ENERGY DEVELOPMENT GROUP

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COMPANY PRESENTATION

ABOUT US

ENERGY DEVELOPMENT GROUP SH.A. is an Albanian Joint Stock Company, established in accordance with Albanian law, since 2008, with its headquarters at Tirana, Albania, managed by its president Mr. Sokol Meqemeja.

Studying, projecting, consulting services, undertaking and implementation of construction works, investments development through private and/or public funds related to hydro-energy area, natural gas, hydrocarbon, labor induction, administration, management, production, sale of energy, construction of power lines.

Member of CEEC-Continental Europe Energy Council

15
Years of Experience

Member of American Chamber of Commerce…

15+
Completed Projects

www.edg.al

€ 200 mln +
Investments

OUR ACTIVITY

Exploiting the biggest natural energy resource in Albania with environmentally friendly technologies by keeping a continuous sustainable development.

Giving contribute to improvement of the national electrical network by ensuring reliable and safe grid connection point to renewable energy resources.

Developing and managing the existing natural gas fields in onshore Albania with latest technology and know-how is a key objective to bring the necessary resources to the consumers.

Unlocking the hydrocarbon exploration potential in onshore Albania will be supported by integrating the legacy geological and geophysical data and using advanced technologies to search, drill and produce the hydrocarbons.

OUR PROJECTS

BLUE ENERGY

Invests systematically in renewable energy using hydro resources, by offering a quality and efficient management, modern technology and facilities, coupled with continuous improvement of our energy structure, ensuring continued environmental protection.

SUSTAINABLE ENERGY

Living in a world where we are running short of energy resources, it is essential to use sustainable technology that lasts and is ecological. Protecting our ecosystem is a part of our business philosophy.

BLUE ENERGY

PROJECT CERRUJA

PROJECT DIKANC

PROJECT POBREG

PROJECT KACNIA

PROJECT DRAGOSTUNJA

PROJECT ELECTRICAL SUBSTATION

PROJECT CERRUJA

This project is located in Klos-Mat Region and will be realized by building 4 SHPPs over Bejni torrent, named:

2.3 MW (in operation since Jan 2014)
Main technical data
"Cerruja 1"
Gross head 268 m
Net head 261 m
Design flow1.0 m³/sec
Type of turbine: Pelton (one unit)
Capacity of turbine P= 2300 kW
Approximate production ~7 GWh/yr.

2.8 MW (in operation since Jan 2014)
Main technical data
"Cerruja 2"
Gross head 327 m
Net head 321 m
Design flow 1.0 m³/sec
Type of turbine: Pelton (one unit)
Capacity of turbines P = 2800 kW
Approximate production ~9 GWh/yr.

3.6 MW (in operation since May 2013)
Main technical data
"Cerruja 2"
Gross head 327 m
Net head 321 m
Design flow 1.0 m³/sec
Type of turbine: Pelton (one unit)
Capacity of turbines P = 2800 kW
Approximate production ~9 GWh/yr.

3.6 MW (Under development)

PROJECT CERRUJA

Cerruja 1 Powerhouse:

Cerruja 2 Powerhouse:

Rrypa Powerhouse:

PROJECT DIKANC

The ENERGY DEVELOPMENT GROUP is currently involved in its first project, the one of Dikanc, Kosovo, for the rehabilitation and upgrade of the Dikanc HPP throughout the Concession Contract signed on September 2009 with Kosovo Energy Corporation J.S.C. The small hydropower plant of Dikanc is located near Dikanc village in Prizren district.

Main data of the project:
Total installed capacity :
The existing Francis turbines:
nominal power: 2 X 0.750 MW = 1.5 MW
The new turbine: Francis, with nominal power: 2.6 MW
The total of the installed capacity: 4.1 MW
The average annual production - forecast: 13.02 GWh
The production of the new turbine: 10.36 GWh
The production of the existing ones: 2.66 GWh

The phases of the project development:
1. Rehabilitation phase: October 2009 – April 2010

- The hydraulic structures rehabilitation.
- The powerhouse rehabilitation.
- The E&M equipment rehabilitation.

2. The capacity upgrade: April 2010 – October 2011

- Building of the new hydraulic structures;
- Upgrade of the powerhouse;
- The placement of the new Francis turbines and other E&M equipment's.

Main Technical data:
Gross head 121.00 m
Net head 118.61 m
The maximal flow 4.5 m³/sec
Type of the turbines: Francis Horizontal
The maximal capacity of the turbines = 4.1 MW
Type of generators: Sinkron
Average annual production 13.02 Mil KWh/annum

PROJECT DIKANC

The Francis Turbine

PROJECT POBREG

Pobreg project is the second project where Energy Development Group has been involved. This project has the largest installed capacity and is located on the last part of Luma river just before the river joins Fierza lake. This is to be considered an urban power plant since it is located just 1.5 km from the city of Kukes, in North Albania. The civil works have started on April 2010 and has become operational since June 2013.

