Overview and Institutional Obligation of AKBN

Tokyo, August 27, 2008
• The National Agency of Natural Resources (AKBN), is a public institution constituted by the Decision of the Albanian Council of Ministers No.547, dt. 09.08.2006.

• The Agency deals with all petroleum, hydropower, mining activities and, by the Decision of Council of Ministers No.202, dt. 11.04.2007, takes also care of renewable sources of energy, energy efficiency and National Strategy of Energy.

• The Agency depends directly from the Minister of Economy, Trade and Energy.

• The Agency is the official and institutional adviser to the Albanian Government and other state institutions on mining, petroleum, hydropower and energy activities.

• The Agency is the Albanian institution that promotes all natural resources, objects of its own activities.
DEPARTMENTS

- MINING DEPARTMENT
- PETROLEUM DEPARTMENT
- HYDRO POWER DEPARTMENT
- RENEWABLE ENERGY DEPARTMENT
- COORDINATION DEPARTMENT
MINING DEPARTMENT

• Consults and collaborates with relevant government structures, on preparing policies related to mining sector;
• Applies the governmental policies in mining sector;
• Provides technical expertise, in respect of its own institutional obligations, on studies and projects concerning mining and post mining activities;
• Promotes Albanian mining resources.
• Supervises all mining exploitation licenses and asks for the correct fulfillment of the implementation of development programs;
• Supervises post mining activities.
Albania is a very rich country in mineral resources. Exploration, exploitation and processing of mineral ores, has a significant impact in the Albanian economy.

The process of restructuring in mining activity has passed through:

- The privatization process (from 1994 on);
- The restructuring of state enterprises on chromium and copper sector (1994-1998);
- The building of a new legal framework based on the rules of market economy (Albanian Mining Law 1994);
- The concession on the assets of mining industry (1995);
- The closure of non-effective mines and the conservation of the potential mines (from 1993 on).
LEGAL FRAMEWORK

• The mining activity is performed in accordance with the requirements of “the Mining Law of Albania” No.7796, dt. 17.02.1994, amended by Law No.9261, dt. 22.07.2004 and Law No.9667, dt. 29.12.2007.

• The use of any kind of explosive material during the mining activity, is performed in accordance with the requirements of Law No.9126, dt. 29.07.2003 “For civil using of explosives in the Republic of Albania”, the Decision of Council of Ministers No.52, dt. 29.01.2004 and the Order No.1, dt. 12.02.2004 of the Minister of Economy, Trade and Energy.

• Any kind of mining activity related to engineering, assessment, consulting, monitoring, technical supervision etc. is conducted through a Professional Permit.
PETROLEUM DEPARTMENT

• Assists the Albanian government, in collaboration with other institutions, in drafting policies in petroleum sector;

• Negotiates all Petroleum Agreements on behalf of the Albanian Government;

• Supervises the Petroleum Operations;

• Manages the Petroleum Data;

• Promotes free areas for exploration, development and production of petroleum.
ATTRACTION OF FOREIGN INVESTMENTS IN PETROLEUM ACTIVITIES THROUGH:

- Opening policies on oil and gas industry, in order to facilitate free competition and market liberalization;
- Flexible and fast licensing procedures.
The legal framework for petroleum exploration and production in Albania is governed by three principal laws:

- The law “On petroleum (exploration and production)”;
- The law “On the fiscal system on petroleum sector”
- The law “On national taxes”.

Specificities of petroleum legislation:

- Deals with technical and general issues;
- Deals with fiscal issues;
- Is simple;
- Is clear;
- Offers flexibility.
A SHORT HISTORY OF PETROLEUM EXPLORATION AND PRODUCTION IN ALBANIA

- Bitumen production since ancient Romanian times;
- 1806-1913, field mapping, stratigraphic and tectonic studies and geological surveys carried out by foreign geologists;
- 1918, the first well was drilled with positive results. Drashovica oilfield was discovered;
- 1918-1940, intensive petroleum operations by foreign companies and some discoveries;
- 1944-1990, continuation of petroleum operations and other discoveries.
The first Petroleum Concessions granted by Albanian Government in 1925
LICENSING ROUNDS ORGANIZED AFTER 1990

