

# Resources & Investment

## MINISTER OF PETROLEUM



**Desidério Verissimo e Costa**

## MINISTER OF ENERGY AND WATER



**José Botelho de Vasconcelo**

## Sonangol

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**Proven Oil Reserves (1/1/00E):** 5.4 billion barrels **Oil Production (1999E):** 766,000 barrels per day (bbl/d), all of which is crude oil. **Oil Consumption (1999E):** 34,000 bbl/d

**Crude Oil Exports (1999E):** 732,000 bbl/d

**Refining Capacity (1/1/00E):** 39,000 bbl/d **Natural Gas Reserves (1/1/00E):** 1.6 trillion cubic feet. **Natural Gas Production (1998E):** 20.5 billion cubic feet (bcf). **Natural Gas Consumption (1998E):** 20.5 bcf **Electric Generation Capacity (1/1/98E):** 617 megawatts. **Electricity Generation (1998E):** 1.9 billion kilowatt per hour (75% hydroelectric, 25% thermal).

## ENVIRONMENTAL OVERVIEW

**Total Energy Consumption (1999E):** 0.1 quadrillion Btu\* (0.03% of world total energy consumption).

**Energy-Related Carbon Emissions (1999E):** 3.7 million metric tons of carbon (0.06% of world carbon emissions) **Per Capita Energy Consumption (1999E):** 8.1 million Btu (vs. US value of 355.8 million Btu) **Per Capita Carbon Emissions (1999E):** 0.3 metric tons of carbon (vs. US value of 5.5 metric tons of carbon) **Energy Intensity (1999E):** 9,900 Btu/\$1990 (vs. US value of 12,638 Btu/\$1990) \*\* **Carbon Intensity (1999E):** 0.35 metric tons of carbon/thousand \$1990 (vs US value of 0.19 metric tons of carbon/\$1990)\*\* **Sectoral Share of Energy Consumption (1998E):** Transportation (8.7%), Industrial (17.2%) **Residential (70.2%), Commercial (3.8%)** **Sectoral Share of Carbon Emissions (1998E):** Transportation (34.9%), Industrial (40.6%) **Residential (9.1%), Commercial (15.4%)** **Fuel Share of Energy Consumption (1999E):** Oil (69.2%), Natural Gas (20.5%), Coal (0.0%) **Fuel Share of Carbon Emissions (1999E):** Natural Gas (64.4%), Oil (35.6%), Coal (0.0%) **Renewable Energy Consumption (1998E):** 174 trillion Btu\* (2% increase from 1997) **Number of People per Motor Vehicle (1998):** 50 (vs US value of 1.3) **Status in Climate Change Negotiations:** Non-Annex I country under the United Nations Framework **Convention on Climate Change (ratified May 17, 2000).** Not a signatory to the Kyoto Protocol.

**Major Environmental Issues:** Overuse of pastures and subsequent soil erosion attributable to Population pressures; desertification; deforestation of tropical rain forest (in response to both international demand for tropical timber and to domestic use as fuel), loss of biodiversity; soil erosion contributing to water pollution and siltation of rivers and dams; inadequate supplies of potable water.

**Major International Environmental Agreements:** A party to Conventions on Biodiversity, Desertification and Law of the Sea.

\* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar and wind electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes.

Sectoral shares of energy consumption and carbon emissions are also based on IEA data. \*\*GDP based on EIA International Energy Annual 1998.

## MINISTER OF TOWN PLANNING AND ENVIRONMENT



**Virgílio Ferreira Fontes Pereira**

## **OIL AND GAS INDUSTRIES**

**Organisation:** State-owned Sociedade Nacional de Combustiveis de Angola (Sonangol) oversees offshore and onshore oil operations in Angola **Major Oil Fields (production bbl/d) (1998E):** Takula-Block Zero (135,158 bbl/d), Numbi-Block Zero (66,713 bbl/d), Kokongo-Block Zero (37,330 bbl/d), Pacassa-Block 3 (70,577 bbl/d), Cobo/Pambi- Block 3 (51,304 bbl/d) **Major Refineries (1/1/00 Capacity):** Fina Petroleos De Angola - Luanda (39,000 bbl/d)

**Major Oil Terminals:** Luanda, Malango (Cabinda), Palanca, Quinquena

### **Oil: The Engine of Angola's Economy**

Producing more than 800,000 barrels per day, Angola is the second largest oil producer in sub-Saharan Africa. Oil accounts for 90 percent of total exports, more than 80 percent of government revenues and 42 percent of the country's GDP.

Oil output is expected to reach one million barrels per day by the year 2000. Since 1996 gigantic new discoveries are made and the country's known recoverable reserves are currently estimated to total more than 7.7 billion barrels, but continuing exploration finds new reserves at the same rate oil companies deplete old ones.

Approximately 15 foreign companies including Chevron, Texaco, Exxon and Occidental, have invested more than \$8 billion in Angola. Oil companies are attracted by Angola's low operating costs, favourable geology and good business terms. US firms continue to invest more money in Angola. Chevron, which has been operating in Angola for over 40 years, announced it has discovered four new offshore fields with 300 million barrels of recoverable oil. Between 1994 and 1998, Chevron had put forward a plan to develop deep-water oil field off Angola for more than 25 years and will invest \$600 million to develop new fields. Halliburton was recently awarded a \$20 million contract to develop oil services in Cabinda province which will benefit all oil companies operating there.

## **OIL COMPANIES OPERATING IN ANGOLA**

### **The ChevronTexaco Corporation**

Chevron Corp. and Texaco Inc. merged on September 7, 2001. The new company is now called ChevronTexaco Corporation

**Chevron:** Operating in Angola for over 40 years.

**Texaco:** Operating in Angola for over 25 years.

**The New ChevronTexaco:** Nation's largest petroleum producer - nearly 600,000 barrels a day. Plans to implement, along with partners, significant, billion-plus investments in new developments, including Benguela-Belize and Sanha Condensate field development projects and the Angola LNG project. Nation's largest oil industry employer - 80 percent of jobs held by Angolan nationals. Active partner in community with investments in education, health, environment.

### **Halliburton (Texas)**

Recently was awarded a \$200 million contract to develop Cabinda's oil well services.

US Export-Import Bank guaranteed an \$86.6 million in loans for this contract.

The further development of the Cabinda concession area will benefit all oil companies operating there.

### **ExxonMobil (Virginia)**

In 1996, in conjunction with Texaco, signed a production sharing agreement for Block 20 of Angola's offshore oil site.

### **Offshore Pipeline International (Texas).**

Lists Angola as its most important international market.

Recently won a \$70 million contract from Chevron's Angola operations.

### **BP Amoco**

**Apache International, Inc. (Texas)**

**Citizens Energy Corporation (Massachusetts)**

**Global Marine Drilling Company (Texas)**

**Occidental International Exploration and Production Co. (California)**

**Pecten International Co.** (Texas)

[CNRL](#) - Canadian Natural Resources Limited (Calgary - Alberta)