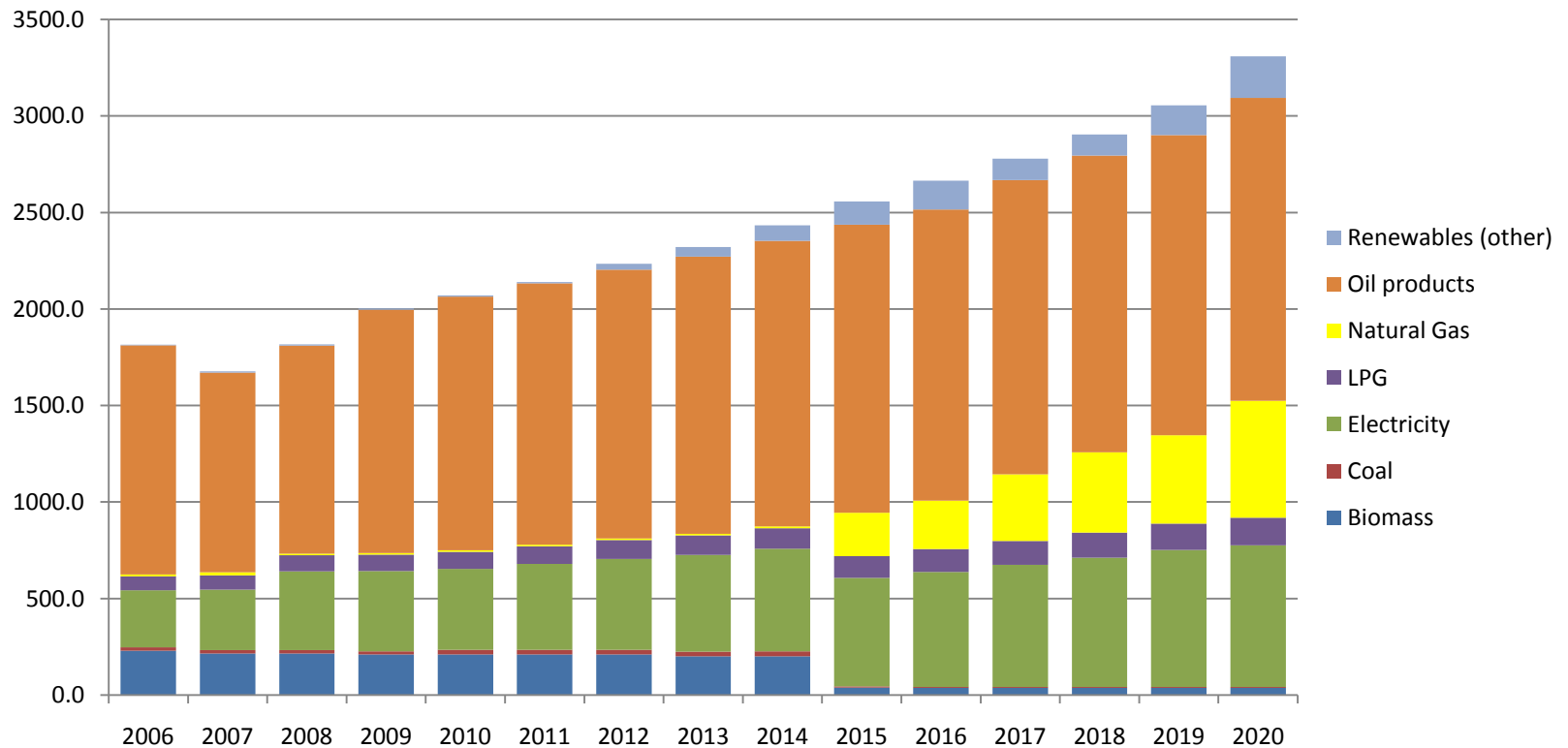
(SOURCE: ALBANIAN AGENCY FOR NATURAL RESOURCES DEVELOPMENT)



Expected Natural Gas Role in the Albanian Energy Balance

Energy Consumption by Commodities 2006-2020 (Ktoe)

SOURCE: ALBANIAN AGENCY FOR NATURAL RESOURCES DEVELOPMENT)



Energy Sector Developments

Albania, Contracting Party of the Energy Community

- Adoption of the “**Acqui Communautaire**” in the energy sector.