General energetic characteristics:
Total installed capacity 12.3 MW
Turbine nr.1 Francis, nominal installed power 8.5 MW
Turbine nr.2, Francis nominal installed power 3.8 MW
Average energy production year: ~45-50,0 GWh

Technical general characteristics:

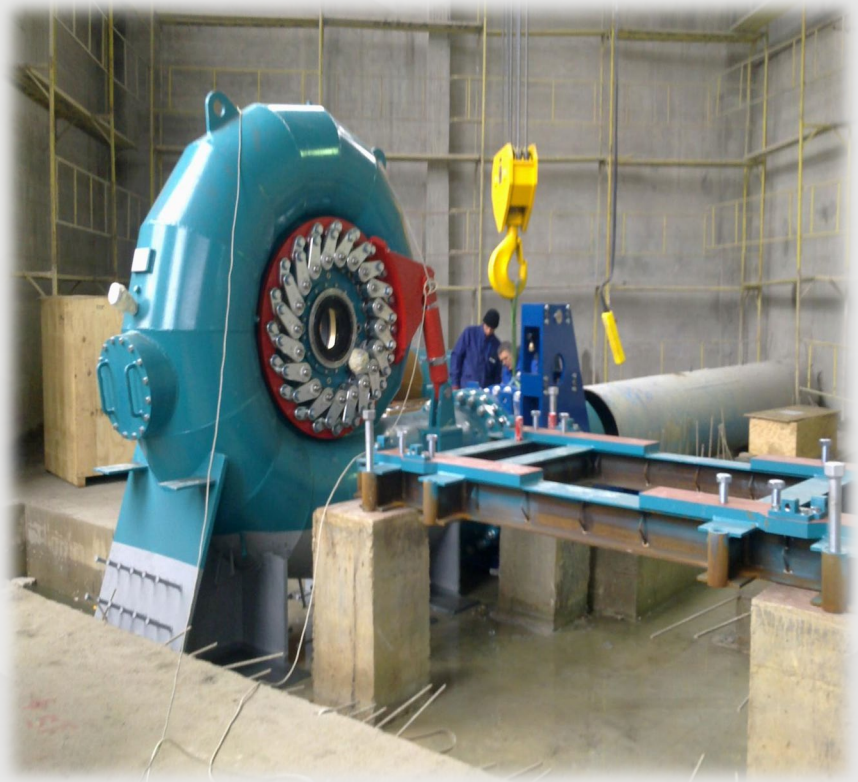
Intake:	Lateral
Derivation:	5.2 km (2.2 tunnel)
Gross head:	96.0 m
Net head:	92.88 m
Design flow:	14.0 m³/sec
Turbine type:	Francis horizontal - Gugler

Generator type: Synchronous - Gamesa

The forebay of this plant has dual functionality. The reserve of water before entering the penstock but it helps also on the decanting process. Since the water mostly flows on an open channel probably sediments may access the clean water.
Actually, the project of the power plant Pobreg has been successfully finalized at the beginning of June 2013. The electrical-mechanical units have been tested and controlled from the national state authorities.
The power generated from this power plant will access to the national grid from the Kukes substation by the 10 kV line. The power line has been new constructed, and it is an underground line.

PROJECT POBREG

Power-house and turbines installation



PROJECT KACNIA

Our Company has started the civil works for the project of constructing the Hydro Power Plant of Kacni, at the beginning of the May 2013, at the site located in Kacni village, near Diber district.
Actually, the company has contacted the group of topography specialist. The Topographic Survey of the area around which are going to be located the main works, such as Intake, Fore bay, Decanter, Pipeline and the HPP Building, is still in process of preparation.
Approximately the installed power can reach 4.4 MW. Such power will be generated by the installation of two already purchased Pelton Turbines inside the HPP powerhouse.

General data of the project:
The location of Kacnia SHPP is in the North-East of Albania:
The quotas that shall be used for energy production: starting from 1314 m.a.s.l down to 900 m.a.s.l. near to Kacnia village
The flow that shall be exploited: starting from 1.25 m3/sec, 625 liter/sec
for each of the pelton units.
Total of installed capacity: approximately 4.4 [MW]
Annual energy to be generated (forecast): approximately 13-14 [GWh]
The penstock length will 2300 m of steel with DN 700 mm

Electrical data of the project:
Kacnia SHPP will be connected by 20 kV OHL down to Kacnia SST.
Line voltage – 20KV (up to 20/35kV SST)
Length of the OHL– 4.5km.
Substation 10/20/35 kV under construction
The SST is installed inside the shelter.

Main technical data
"Kacnia"
Gross head 405 m
Net head 397 m
The design flow 1.25 m³/sec
Type of turbines: Pelton
Capacity of turbines Max = 2 X 2.2MW
Type of generators: Synchronous
Approx. annual production 16-17 GWh/yr.

