

Policies for Electricity Generation from biomass in Brazil: Current Situation and Proposal of More Efficient Policies

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The Brazilian electric sector was completely modified since 1996, when the privatization of the state-owned utilities has started. Several changes were then introduced, including the new regulation establishing the figure of the Independent Power Producer (IPP), allowing the producers to sell the generated electricity to any consumer in the market through the payment of a wheeling tariff.

Considering that, in a near future, the consumers will be free to choose their supplier, among the best prices offered, self generation and co-generation could have an important role mainly in the case of renewable energy sources.

Several measures were taken until now to promote green energy in the country, including new legislation and regulations. For example, special reduced rates are offered for wheeling tariffs in the case of electricity generated from small dams (but only for small dams). Some tax exemptions also exist for solar and wind energy.

Regarding the purchase of electricity by the utilities, ceiling prices were established (Normative Values) for each energy source, corresponding to the maximum value allowed to be included in the final price to consumers by the utilities. Differential figures were established to each renewable energy. However there was no minimum price for the energy purchase.

More recently, the existing subsidy for diesel generation in Amazon (the so called Fuel Consumption Account, or “Conta Consumo de Combustíveis – CCC”) was expanded to any renewable source of energy. This is an important factor to collaborate to the economic feasibility of biomass projects in Amazon, according to several studies developed by CENBIO.

Also in the beginning of 2001, the minimum prices for energy purchase were established (based on the Normative Values) and the mandatory purchase was guaranteed, all these policies also for small dams.

Considering the huge amount of biomass available in the country, mainly in the sugar/alcohol sector (300 million tones of sugarcane crushed in average) and the significant potential for electricity generation from sugarcane bagasse (around 3,000 MW, only with technologies available in the country), special policies for biomass-origin electricity generation are needed.

In several workshops and seminars these policies are proposed, many of them organized by the CENBIO aiming to discuss regional aspects. For example, the Declaration of Florianopolis was elaborated by CENBIO based on the discussions among local industries, utilities, regulatory agents and governments (in all levels). The main objective is to propose new policies allowing a complete framework regulation able to strength the biomass-based electricity generation.

Therefore, this papers discusses the existing regulation for the electric sector, and the proposed policies to the implementation of biomass-based electricity, including the mandatory purchase of the energy generated, the establishment of minimum prices, the obligation of a minimum percentage of renewable energy in the energy matrix of each utility, the review on the Brazilian environmental legislation for

pollutant emissions from stationary sources (mainly the establishment of NO_x emission factors), among others.

These aspects are extremely important in a moment where the Brazilian energy matrix is planned to be strongly changed, with the introduction of the Thermoelectric Power Program, aiming to install around 20 GW from fossil fuel mainly natural gas imported from Bolivia. According to the Ministry of Mining and Energy, this program has the objective of guarantee the energy offer in short terms due to the forecasts of high risk of deficit. Special policies were even established with several incentives, as discussed here.

In a moment where the reduction of carbon emissions is discussed worldwide, the implementation of policies allowing a large-scale biomass-based generation program would be significant.

References

[1] “*Medidas Mitigadoras para a Redução de Emissões de Gases de Efeito Estufa na Geração Termelétrica*” (in Portuguese), “Mitigation Measures for the Reduction of Greenhouse Gases in Thermoelectric Generation in Brazil”, project developed by CENBIO – The National Reference Center on Biomass and funded by ANEEL – National Regulatory Agency on Electric Energy. Published by ANEEL, Brasília, 1999-2000, 222 pg.