



French Polynesia



French Polynesia is a group of 118 islands and atolls in the South Pacific. It is composed of five groups of islands, the Society Islands (which include the island of Tahiti), the Austral and Gambier Islands, as well as the Marquesas and Tuamotu archipelagos.

It has been an overseas territory of France for over 60 years. French Polynesia gained political autonomy in 1984, and has a self-governing status within the French Republic. Under the new autonomy statute of March 2004, French Polynesia became an “overseas country” of France with increased domestic and international autonomy. The French Polynesian economy relies heavily on financial aids from France. Tourism and the black pearl industry make up the bulk of their economy.

The country has consistently banked in a healthy GDP growth of around 4.5 percent annually. Most French Polynesians work for the government or the tourism industry. The country is self sufficient, with a good agricultural sector providing food for local consumption.

In the early 1960s, around 50 percent of the workforce was employed by agriculture. By 1990, this figure dropped to 9 percent. The growing economy provided new jobs in the military and tourism sectors for the people.

Goods prices are high in the islands due to its trade deficit and remote geographic location. French Polynesia hosts an international banking system operating on a stable monetary policy. There is a total freedom on currency transfers,



Photo: Daneer Henzama, EDT

and there is a firm base for financial development given a Euro exchange rate guaranteed by the French state.

Structure

The group, Electricité de Tahiti, is responsible for the production and distribution of electricity on Tahiti and in 18 islands of French Polynesia.

For more than 50 years, the men and women of EDT have been dealing with the challenges

PROFILE

| | | | |
|------------|-----------------------------|------------------------|------------------|
| Capital | Papeete | Installed Capacity | 528 MW |
| Area | 4,167 km ² | Population Electrified | 97% |
| Population | 278,963 | Main Voltages (kV) | 90, 30, 20, 14.4 |
| GDP | US\$4.58 billion | Natural Resources | hydropower |
| Currency | French Pacific Francs (CFP) | | |

every day so as to respond to the needs of the towns, enterprises, private sector and new demands linked to the growth in population, urbanisation, rise in the standard of life and the protection of the environment.

Through the knowledge and commitment of 422 of Electricité de Tahiti group's personnel, today more than 74,000 customers (55,000 for Tahiti and 19,000 for the islands) have access to electricity.

The head office of Electricité de Tahiti is in Puurai, Faa'a as is the main building. There are two other offices, in the centre of Vaima and in Taravao, and two sub-branches (Arue and Papara). For the islands, 16 branches. The two in Emile Martin (Punaruu) and Vairaatoa took care of thermal production, for 376.4 GWh in 2006. In Tahiti, 70% of the energy has been supplied in 2007 by diesel generators running on Heavy Fuel, and 30% on hydropower.

In the outer islands, energy supply relies mostly on gazole. A few percent is produced by renewable energy.

Hydro-electric production in Tahiti was significant in 2006 with production at 157.6 GWh. The total annual production of electric energy in the islands has been 131 GWh, of which 3 GWh in hydro-electricity to the Marquises Iles.

By end of 2008, the generation capacity in French Polynesia will reach 281 MW

Government Regulation

The "Service de L'Energie et des Mines", a department of the Government of French Polynesia, is in charge of regulating the power sector and controlling electricity fares. Regarding investments, all projects above 100 kW must be validated by the "Energy Commission".

Tariff Structure and Subsidies

The tariff structure is composed of 11 different rates, based on a reference rate, with five main classifications: residential, industrial, commercial, street

lighting and pre-payment (used for remote areas). Details are given in following sections.

The Electricity Reference Rate, $P_{ref} = E + T + ACE$, includes : E = Price per kWh for primary energy used (Fuel, Hydroelectricity, renewable energy) T = Price per kWh for Transportation of energy between Power plants to substations ACE = all other Charges for exploitation every 5th year (beginning in 2001).

The Government & EDT negotiates the value of each term with the evolution of life's cost, technical yield of networks, total consumption and growth in the last 5 years. Tariff rates are made public after they are approved by the local government after the ministerial council meeting.

Low Voltage :

Subscription monthly fees : Monthly fee is fixed for low voltage customer at a value (in XPF) of : $P = 14.04 \times 16.12 \times N$ with N : Value in kVA of power subscribed by customer for the point of connection.

01 - Residential Tariff :

Mensual consumption (kWh) : C

| | |
|------------------------|-----------|
| P.U. per kWh (H.T) | |
| 0 < C < 100 kWh | 10,53 XPF |
| 100 < C < 200 kWh | 28,68 XPF |
| C > 200 kWh | 37,21 XPF |
| 06 - Public Lighting : | 29,00 XPF |



Photo: Daneë Henzama, EDT

07 – Commercial 33,83 XPF

High Voltage :

Subscription monthly fees : Monthly fee is fixed for High voltage customer at a value (in XPF) of : $P = 468.19 \times 16.12 \times N$ with N : Value in kVA of power subscribed by customer for the point of connection

Day Use Monthly consumption (kWh): CD

P.U per kWh (H.T)

| | |
|------------------|-----------|
| 0 < CD < 16200 | 26,08 XPF |
| 16201 < CD 48600 | 17,18 XPF |
| CD > 48600 | 16,57 XPF |

Night Use Monthly consumption (kWh) : ND

| | |
|-------------|-----------|
| 0 < ND 9000 | 17,52 XPF |
| ND > 9000 | 16,35 XPF |

There are no direct governmental subsidies allocated to electricity rates. But rates are equalized between the main island of Tahiti and all remote islands which are under concession contract with EDT (18 islands).

Regarding the fuel supply, there is a special regulation fund managed by the Government, used to subsidize and control the cost variation of fuel imports.

Renewables and the Environment

The main renewable energies in French Polynesia are Hydro, Solar and Wind energy, with a respective output of 25%, 0.4% and 0.01 % of the total produced energy in French Polynesia. In 2007, 702 GWh have been generated in French Polynesia, mainly from diesel power plants (75%) and from hydroplants (24.5%).

Regarding diesel power plants, stronger quality air regulation applies now to the largest installations. DeNOx systems had to be integrated in the latest projects, such as a 12 MW turbine or an on-going 34 MW power plant extension in Tahiti. Besides, higher chimneys are now required for a better gas dispersion, considering the use of 2% sulphur heavy fuel oil.

Regarding hydropower plants, environmental issues are now more and more important, with strong impacts on the design of installations. Dedicated communication schemes are used to address these new constraints, as well as the concerns of the local populations.

In Tahiti, considering the ageing of existing installations and the expected demand growth of around 3%, the master plan calls for the creation of a third Power Plant of around 40 MW in Tahiti by 2015, with an extension in 2018. Besides, additional hydropower resources of around 10 MW are forecasted by 2010-11.