PROJECT KACNIA

Kacnia powerhouse instalments

PROJECT DRAGOSTUNJA

Dragostunja SHPP

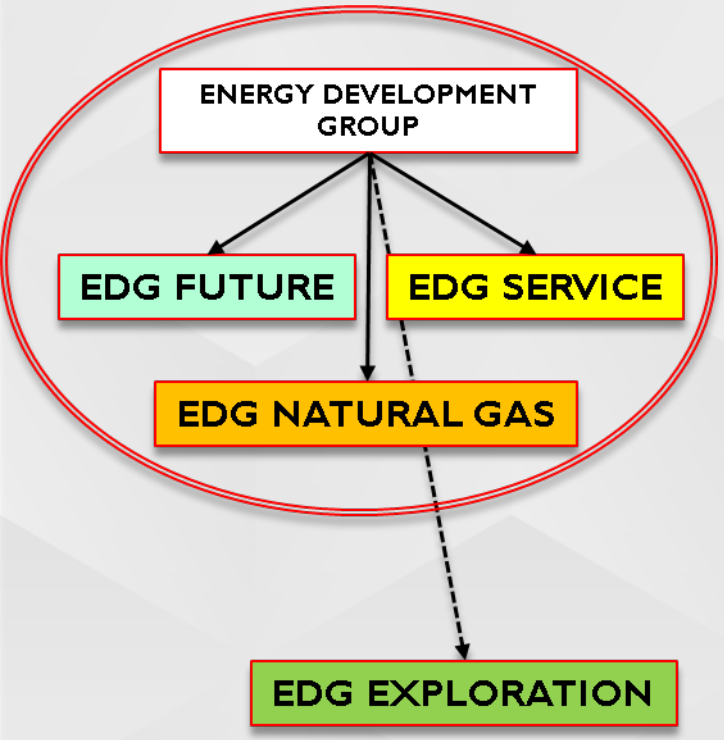
This project is located in central Albania near Librazhd city. The project consists on building of 3 SHPP in cascade within a total installed capacity up to 9.6 MW. The quotas of these projects will range from 1200 m above sea level down to 400 m, near to the national road Elbasan – Pogradec. This project will be extended in an area of 10.5 km. The survey and access track has been opened for 10.5 km until now and the track is completely accessible by small trucks. Recently are in process the works for opening of the track where the pressure pipe is going to be installed.

PROJECT ELECTRICAL SUBSTATION

- The energy generated from this cascade will join the national grid. The grid access is realized by the new built 35/110kV substation which is currently operative.
The company has constructed the Substation 35/110 KV, Klos, Mat in order to make it possible for the entire project, compound by 5 SHPP s to connect more efficiently to the national grid and transmission distribution system.

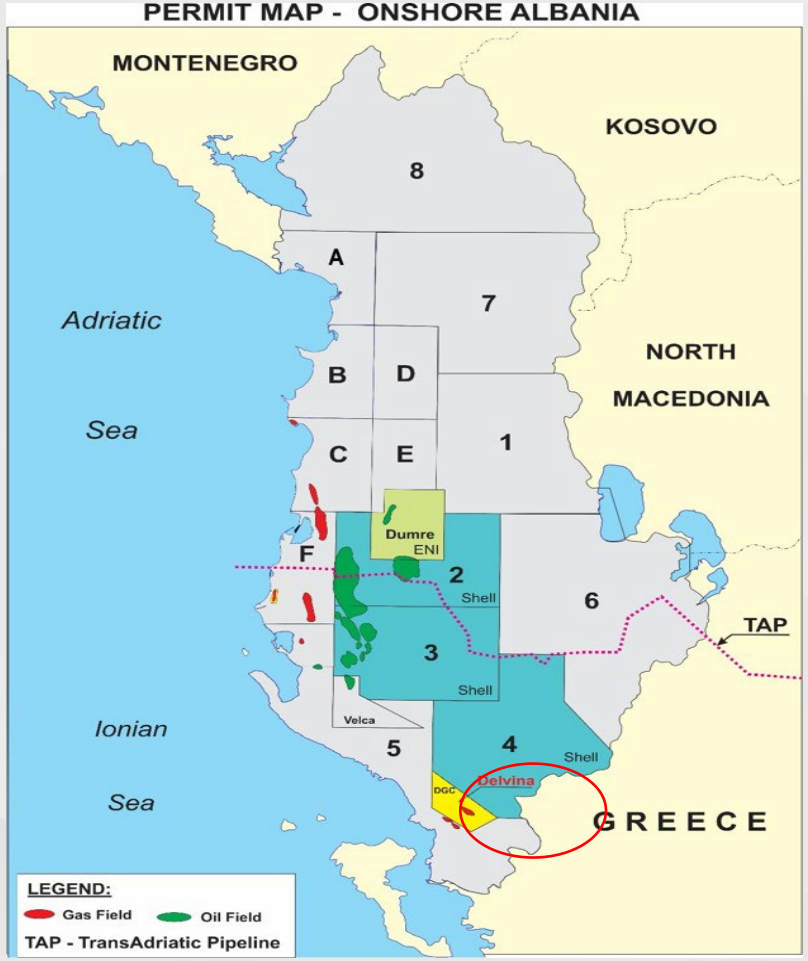
SUSTAINABLE ENERGY

Company structure for gas assets



- EDG FUTURE
  - Delvina Gas-condensate field
- EDG Natural Gas
  - Frakulla field
  - Povelca field

