



BIODIESEL

THE NEW FUEL FROM BRAZIL

NATIONAL PROGRAM OF BIODIESEL PRODUCTION AND USE (PNPB)



1. Biodiesel in Brazil

In Brazil, biodiesel is the biofuel deriving from renewable biomass to be used in internal-combustion engines with ignition by compression or, subject to regulation, in another type of power generation that either partially or totally replace fossil fuels. Thus, there are several possibilities for the use of biodiesel in urban, road, railway and water-way passenger and cargo transportation, power generators, stationary engines, etc.

When the National Program of Biodiesel Production and Use (PNPB) was started, on December 6 2004, the Brazilian Government relied on the growing demand for fuels from renewable sources and on the Brazilian potential to meet an important part of these needs, thus generating jobs and income in rural areas, reducing regional inequalities and contributing to foreign-exchange savings and to the improvement of environmental conditions. This is a summary of the rationale behind the PNPB. Energy is key to development. In the Eighteenth Century, the predominant fuel source was coal, followed by oil in the next centuries. There is widespread consensus among energy specialists as to the fact that the Twenty-first Century will be the age of agroenergy.

Energy security must be achieved through the increasing production of fuels from renewable sources and this achievement requires compliance with the requirements of sustainability in the broad sense of this expression: environmental, economic, social and technological sustainability.

Brazil has very favorable land and climate conditions and has a great potential for the production of biomass. The addition of value to agricultural activities represents a major comparative advantage to Brazil. Biodiesel is one of these possibilities, perhaps the most promising one, because the demand for energy will increase as the world economy keeps growing. This means that the demand for agroenergy grows uninterruptedly, contrary to what happens to most agribusiness products.

In this context, the Government has foreseen the possibility – which is actually taking place – of engaging small farmers and producers of the Brazilian poorest regions in the biodiesel value chain. This is being achieved by means of tax incentives granted to firms that purchase oil-producing crops grown by small farmers. With the purpose of creating market for biodiesel, a law that requires the addition of biodiesel into diesel (2% in 2008, and 5% in 2013) was passed.

2. The Tax Model of Biodiesel

The model was designed to grant total or partial federal taxes exemptions (CIDE, PIS/PASEP and COFINS) applying to fuels for biodiesel producers that support family farming, in order to allow for compliance with the basic guiding principles of the PNPB. These being the promotion of social inclusion and reduction of regional inequalities through the generation of jobs and income in the poorest segments of Brazilian agriculture. The model is based on the following assumption: federal taxation on biodiesel should never exceed those on mineral diesel. However, biodiesel producers that acquire raw material from family farmers, anywhere in Brazil, are eligible to reduction of up to 68% in federal taxes. If these purchases are made from family-based producers of palm oil in the North Region, or of castor oil in the Northeast and in the Semi-Arid Region, the reduction may reach 100%. If the raw material and the regions are the same, but if producers are not family farmers, the maximum reduction is of 31%. In order to qualify for these tax benefits, biodiesel producers have to hold a certificate: the Social Fuel Stamp.

3. The Social Fuel Stamp

The Social Fuel Stamp is a certificate issued to biodiesel producers that purchase raw materials from family farmers within minimum limits that vary according to the region, and which meet the additional requirements mentioned below. As provided by Normative Instructions MDA 01 and 02, of 2005, the Social Fuel Stamp is issued by the Ministry of Agrarian Development (MDA) to biodiesel producers authorized by the Brazilian legislation to produce and sell this new fuel provided that they meet the following requirements:

- a) To purchase minimum percentages of raw materials from family farmers, 10% from regions North and Mid-West; 30% from the South and Southeast and 50% from the Northeast and the Semi-Arid Region; and
- b) To enter into contracts with family farmers establishing deadlines and conditions of delivery of the raw material and the respective prices, and to provide them with technical assistance.

Companies holding the Social Fuel Stamp may benefit from a partial or total reduction of federal taxes, as defined by the biodiesel tax legislation. They may also participate in purchase auctions for this new fuel and use this certificate to identify the origin/brand name of biodiesel.

4. Mandatory mix, growing market

Pursuant to the Law # 11.097/2005, starting from January 2008, the B2 mix, which should include 2% of biodiesel and 98% of diesel, will be mandatory across the country. In January 2013, this mandatory mix will increase to 5% of biodiesel (B5). It is also possible to use higher percentages of mix and even pure biodiesel (B100) by means of an authorization by the Petroleum, Natural Gas and Biofuels National Agency (ANP).

Thus, the economic incentives for the production of biodiesel in Brazil derive from the evolution of this captive market and from the expansion of external markets. Public policies must provide the conditions for this market to operate in an efficient way and to meet the goals of promoting social inclusion and the sustainable development of the country's poorest regions.

5. Lines of Credit

There are funding lines with reduced financial charges and longer grace and amortisation periods for the entire biodiesel value chain, encompassing investments in equipment and industrial plants and loans for the planting of raw material for the production of biodiesel.

These loans are granted by official banks with funds from the National Bank of Economic and Social Development (BNDES), from the National Program for the Strengthening of Family Farming (Pronaf) and from other sources.

Given the economic attractiveness of the production of biodiesel, other credit institutions are funding or planning to fund links of the biodiesel value chain, such as Banco do Brasil, with the BB-Biodiesel line of credit, and other official banks and national and foreign private banks

6. Technological Development

The federal incentive resources and financing funds to technological development is another important instrument within the PNPB.