Important Reforms of the Energy sector;

- **Privatization** of the petroleum refining sector completed in 2008 (ARMO sh.a.) ,
- **Privatization** of the Electricity distribution sector completed in 2009 (CEZ Shperndarja sh.a.),
- **Privatization** of the exploration and production public company, Albpetrol sh.a., is on the final stage (Negotiation of the sales Contract with the tender winner the Consortium Vetro Energy PTE Ltd., SilkRoad Equity LLC & YPO Oil and Energy Ltd.),
- Clear time schedule and incentives for losses reduction (technical and non technical)
- Consolidation of a **Competitive** energy market
- **Diversification** of the energy sources.

Natural Gas demand assesment

Domestic Market Developments

- One combined cycle power generation plant of 97 MW convertible to NG and **expandable up to 300 MW** was completed near Vlora town in year 2009.
- Three Large capacity cement factories already functional in Albania.
 - **Proposed Project-Reconstruction of Fieri TPP (130 MW)**
 - **Proposed Project of Delvina TPP (60 MW)**
- LPG annual consumption in household and services nearly 100 000 tons/year
- Positive economic growth despite global crisis.



Main objectives for the Albanian Gas Sector;

- ❑ The Albanian Government is making strong efforts to prepare a **gasification plan** addressing the legal, regulatory and institutional frameworks required to develop the gas infrastructure.
- ❑ **Linking Albania** with the international gas network (Eurasia Gas Corridor and Energy Community Gas Ring)
- ❑ Preparation of the necessary **Albanian legislation for the gas sector** in compliance with European legal framework (Regulatory and Investment framework reliability)
- ❑ Development of **national gas resources**
- ❑ Restructuring the existing system for **gas transmission in Albania**
- ❑ **Use of natural gas as an alternative energy source** and for the production of electrical energy with gas fired thermal power stations
- ❑ Development of **LNG Terminals** and regional **underground gas storage (UGS)** reservoirs

IV. Legal and Institutional Framework

- In line with the objective to develop the natural gas sector and the fulfillment of the Energy Community Treaty obligations, **Albania continues the preparation of the necessary legal and institutional gas framework.**
- **The Law “On natural gas sector” (Law no. 9946, date 30.06.2008) , has been approved by the Albanian Parliament on 30 July 2008. It is fully in compliance with the EU Directive 2003/55/EC and Regulation 1775/2005/EC and represent the result of a lot of discussions with interested parties and international institutions, including Energy Community Treaty Secretariat.**
- **The new law takes into consideration only one Regulatory Authority for both sectors, electricity and gas (Regulatory Authority of Energy).**
- **It takes into consideration the existing legal framework for construction and operation of the gas infrastructure (Law no.8450, date 24.02.1999 “On refining, transportation and trading of oil, gas and their by-products).**
- **The new legal and institutional framework has created the necessary conditions and opportunities for investments in the Albanian gas sector.**

Legal and Institutional Framework

Roles in the Natural Gas Sector According to Gas Law;

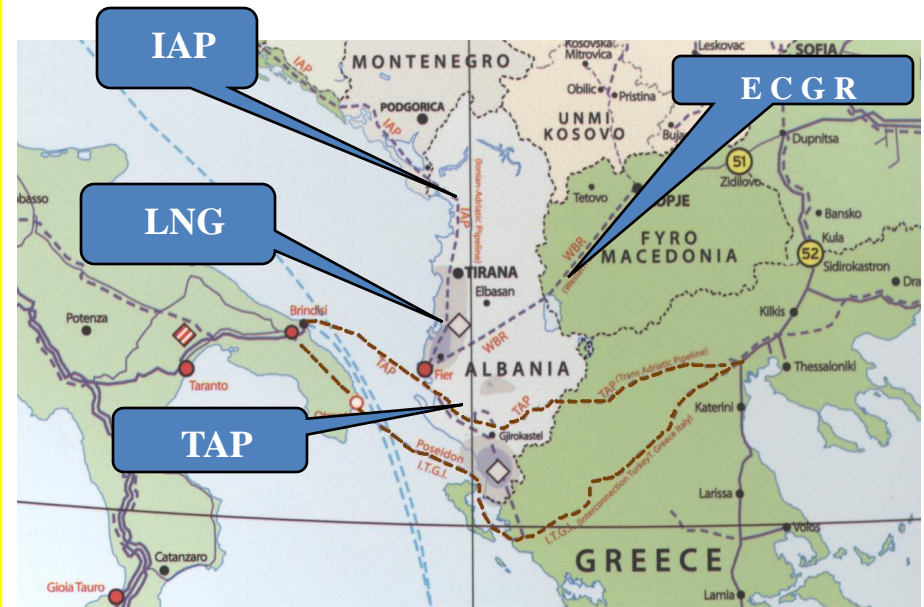
Ministry for Energy (METE) is the highest institution responsible to:

- develop Policies and plans for a sustainable development.
- approve new N-G Infrastructure
- prevent and manage crisis situation's.
- approve technical and safety rules

ERE (Albanian Energy Regulatory Entity) is responsible for the REGULATION of the N-G activities, (except for the activity of natural gas exploration and production -> Petroleum Law).

Supply Options for the Gasification of Albania & Western Balkans

- ❑ **Connection to the regional and/or international pipeline N-G networks.** (Albania is supporting and participation on the development of some regional gas projects, part of Southern Gas Corridor and Energy Community Gas Ring).
- ❑ **Eventual new gas discoveries.** (Albania is supporting the investments on the frame of Petroleum Agreements for hydrocarbon exploration in Albanian territory, including potential of shale gas development, as well. Actually are planning to drill 4 new wells, 3 by Petromanas Albania GmbH, and 1 by Bankers Petroleum Albania Ltd.).
- ❑ **Construction of an LNG plant on the Albanian coast.** (Albania is open for every gas project that can contribute on the diversification of gas supply of the country, including the proposal projects for constructing and operation of LNG regasification terminals)



ENERGY COMMUNITY GAS RING project

Along the EnC Gas Ring – concept proposed 2009



E.C.G.R.

IPA - WBIF

IBS

FS Annex finalised
FS on Bulgarian side started

IAP

FS & ESIA ongoing

LNG Krk + evacuation pipeline

FS & ESIA started

South BiH – Croatia

Team established

North BiH – Croatia

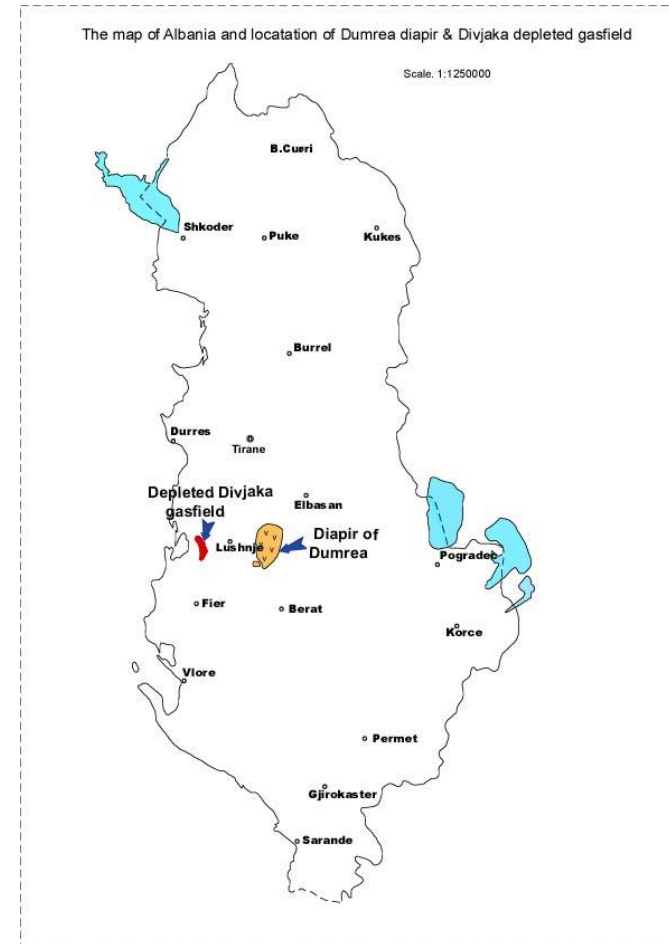
Team pending

fYR of Macedonia gasification

TA for ESIA approved

Underground Gas Storage potentials of Albania.