DELVINA FIELD

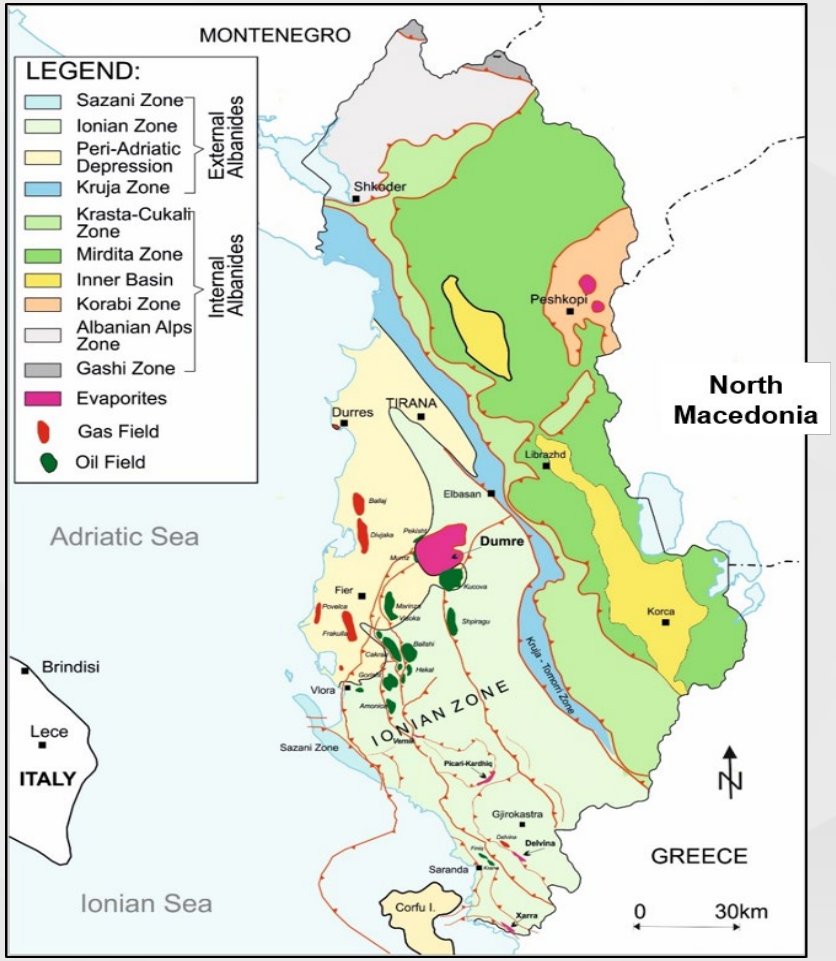


Permit Map of Onshore Albania and Delvina Block

In October 2020, the Energy Development Group (EDG) has joined forces with an upstream service company to invest in the Delvina gas condensate field. The group provides technical expertise, drilling services and capital to develop the field and to market its products.
Today, EDG controls the majority of interests in this field.

The onshore 'Delvina Field' lies in southern Albania, near Delvina town and close to Greek border. The field is discovered by DPNG (former Albpetrol) in mid-80's and has produced intermittently up to 2012, when the field became idle, due to lack of investments and lack of marketing options for the natural gas.

Since then, despite the involvement from several private enterprises to follow up with development, there was no particular commercial success.



Tectonic Map of Albania and Delvina field as part a prolific trend within the Ionian Zone

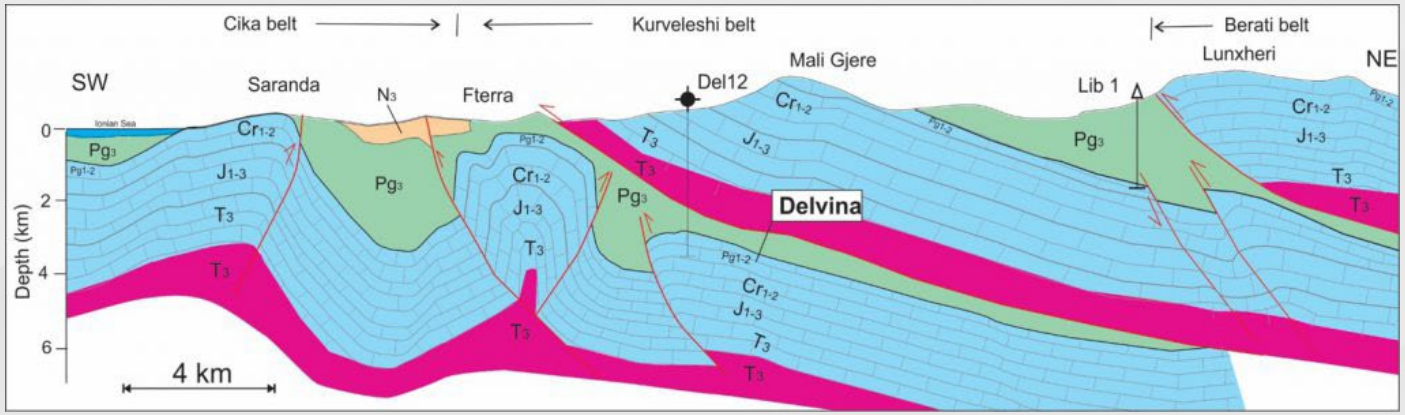
DELVINA FIELD

Delvina gas condensate is the first ever carbonate sub-thrust play type found in the Ionian Zone of Albania. Only four wells have reached the carbonate reservoir, but only two of them have been producing small amounts of gas-condensate.

EDG's technical evaluation outlines a path to develop this field combining a gradual data acquisition and the deployment of drilling and completion technology. To untap the remaining potential, EDG is working over existing wellbores to properly access and test the formation, before designing high volume highly deviated wells, targeting the most prolific intervals of the Upper Cretaceous formation, which has previously produced indicating a significant potential.

The actual field operations are including workover jobs; new completion; multi-stage stimulation and preparation for commercialization of the gas and condensate. The ongoing testing of D12 well are very promising, with flow rates more than **280.000(two hundred eighty thousand) m^3 gas/day**.

The estimated recoverable gas and condenate resources are: **425 bcf** of gas; **8.5 MMbbl** of condensate.



Delvina field reservoir is a sub thrust carbonate play, the first ever discovered in Albania.

