BIOMASS

The year 2018 should be one more ending with the tariffs of electric energy at high prices and the hydroelectric reservoirs down. The subsystem of the Southeast and Center-West, which accounts for about 70% of the water storage for power generation in Brazil, has less than a quarter of its useful volume.

Given this scenario and with the risk of one of a shortage of energy in the coming years, there is a growing need for companies to seek alternatives to supply their energy demand. The use of thermoelectric plants based on biomass, solar and wind has been alternatives to mitigate such risk.

The Thermoelectric City of the Book, located in Lençóis Paulista, in the interior of the state of São Paulo, will generate clean and 100% renewable energy from the second half of 2021.

The project has an unprecedented contracting model in the market: the purchase of quotas tied to an option contract. The companies will have energy ballast, with flexibility in the exercise of the option and guaranteed prices for a period of not less than 10 years. With prices previously known, the company is not susceptible to high-energy tariffs, and can plan its consumption in addition to being able to access the best opportunities in the spot market.

The project will deliver 50-incentive energy, allowing the exchange for carbon credits in the international market.

Reference contracts for carbon futures rose 4.6 percent to € 20.70 per ton in the London trading session. EU measures can push prices to EUR 50 per ton over the next three years. Here is a differential in relation to wind and solar.

The generating capacity of the City of the Book is 50 MWm (average megawatts), with consumption of 650 thousand tons of wood chips per year, operating 8,300 hours annually.

With an innovative format, the business proposal has financial modeling capable of generating an Internal Rate of Return (IRR) estimated between 11 and 12%.

Brazil is estimated to have a total annual consumption of 13.7 million m3 of bark, 56% of which is bark in the field, 36% in the yard, and the remaining 8% do not need barking.

Whitening bark or transporting excess bark from the forest is not good business. The surplus is good for use in biomass as well as natural manure for the forests.

In the first case, a new market opportunity.