- ◆ Natural reservoirs constitute a very important element in gas transmission systems to cover peak demands and to balance the seasonal variations.
- ◆ Albania has several suitable sites for gas storage, including, a salt dome in Dumrea (up to 2 bcm) and the depleted Divjaka gas field (up to 1 bcm).
- ◆ Based on a preliminary feasibility study, presented on the 3rd Gas Forum in Ljubljana, the possible UGS at Dumre Salt Dome could have the cheapest cost for gas storage (76\$/Mcm)
- ◆ Is possible the cooperation between Albania and Greece for using of UGS In Dumrea Salt Dome.
- ◆ By connecting these gas storage into regional gas network (including Energy Community Ring), Albania could provide regional storage facilities for other Balkan countries.
- ◆ Therefore the design of underground gas deposits is a project of regional interest and with a particular importance for Albania.



TAP a priority project for Albania, the Western Balkan countries , Italy and EU:

TAP distinguished strengths;

- ❑ TAP crosses the Energy Community Contracting Parties and connect with IAP.
- ❑ TAP secures the highest level of Security of Supply because;
 - Has **large and expandable/flexible capacity** from 10 BCM/y to 20 BCM/y , to supply gas for the Western Balkans (Energy Community Gas Ring), Italy and wider.
 - TAP can take advantage from the potential **underground storage** in Albania
- ❑ Provides the **shortest** and the **most cost efficient link** for N-G pipes bringing Caspian and Middle East natural gas to EU markets via South Italy.
- ❑ Shareholders of TAP AG company; EGL-42.5%; Statoil – 42.5%, E-on Rhurgas 15% represent the **highest level of technical expertise and financial credibility.**

TAP Project situation ;

- ❑ The governments of Italy, Greece and Albania confirmed their political support for the TAP project with the **signing of a Memorandum of Understanding (MoU)** on 28 September 2012.
- ❑ TAP AG and Albanian Government are **negotiating the HGA** for TAP Project.

TAP a priority project for Albania, the Western Balkan countries , Italy and EU:



TAP is chosen by the Shah Deniz Consortium as the main gas project for transportation of the Azeri gas towards Italy and Western Europe.

- The TAP route will be approximately 800 kilometers in length.

(478 km in Greece, 204 km in Albania, 105 km under Adriatic Sea, 4 km in Italy).

- Deepest part offshore will be at 810 meters below sea level

- The TAP project is investigating the option of developing **gas storage facilities (UGS)** in the Dumre region in central Albania, using underground salt formations.



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Albania support for IAP projects.

Signature of **the Ministerial Declaration for the IAP Project**, Zagreb 25 September 2007. Joint Declaration of B&H, Tirana on 11.12.2008.

The IAP is foreseen to run from Croatia (Ploce) – to Albania (Fieri) with a diameter 800-1000 mm/ and a pressure of 75 bar with reversed flow capability from N-S; the IAP will be part of the gas ring, when this will be constructed.

The length of pipeline would be 516 kilometers (321 mi). The pipeline would be bi-directional and its capacity would be 5 billion cubic meters of natural gas per year.

Based on a financing of 3,5 M EURO on the frame of IPA - WIBF , the Feasibility Study (FS) and ESIA for IAP project are ongoing, starting from 2011.

Benefits of IAP:

- Creates the preconditions of gasification of Albania and Montenegro
- Facilities the gasification of South Croatia and a significant part of Bosnia and Herzegovina.
- Enables diversified supply
- Enables the access to Croatian and Albanian underground gas storage facilities.
- Enables the future interconnection with Greek and FYROM gas network.
- Enables significant transit and thereby income generation for Albania, Montenegro and Croatia.
- Revives the economy of the whole region.

TAP and IAP projects.

Albanian role in getting the Trans-Adriatic Pipeline (TAP Project) and Ionian-Adriatic Pipelines (IAP Project) onstream;