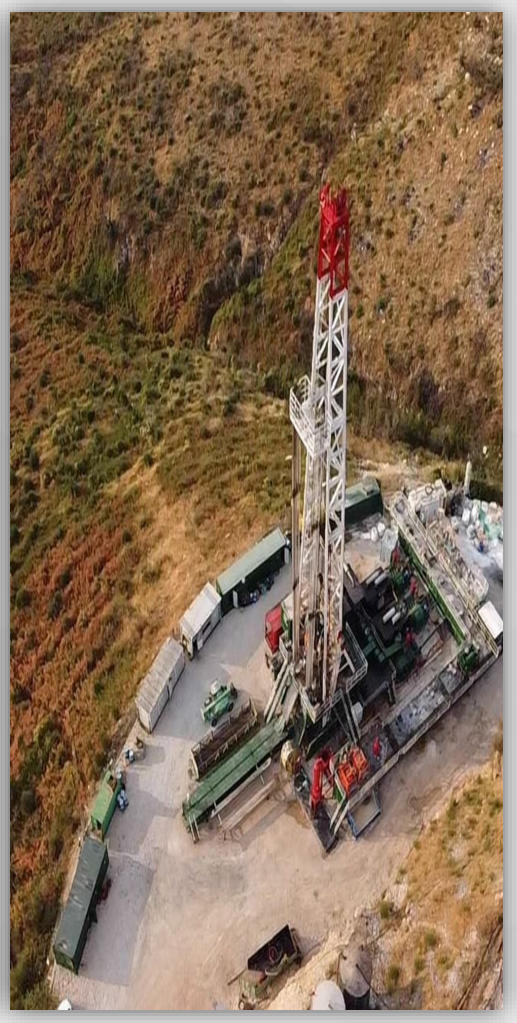
DELVINA FIELD - OPERATIONS

Field Operations 2021 – 2022

- Workover operations took place in D12, D10, D34 and D4 wells.
- Complete sidetrack drilling at D12.
- New completion and multi-stage stimulation at D12.

Field Operations 2023 – Forecast

- Complete multi-stage stimulation at D10, D4
- Complete the surface facilities for each well
- Get ready the de-sulphuration unit.
- Install the CNG facilities.
- Start commercialization of gas and condensate.
- First modern new well to start in Q1, 2024



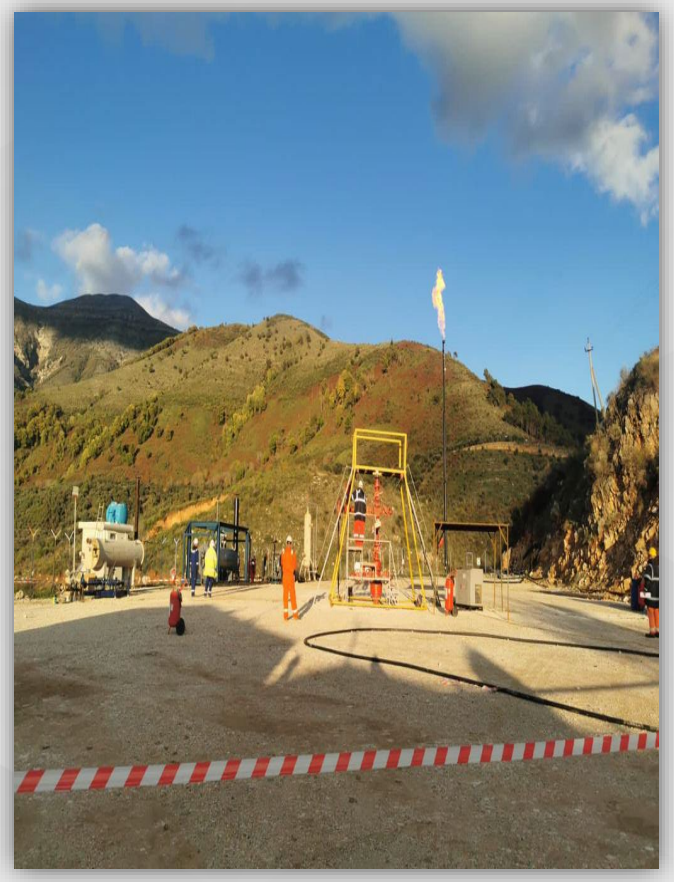
DELVINA FIELD – PHASE I DEV

- Testing results (Feb. 2023) at D12ST very encouraging.
- Sour Gas Plant under refurbishment / construction (**360,000 m3/d**).
- Gas-to-Power turbines **15 MW,** under construction.
- CNG technology is under construction for processing up to **120.000(one hundred twenty thousand) m³ gas/day.**
- Modular LNG gas plant (**160 TPD**) under discussion.