Offshore Licensing Round

First Onshore Licensing Round

Second Onshore Licensing Round
The current licensing situation for petroleum exploration in Albania on February 1st, 2008:

- Block Durres (Offshore) awarded in 2004. Contractor and operator *Island International Exploration BV*;
- Block Joni 5 (Offshore) awarded in 2007. Contractor and operator *Capricorn Albania Limited*;
- Blocks A and B (Onshore) awarded in 2007. Contractor and operator *DWM Petroleum AG*;
- Blocks D and E (Onshore) awarded in 2007. Contractor and operator *DWM Petroleum AG*. 
Licence-Agreement for Patos- Marinza oilfield issued in 2004. Contractor Bankers Petroleum;

Licence-Agreement for Ballsh-Hekal oilfield issued in 2007. Contractor Stream Oil & Gas;

Licence-Agreement for Cakran-Mollaj oilfield issued in 2007. Contractor Stream Oil & Gas;

Licence-Agreement for Gorisht-Kocul oilfield issued in 2007. Contractor Stream Oil & Gas;

Licence-Agreement for Delvina oil& gas field and Delvina exploration block issued in 2007. Contractor Stream Oil & Gas;

LICENSING PROCEDURES ON PETROLEUM EXPLORATION IN FREE AREAS

- Evaluation of the available data;
- Presentation of an application for:
  - Reconnaissance Permit, or
  - Petroleum Agreement.
- Approval of the applicant;
- Negotiation of the main terms and conditions of the Petroleum Agreement;
- Approval of the main terms and conditions of the Petroleum Agreement;
- Negotiation of the Petroleum Agreement;
- Signature of the Petroleum Agreement;
- Approval of the Petroleum Agreement.
REQUIREMENTS FOR AN APPLICATION RELATED TO A PETROLEUM AGREEMENT

- Information concerning the applicant;
- The definition of application area;
- The proposal for the main terms and conditions of the Petroleum Agreement. Such proposal should provide:
  - The division of the exploration period in subperiods;
  - The terms of the exploration subperiods;
  - The minimal work program related to each exploration subperiod;
  - The minimal financial obligation for each exploration subperiod;
  - The cost recovery;
  - The profit sharing;
  - The bonuses, training and administration funds and other issues.
### SOME DATA ON OIL PRODUCTION IN ALBANIA IN 2002-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil production in Albania (ton)</th>
<th>Export sales deliveries of crude oil (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>From limestone deposits</td>
</tr>
<tr>
<td>2002</td>
<td>369 000</td>
<td>137 000</td>
</tr>
<tr>
<td>2003</td>
<td>410 000</td>
<td>136 300</td>
</tr>
<tr>
<td>2004</td>
<td>444 000</td>
<td>158 300</td>
</tr>
<tr>
<td>2005</td>
<td>434 000</td>
<td>127 000</td>
</tr>
<tr>
<td>2006</td>
<td>474 000</td>
<td>119 000</td>
</tr>
<tr>
<td>2007</td>
<td>562 000</td>
<td>120 000</td>
</tr>
</tbody>
</table>
HYDRO POWER DEPARTMENT

• Consults and collaborates with relevant government structures, on preparing policies related to hydro power sector;

• Applies the governmental policies in hydro power sector;

• Provides the technical expertise, in respect with its own institutional obligations, on studies and projects in hydro power sector;

• Supervises hydro power activity;

• Monitors concessionary contracts on hydro power plants.
The hydrographic territory of Albania has a surface of 44,000 km² or 57% more than the Albanian geographic territory.

The average height of the hydrographic territory of Albania is about 700 m above sea level.

The average perennial inflow of all Albanian rivers is about 1,245 m³/s.

All rivers convey to the sea about 40 billion cubic meter/year of water.
During the time period from 1945 until 1951, it was produced (in average) 10 KWH per resident.

In 1952, started to operate the Hydro Power Plant in Selita, with an installed power of 5 MW.

In January 1958, entered into operation the HPP in Ulza, with an installed power of 25 MW.

In 1970, entered into operation three HPPs: Shkopeti, Bistrica I and Bistrica II, with an all together installed power of 51.5 MW.

In the time period 1971-1978, started to operate two HPPs; in Vau i Dejes and Fierza, 750 MW both.

