

## EXPLORATION & GAS DEVELOPMENT OPPORTUNITIES

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Maintain good production level from existing fields while reducing costs

Intensify the search for other production opportunities in existing concessions

Attract investments in Exploration

Check Production Decline

### **PRESENTATION OUTLINE**

- GENERAL INFORMATION ABOUT CAMEROON
- THE MAIN ACTORS IN E&P SECTOR
- **SNH ORGANIZATION**
- LEGAL AND REGULATORY FRAMEWORK
- PRESENTATION OF THE CAMEROON MINING DOMAIN
- PARTNERS IN EXPLORATION & PRODUCTION
- **FREE BLOCKS EXPLORATION ASSETS**
- CONCLUSIONS

#### GENERAL INFORMATION ABOUT CAMEROON: ECONOMIC INDICATORS

#### Situation: Central Africa;

- Borders shared with Chad, Nigeria, Gabon, Republic of Central Africa, Congo, Equatorial Guinea;
- Population: 19.6 millions (2010);
- Surface area: 475,442 km2;
- Average annual demographic growth rate: 2.19 %;
- GDP: 47,12 billion US\$ (2011 est.);
- GDP/Resident: 2,3 US (2011 est.);
- Growth rate: 6.1 % (forecast 2013);
- Currency: CFA FRANC
   1 EURO = 656 FCFA



Source : World Bank (2011)



### **SNH ORGANIZATION**

Creation: 12 march 1980

Nature : Para-Statal Company with an industrial and commercial status

#### Missions :

- promote, valorise and follow up all petroleum activities in Cameroon ;
- Manage State's interests in the domain of hydrocarbons;
- Commercialise the share of the national oil production accruing to the state;
- Manage and conserve E&P data generated in the country.

Manpower: 311 employees all Cameroonians



#### The Petroleum Code - promulgated into Law N° 99/013 of December 22, 1999

The Gas Code - promulgated into Law N° 2012/006 of April 19, 2012 (Replaces the former Gas Code: Law N° 2002/013 of December 30, 2002

### THE PETROLEUM CODE

- A Petroleum Contract replaces the former Convention of Establishment and Contract of Association
- The Petroleum Code and its enabling Texts are exhaustive and address all legal and regulatory matters relating to the Conduct of Petroleum Operations in Cameroon
- Clear identification of the Nature of the Contract (Concession or PSC)
- Negotiable or biddable issues are well identified
- Clear separation between The State as the Regulatory Body and the State Body party to a Petroleum Contract
- Issues related to Environmental Protection, Decommissioning and Sites Restauration are addressed

### THE PETROLEUM CODE: INCENTIVES

Reduced Company Tax rate from 57.5% to a negotiable value between 35% and 50%.

Tax Exemption on Profits and Dividends

Special conditions for exploring frontier acreages (Special Petroleum Operations Zones)

#### THE NEW GAS CODE

investments in the projects such as LNG, Methanol and Fertilizer.

- It provides (i) stability of the fiscal and legal regime and
  - (ii) obligations for the State to secure investments for gas projects.
- One of the main innovations is the institution of the Gas Convention to be signed between the State and the Gas Company.
- The Gas Convention specifies legal, fiscal, social and environmental conditions to be applied to the gas operations, and provides incentives to improve the economics of the significant gas projects.
- The main fiscal and customs incentives provided by the Gas Convention for the big gas projects are:
  - Tax holiday for up to ten (10) years;
  - Reduced Company Tax rate from 35% 50%, to a negotiable value between 15% and 30%;
  - Exemption of custom duties for imported project goods and equipment.