DELVINA FIELD

Sour Gas Plant at D10 site

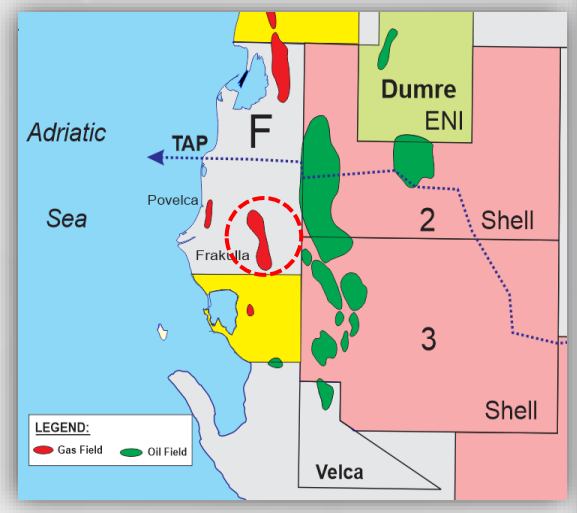
DELVINA FIELD – D 12 WELL

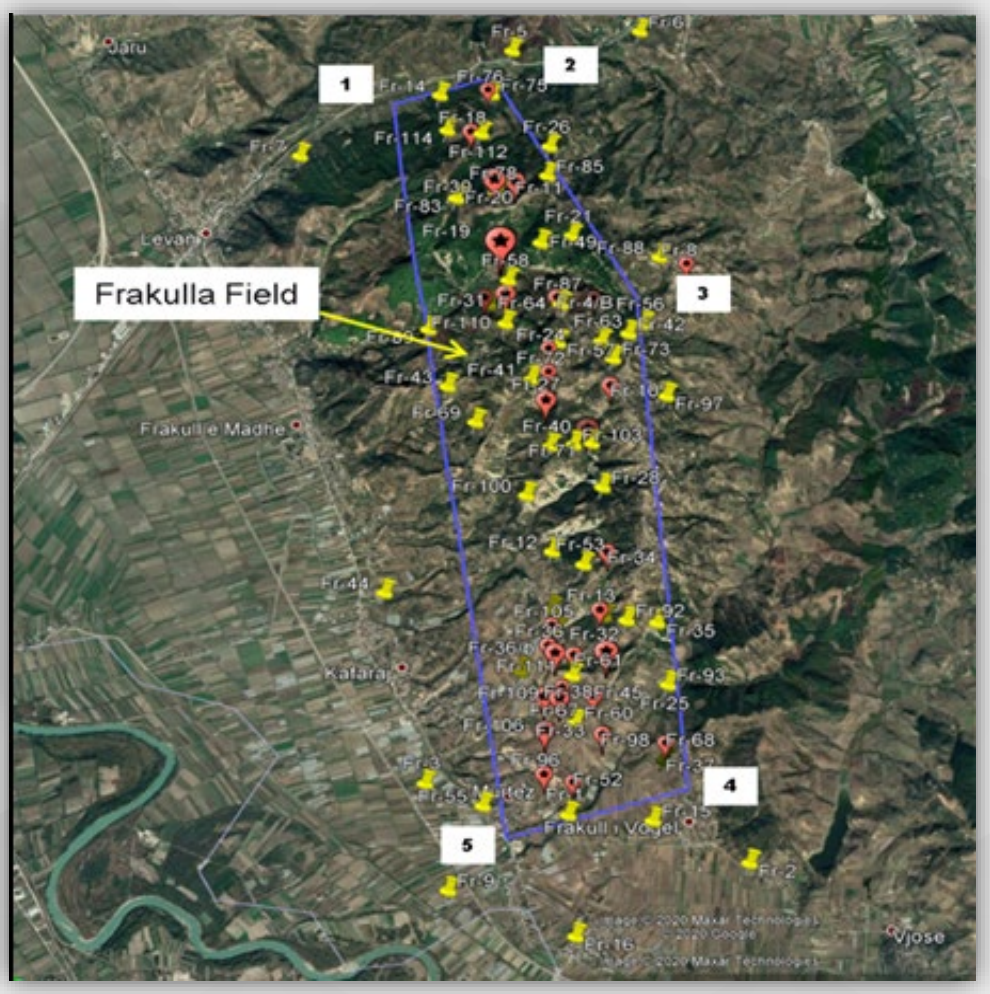


Working Progress on D12 Well

FRAKULLA FIELD

- EDG Natural gas company has been awarded Frakulla Gas field in June 2022.
- An Evaluation Phase program is underway with workover operations on existing wells and drilling new wells.
- Geological and Geophysical work have been already started, aiming to understand the subsurface reservoir model; the remaining gas resources and providing a plan for full field development.
- Potential untapped gas resources are evaluated to be in the order of 10 bcf.