In 1985 entered into operation the HPP in Koman, 600 MW.
THE HYDRO ENERGETIC POTENTIAL OF ALBANIA

- Only 35% of the Albanian hydro energetic potential is so far utilized.
  - The total national capabilities are about 4,500 MW
  - The respective annual generation would be around 18 TWh
  - The installed capacity is around 1,455 MW
  - The average generation is around 5,267 GWh
# MAIN HYDRO POWER PLANTS (HPP) IN ALBANIA

<table>
<thead>
<tr>
<th>No.</th>
<th>Nomination of HPP</th>
<th>Installed capacity (KW)</th>
<th>Annual generation (kwh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ulza HPP (Mat)</td>
<td>25 000</td>
<td>120 000 000</td>
</tr>
<tr>
<td>2.</td>
<td>Shkopeti HPP (Mat)</td>
<td>24 000</td>
<td>94 000 000</td>
</tr>
<tr>
<td>3.</td>
<td>Bistrica I HPP (Saranda)</td>
<td>22 500</td>
<td>100 000 000</td>
</tr>
<tr>
<td>4.</td>
<td>Vau Dejes HPP (Shkodra)</td>
<td>250 000</td>
<td>1 000 000 000</td>
</tr>
<tr>
<td>5.</td>
<td>Fierza HPP (Tropoja)</td>
<td>500 000</td>
<td>1 800 000 000</td>
</tr>
<tr>
<td>6.</td>
<td>Komani HPP (Puke)</td>
<td>600 000</td>
<td>2 000 000 000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1 421 500</td>
<td>5 114 000 000</td>
</tr>
</tbody>
</table>
### POWER POTENTIAL IN RIVERS UTILIZATION

<table>
<thead>
<tr>
<th>River</th>
<th>Total resources (MW)</th>
<th>Power potential (10^6) kwh</th>
<th>Installed capacity (MW)</th>
<th>Power generation (10^6) kwh</th>
<th>Potential for utilization (MW)</th>
<th>Potential for generation (10^6) kwh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drini</td>
<td>1,780</td>
<td>6,750</td>
<td>1,350</td>
<td>4,900</td>
<td>430</td>
<td>1,850</td>
</tr>
<tr>
<td>Vjosa</td>
<td>387</td>
<td>1,949</td>
<td>0</td>
<td>0</td>
<td>387</td>
<td>1,949</td>
</tr>
<tr>
<td>Devoll</td>
<td>246</td>
<td>1,301</td>
<td>0</td>
<td>0</td>
<td>246</td>
<td>1,301</td>
</tr>
<tr>
<td>Osum</td>
<td>124</td>
<td>613</td>
<td>0</td>
<td>0</td>
<td>124</td>
<td>613</td>
</tr>
<tr>
<td>Mat</td>
<td>112</td>
<td>596</td>
<td>49</td>
<td>214</td>
<td>63,4</td>
<td>382</td>
</tr>
</tbody>
</table>
BIG SCALE HYDRO POWER PLANTS

Hydro Power Plant of Ulza

Hydro Power Plant of Shkopeti

Hydro Power Plant of Bistrica I

Hydro Power Plant of Bistrica II
Hydro Power Plant of Vau Dejes

Hydro Power Plant of Fierza

Hydro Power Plant of Koman

Hydro Power Plant of Fierza
SMALL HYDRO POWER PLANTS (up to 15MW)

There are, in Albania, 89 small hydro power plants:

- 82 have an installed capacity from 10 KW up to 1MW
- 7 others have an installed capacity from 1MW up
- 32 of them, with an installed capacity of 24.4 MW, are under concession;
- 16 are privatized, with 2MW installed capacity;
- 41 are property of state, with 12.5 MW installed capacity.