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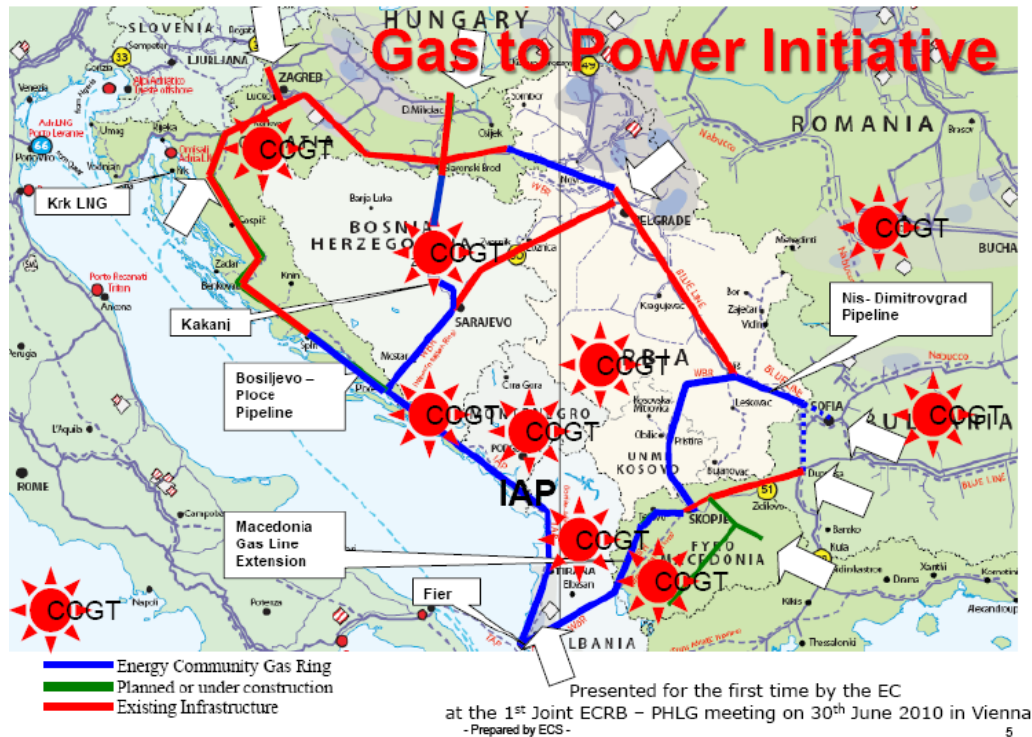
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Gas-to-Power Initiative of the Energy Community

- Within the second half of 2011, the **Gas-to-Power Initiative** was launched in the Energy Community.
- This initiative provided very concrete format for discussing **utilization of natural gas in the region both at national and regional levels.**
- **Interest in concrete involvement has been signaled by Albania, Montenegro, and Bosnia and Herzegovina.**
- **On 08 June 2012, METE in the cooperation with Energy Community Secretariat has organized in Tirana the Workshop on Gas-to-Power Initiative**



CONCLUSIONS

- ❑ **The integration of Albania with the European gas market** is a major objective of the GoA with particular focus on the preparation of the necessary legal and institutional framework of the gas sector in line with the provisions of the Energy Community Treaty and the relevant EU Directives is a key issue of our first phase.
- ❑ The Albanian Government is making strong efforts to prepare **a gasification plan** addressing the legal, regulatory and institutional frameworks required to develop the gas infrastructure.
- ❑ There are in place **a lot of prospects for the introduction of natural gas in Albania** and linking of the country with existing regional gas network and the future gas infrastructure of the Energy Community.
- ❑ **Supply of Albania with gas from Caspian Sea Region, Middle East and Russia** through regional gas projects that will be part of Energy Community Ring. TAP and IAP projects, is our main target in medium and long term.
- ❑ **Eventual new gas discoveries.** (Albania is supporting the investments on the frame of Petroleum Agreements for hydrocarbon exploration in Albanian territory, including potential of shale gas development, as well. **Actually are planning to drill 4 new wells**, 3 by Petromanas Albania GmbH, and 1 by Bankers Petroleum Albania Ltd.).

CONCLUSIONS

- TAP is a priority project for Albania, the Western Balkan countries, Italy and EU, providing the shortest and the most cost efficient link for N-G pipes.
- There are some proposal projects for gas to power :
 - Proposed Project- Reconstruction of Fieri TPP (130 MW)
 - Proposed Project of Delvina TPP (60 MW)
- Developing of the underground gas storage capacities and LNG terminals, in parallel with gas pipeline projects development, is another objective of Albania towards its gasification.
- **Neighboring and regional cooperation** is the most successful way to develop local and regional gas network and to establish an integrated gas market over South East Europe.
- **Supporting the gasification policy**, Albania expressed a strong will to participate in a coordinated development of new capacities of gas for electricity production on a regional level, through the so-called ***Gas to Power Initiative***.



Thank you !

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