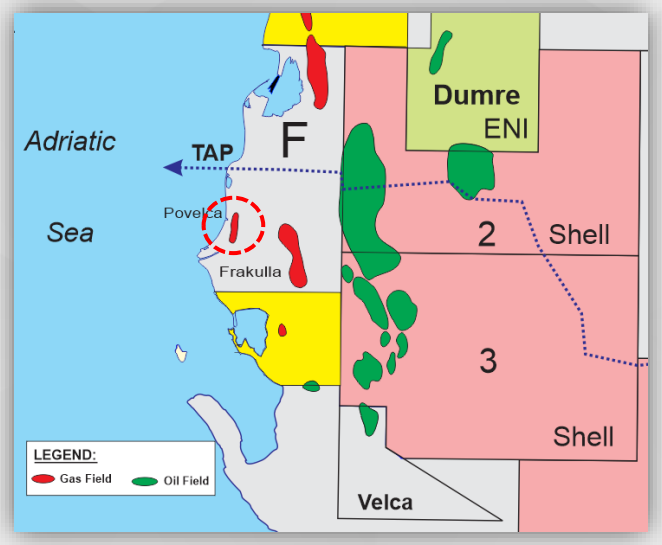


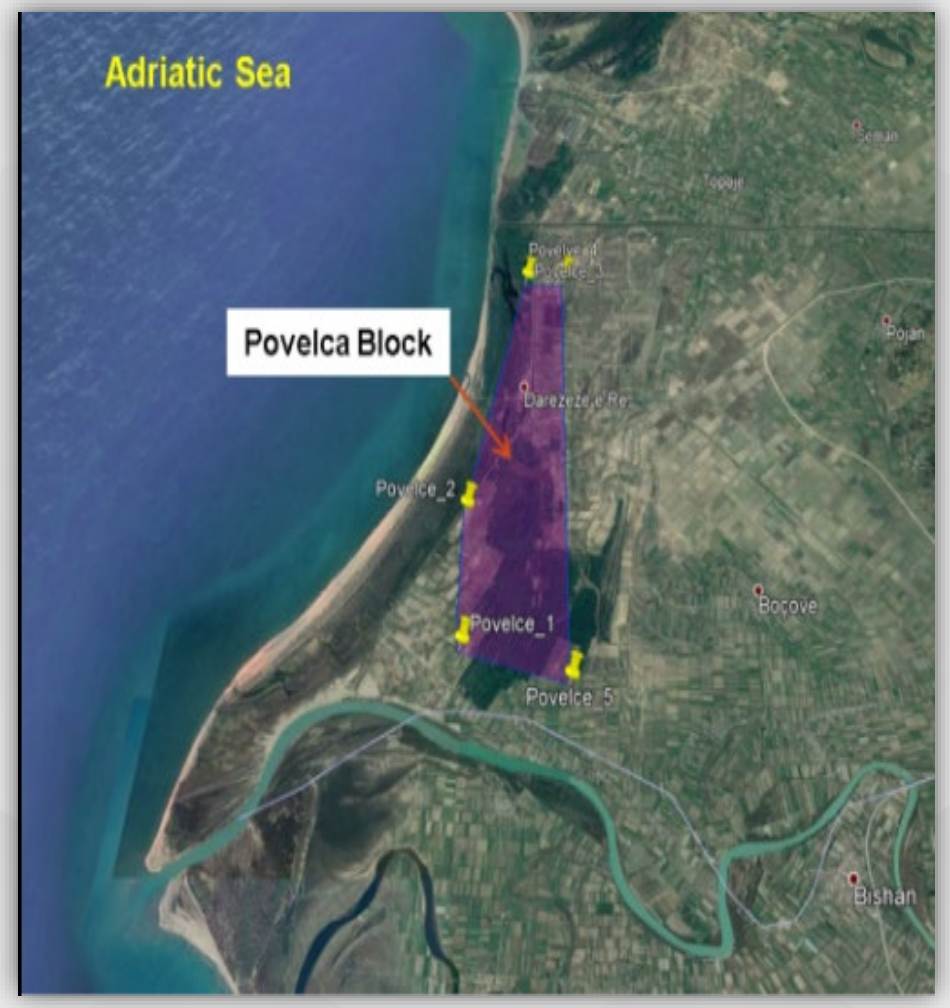
FRAKULLA FIELD - UPDATE

- Workover operations underway: Fr-19, 30.
- New well (Fr-115) completed in January 2023. Potential gas reservoirs to be tested in June 2023.
- G&G work underway:
  - Well data reviewing.
  - 3D reservoir model underway.
  - 2D seismic lines reprocessing completed.
- Potential gas marketing in 2nd half of 2023.
- CNG is seen as obvious option to commercialize the gas.

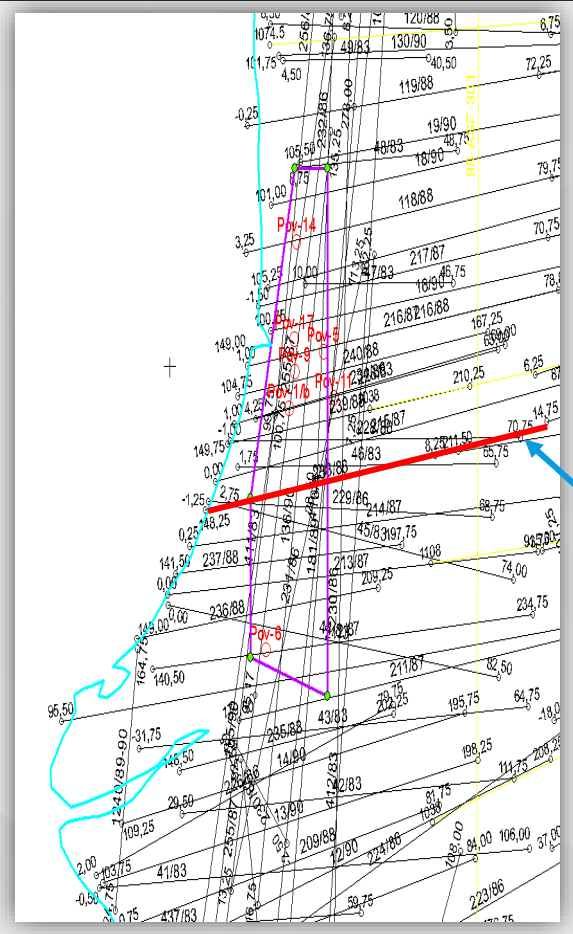
POVELCA FIELD

- EDG Natural gas company has been awarded Povelca Gas field in June 2022.
- An Evaluation Phase program, is underway.
- Geological and Geophysical work have been already started, aiming to understand the subsurface reservoir model; the remaining gas resources and providing a plan for full field development.
- Potential untapped gas resources are evaluated to be in the order of **10 bcf**.