### PARTNERS IN EXPLORATION/PRODUCTION

- **1. Perenco Cameroon**
- 2. Perenco Rio del Rey
- 3. Perenco Oil & Gas
- 4. Addax Petroleum Cameroon
- 5. Addax Petroleum Company Cameroon
- 6. Pronodar Limited
- 7. Noble Energy
- 8. Petronas Carigali
- 9. EurOil Limited
- **10. Vitol E&P Limited**
- 11. Murphy Cameroon Ntem Oil Co, Ltd

- **12. Sterling Cameroon Ltd**
- **13. Kosmos Energy**
- **14. Rodeo Resources**
- **15. RSM Production Corpor.**
- 16. Victoria Oil & Gas
- 17. Glencore Explo. Cam. Ltd
- **18. Afex Global Limited**
- **19. Yan Chang Logone** 
  - **Development Holding Co**
- 20. SINOPEC International Petroleum Exploration and Production Corporation

### **PRODUCTION PROFILE**

PRODUCTION PROFILE FROM 1977 TO 2013 (IN MILLIONS OF BARRELS)





#### CAMEROON MINING DOMAIN & FREE EXPLORATION ASSETS



02



#### Cameroon Douala/Kribi-Campo basin: Schematic structural cross section

NW

#### **Trapping Mechanisms and Play-type Summary**



From ECL 2001

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# FREE EXPLORATION ASSETS



#### PROSPECTIVITY



# BOMANA: PETROLEUM



### **BOMANA PROSPECTIVITY**



### **DISSONI EXPLORATION**



#### 06 Wells

03 shallow deltaic discoveries

03 identified deep turbiditic prospects (Diongo/Isongo)

#### LUNGAHE



#### Located in the shale diapir Province of Rio del Rey

#### **LUNGAHE PROSPECTIVITY**

#### 4 wells

Three minor hydrocarbon discoveries

One identified prospect in the shallow deltaic section

Additional leads identified in the deep turbidite system



#### **KOMBE-NSEPE**

Onshore Douala basin 17 wells 5 minor hydrocarbons discoveries Tertiary and Cretaceous prospects and leads Speculative resources: 1315 mmbo







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### MANYU BLOCK

The MANYU Block represents the prospective area of the Mamfe sedimentary Basin located in the South-West Province of Cameroon.

The petrography of the Mamfe Basin includes mainly conglomerates, sandstones, siltstones, claystones and shales.



Geological Map of the Mamfe Basin : MANYU Block location



#### Source Rocks (SR):

Include excellent lacustrine black shales with type I to type IV kerogen and TOC ranged from 0.12 to 7.23%),

■Oil window (0.5%<Ro<1%) is situated between 3000 m to actual surface.

Sealing Rocks:

Are represented by lacustrine and over bank shales and claystones.



■ Are mainly made of Lower cretaceous arkosic sandstones (Thin section £=30-40%),

Longitudinal and transverse bars, isolated or multistoried lenses and channels.

#### - Traps:

Stratigraphic traps (abandoned channels and pinchouts), and ,

Structural traps (post-rift folds, syn- and post-rift faults).
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Geological Model (Dynamic Rift) suggests that HCs can still be trapped within deep structures.



## GAS DEVELOPMENT OPPORTUNITIES

#### **GAS RESOURCE BASE**



 Potential reserves of non-associated natural gas : 20 TCF (556 billion cubic metres);

 Proven reserves of non-associated natural gas: 5 TCF (141,6 billion cubic metres);

 Recoverable proven reserves : 4 TCF (114 billion cubic metres).





GAS EXPORTATION FROM CAMEROON



#### **OIL PRODUCTION**

#### **GAS VALORISATION**







The gas supply for the Kribi Gas Power Plant will be effective at the end of February 2013. The Plant offers additional capacity 216 Megawatts. The current supply stands at 1015 Megawatts





### **CONCLUSION (1/2)**

Gas is no more stranded Asset but the Energy for the future;

- The new institutional framework has asserted the government's proactiveness to create the conditions for gas development;
- Privatization of the electricity sector and the present economic growth have warranted the promotion of gas-to-electricity projects
- Government policy today is to diversify energy sources to meet growth rate.



## CONCLUSIONS (2/2)

- BOMANA, LUNGAHE and DISSONI Blocks are highly prospective with estabilished hydrocarbon discoveries
- KOMBE-NSEPE and MANYU Blocks remains underexplored with appreciable potential
- Good prospectivity in these five blocks highlighted in several studies realised so far
- The attractive Petroleum and Gas Codes, and the political stability of Cameroon in the subregion provide an incentive environment for investments in the country's hydrocarbon sector.

# THANK YOU