

Horizontal overview CYPRUS

1. Energy-related and socio-economic analysis: past, present and future

1.1. Factual information

1.1.1. Geography & population

Cyprus is an island and has a surface area of 9,250 km² (of which 3,355 km² are in north Cyprus currently controlled by Turkey). Cyprus's climate is temperate, with mild winters and hot dry summers.

Cyprus counts 780,133 inhabitants.

1.1.2. Economy and Energy Demand

The Republic of Cyprus joined the EU on 1 May 2004. In 1983, the Turkish-held area declared itself the "Turkish Republic of Northern Cyprus," but it is recognized only by Turkey. Although theoretically every Cypriot carrying a Cyprus passport will have the status of a European citizen, the Government of the Republic of Cyprus controls only the southern part of the island.

Cyprus has a market economy mostly based on commerce, services and income from international maritime operations. The public sector is small. GDP per capita in purchasing power parity is \$20,300 (2004 est.) but for north Cyprus in purchasing power parity it is \$7,135 (2004 est.).

Over the last five years GDP growth was steadily higher than 3 % per year, in real terms (3.2% in 2004). The structure of GDP is roughly: agriculture 4.1%; industry 19.9%; services 76%. Inflation is constantly less than 2.4% on an annual basis (but it is high in northern Cyprus). The currency is strong. Unemployment is very low (3.2%). All financial indicators are healthy, including the public budget, the national debt and the current account of the country.

The services sector accounts for roughly 80% of total economic activity and manufacturing concerns light industrial activities (mostly food industry).

The use of primary energy per capita is 90% of the EU-25 average but energy intensity is higher by 30% of the EU-25 average. Electricity consumption per capita is in Cyprus at 75% of the EU-25 average. Energy intensity has been increasing over the last 15 years, due to high growth of electricity use in houses and in the tertiary sector. The use of electricity is expected to grow over the next ten years at rates slightly above GDP growth, as it was the case over the last fifteen years. There is a significant potential for more rational use of energy in buildings and in the transportation sector.

1.1.3. Energy Supply

Cyprus is totally dependent on imports for its supply in conventional energy. The only national resources are solar, wind (moderate potential) and wood. About 90% of dwellings and 50% of hotels are equipped with solar water heaters. Cyprus is the first user of solar equipments per inhabitant for hot water (650 000 m²).

Cyprus is almost 100% depending on petroleum, except small quantities of coal used in a small cement industry. Crude oil imported is refined in a local refinery, but Cyprus is also importing petroleum products. On average, the structure of the imports is the following: crude oil 45 %, oil products 55 %.

Electricity is exclusively produced from petroleum products at 3 plants: Dheklia with 360 MW and Moni, 330 MW steam generation plants burning fuel oil and the new power plant of Vassiliki of 2x130 MW with fuel oil, plus a gas turbine with diesel oil of 38 MW. The total capacity is now around 1000 MW. The electricity prices are high: 130 Euro/MWh for households and 90 Euro/MWh for industry. Taxes and other policy measures in favour of renewables have been recently introduced.

The power plants are heavily polluting and do not comply with the recent directives of the EU. Transitory measures are taken to reduce pollution.

2. Policy

Within the framework of its development plan of the electricity sector, EAC plans to invest 1.7 G € during 10 next years, of which a little less than half for completion of the Vassilikos power plant. A first unit is already in operation (2000). Unit two (130 MW) should be commissioned in 2005. Unit 3, (3 groups of 180 MW each) will include a combined cycle (gas/diesel), which will run on gas as soon as it is supplied (commissioning in 2006, 2007 and 2009). The power plant will have in 2009 a total capacity of 960 MW. With the progressive decommissioning of the Moni plant, the capacity will reach 1320 MW in 2010. The BEI granted in October 2002 to EAC, a loan of 100 M € to reinforce the electricity transmission network. In Northern Cyprus, occupied by Turkey, the electricity demand has rapidly increased; until now electricity is supplied by the southern part of Cyprus; the northern government is likely to build in the future 2 plants of 60MW each, between Turkey and the north of the country (this project should be piloted by the electric company Kib-Tek, with a certificate of guarantee given by the Turkish government).

The government of the Republic of Cyprus decided to import LNG to supply the power plants. This measure is taken first in order to comply with the environmental restrictions imposed by the EU, second to cover the increasing electricity needs. A regasification unit will be built by 2008 close to the power plant of Vassilikos. Cyprus had initially planned to import, by an underwater gas pipeline, gas from Syria. The LNG consumption should reach 0.7 Gm³ in 2009 and 1.8 Gm³ in 2021.

Information not officially confirmed as reported in the press, speak about considerable oil and mainly gas fields that are located in the south of Cyprus, in the area between the island and Egypt. According to the same information exploration activities will soon begin. Political tensions have already been raised regarding the rights of the neighbouring countries.

3. Peculiarities

4. Bibliography

- [1] European Energy and Transport – Trends to 2030; January 2004; and Scenarios on Key Drivers; October 2004; Brussels.
- [2] IEA: Electricity Information (2004 Edition)
- [3] IEA Energy Statistics on the Web: <http://www.iea.org/statist/index.htm>
- [4] CIA- world fact book
- [5] Various documents from [NTUA](#) energy plan study carried out for the Republic of Cyprus in 1999.