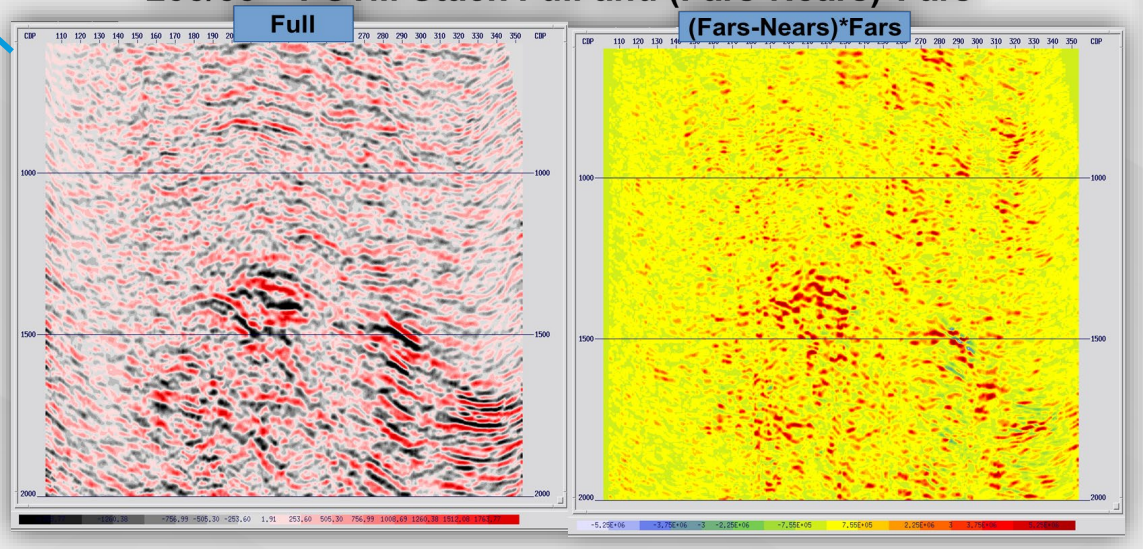


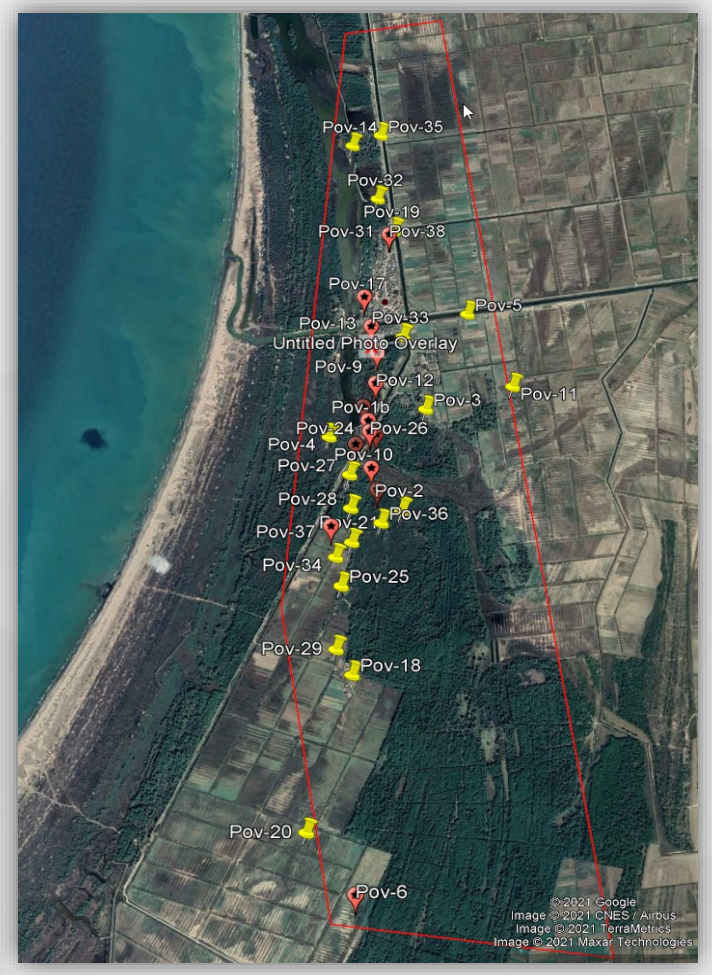
POVELCA FIELD - UPDATE



- **G&G work underway:**
  - Well data review (~ 40 wells).
  - 3D reservoir model.
  - 2D seismic lines reprocessing completed.
- Preparation for WO operations and new drill underway

238/88 – PSTM Stack Full and (Fars-Nears)*Fars





EDG – EXPLORATION INTERESTS IN ONSHORE ALBANIA

- EDG company has been a winner of an open bidding round for two exploration blocks in onshore Albania: Panaja and 'C'.
- Currently EDG (100%) is continuing negotiations with Ministry of Energy and Infrastructure and AKBN to finalize the PSA contracts for both blocks.
- If negotiations are successful, a Government Decision to award these two Blocks is expected by end of 2023.

Block 'C'
- Dry gas play.
- Potential gas resources:
  - 120 – 215 bcf

Block 'Panaja'
- Oil and gas play.
- Potential oil and gas resources:
  - Oil: 114 – 164 mmboe
  - Gas: 15 – 30 bcf

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