From all 89 small power plants, only 36 are in operation.
ACTUALLY ADMINISTRATIVE STATUS OF HYDRO POWER PLANTS

- 46% With concession
- 36% Private
- 18% State
Actual status of hydro power plants in Albania

Concession
- 81% working
- 19% out of working

State property
- 95% working
- 5% out of working

Private
- 44% working
- 56% out of working
LEGAL FRAMEWORK

- Law No. 9663 dt. 18.12.2006 “On concessions”;
- Decision of Council of Ministers No.150 dt. 22.03.2007 “For the organization and function of Concession’s Treating Agency”;
- Order of the Minister of Economy, Trade and Energy No.536, dt. 27.07.2007 “Regulation for the administration of documents and requests related to concessionary agreements” and “Bonus evaluation criteria”;
- Law No.8987, dt. 24.12.2002 “On facilitating conditions establishment related to new power generation resources construction”;
- Law No.7970, dt. 20.07.1995 “On the arrangement of electricity sector”, changed with Law No.9072, dt. 22.05.2003, changed recently with the Law No. 9913, dt. 05.05.2008 “For some adding and changes in Law No. 9072 …”;
- Law No.7764, dt. 2.11.1993 “On foreign investments”;
- Law No.8093, dt. 21.03.1996 “On water reserves”.
RENEWABLE ENERGY DEPARTMENT

- Consults, advises and collaborates with all relevant governmental institutions, on policies related to renewable energy sources, energy efficiency, aiming the improvement of the Albanian National Strategy of Energy;
- Promotes the different initiatives and investments in renewable energy sources;
- Proposes different energy efficiency measures and implementation programmes in all the Albanian economy sectors;
- Compiles and publishes the Annual Energy Balance at national level, based on energy database and statistics.
THE MAIN ISSUES DEALING WITH:

• The energy planning in both supply and demand side with less environmental impacts, increasing the security of supply, etc.;

• The National Strategy of Energy based on:
  – The Albanian liberalization of the power sector and its integration within regional electricity market;
  – The promotion of renewable energy sources and energy efficiency policies,
  – The forecast related to the electricity tariffs,
  – The harmonization of the Albanian legal framework with EU Standards.

• The preparation of the Albanian Energy Balance.
ENERGY PLANNING

Energy supply from:
- Hydro Power Plants,
- Thermo Power Plants,
- Technologies of renewable energy
- Import

Energy demand from:
- Industry,
- Residential,
- Transport,
- Services,
- Agriculture.
RENEWABLE ENERGY SOURCES

Albania, based on its geographic position, has favorable conditions for renewable energy exploitation:

- Hydro
- Solar
- Wind
- Biomass
- Geothermal

SOLAR ENERGY

- Solar Energy has been introduced in Albania for domestic hot water.
- Albania has an potential of approximately 240-260 sunny days/year. The solar radiation is from 1200 to 1600 kWh/m²/year.
Territory distribution of annually sunny hours

Average daily solar radiation
WIND ENERGY

It is a possibility for electricity generation. There are identified some attractive areas which need for more measurements, in order to define their real potential.

The average wind velocity (m/s) Territory distribution of annually windy hours
BIOMASS

There are some opportunities to use:

• Wood and bush,
• Agriculture residues,
• Livestock residues,
• Urban residues.

Wood is already in use for heat purposes in the rural areas.

GEOTHERMAL ENERGY

There are some geothermal sources in our country estimated at low thermal potential (max. temp. 20-33°C).
LEGAL ENERGY FRAMEWORK

- Power Sector Law [No.9072, 22.05.2003];
- Energy Efficiency Law [No.9379, 28.04.2005];
- Energy Saving in Buildings [Law No.8937, 12.09.2002];
- Law on the Privatization of Local Hydro Power Plants [No. 8527, 1999];
- Concession Law [No.9663, 18.12.2006];
- Foreign Investment Law [No.7764, 2.11.1993];

- Still in process draft of Renewable Energy Law
COORDINATION DEPARTMENT

- Coordinates the administrative and economical problems between the Agency’s Departments, offering a specialized support and aiming the harmonization of all structures of the Agency as a solid administrative body;
- Plans and controls the realization of the economical and financial requirements, aiming the effective use of financial sources and the good administration of the monetary values and all assets of the Agency;
- Organizes and coordinates the work with other departments of the Agency and thirds, in order to better promote all the Albanian natural resources;
- Publishes and updates the Agency’s activities in its own website, enabling investments from domestic and foreign companies;
- Assists the Chairman of the Agency and its structures, in making possible the fulfilment in time of all administrative obligations.
THANK YOU FOR YOUR ATTENTION

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