These incentives include the selection of raw materials according to the different regional soil and climate characteristics, one of the most important aspects, due to the diversity of oleaginous plants and to the fact that they represent about 75% of biodiesel production costs.

Another important component is the development and/or improvement

of more efficient industrial production processes and tests in engines and components with different proportions of biodiesel for supporting the use of biodiesel-diesel mixes in percentages above 5% in the near future.

New uses and applications for the co-products of the production of biodiesel (particularly animal-feed products and glycerine) also receive technological development support.

7. Other support instruments

Within the other governmental levels (States and Municipalities), the Federal Government tries to encourage initiatives to develop the production and the use of biodiesel.

The definition of the State tax burden compatible with the federal tax model has been constantly debated within the National Council of Financial Policy (CONFAZ), government staff that coordinates measures concerning the state taxes applying to the commercialization of fuels (ICMS).

The organization of family farmers in producer associations or cooperative organizations, to reach economic scale in the production of raw materials, is another example of joint initiative among the Federal Government, Local Governments and entities of organised civil society, once they are important for achieving the goals of the PNPB.

Partnerships with non-governmental organizations and scientific and technological cooperation with other countries are also included in the scope of the PNPB.

8. The Principle of Non-Discrimination with Quality Guarantee

Although there are tax incentives for the production of biodiesel with raw materials grown by family farmers and in the Country's most poor regions, the existence of a captive and growing market for biodiesel represents a very important economic incentive for capitalised companies having greater production scale. These companies, operating in a market economy, take positions according to their characteristics and business strategies, once the Federal Government don't produces biodiesel, but rather promotes its production and use, with sustainability and quality compatible with the requirements of the internal and external markets.

In addition, Brazil has different regional peculiarities and the potential to

produce biodiesel from different raw materials (castor oil, soybeans, palm oil, sun flower, jatropha curcas, residual oils and fats, etc) and with different technologies (cracking, transesterification, others) and purposes.

For these reasons, the Federal Government believes that producers should choose the best alternatives, duly supported by research, experiments and tests.

Thus, the PNPB does not exclude categories of economic agents, raw materials or technological paths, but rather relies on a rigid standard: biodiesel must comply with physical-chemical specifications established by the Federal Government by ANP, which is responsible for authorising the operation of biodiesel industries and for inspecting their production and commercialisation. Without meeting this quality standard, monitored and supervised by ANP with modern systems, such as the molecular marker, biodiesel may not be commercialised or mixed to mineral diesel.

9. What is necessary to produce biodiesel?

To produce and sell biodiesel in Brazil one must, in the first place, obtain authorisation from ANP (please refer to Resolution # 41/2004 for a full list of requirements).

Next, it is necessary to obtain registration with the Federal Inland Revenue Secretariat (SRF) of the Ministry of Finance, pursuant to Law # 11.116/2005, and Normative Instruction SRF # 516/2005.

Companies willing to receive the tax benefits associated to social inclusion and to regional development (generation of jobs and income for family farmers, particularly in the most poor regions of the Country), must additionally obtain the Social Fuel Stamp.

10. Legal and Normative Documents

The PNPB is based upon laws, executive orders and other legal and normative documents. The basic are listed below:

* Law # 11.097, 2005: defines biodiesel as a new fuel in the Brazilian energy matrix, establishes a mandatory mix of 2% starting from January, 2005 and of 5% in January, 2013, all over the national territory. Gives ANP the competence to regulate and supervise the production and commercialisation of biofuels.

* Law # 11.116, 2005: defines the federal tax model applicable to biodiesel (exemption or reduction of CIDE, PIS/PASEP and COFINS, per region, type of producer and oleaginous raw material).

* Normative Instructions SRF # 516, 2005, and # 628, 2006, which establish, respectively, conditions for the registration of biodiesel producers and importers and a special regime for the calculation and payment of federal taxes PIS/PASEP and COFINS.

* Executive Order # 5.448, 2005: establishes at 2% the percentage of the mix of biodiesel and authorises higher percentages for use in generators, train engines, boats and captive vehicle fleets.

* Normative Instructions MDA # 01, 2005 (establishes criteria and procedures for granting the use of the Social Fuel Stamp) and MDA # 02, 2005 (establishes criteria and procedures for including projects of biodiesel production in the mechanism of the Social Fuel Stamp).

* ANP Resolutions: Resolution # 41, 2004, which deals with biodiesel producers, and Resolution # 42, 2004, which deals with the commercialisation and inspection of biodiesel.

* Resolution BNDES # 1.135/2004: Creates the Program of Financial Support for Investments in Biodiesel, which provides financing for all stages of the productive chain (the program funds up to 90% of projects having the Social Fuel Stamp and up to 80% of projects without this characteristic).

Aiming to encourage the production of biodiesel while its mix with mineral diesel is not mandatory (until January, 2008), purchase auctions have been defined by ANP. These auctions are regulated by instruments issued by the following relevant bodies: the National Council of Energy Policy (CNPE), the Ministry of Mines and Energy (MME) and ANP, and only companies having the Social Fuel Stamp may participate in these auctions.

Four auctions have been held and 840 million litres of biodiesel were bought, benefiting about 205 thousand small farmers. Since the average final prices practised were decreasing, we have the first real indicator of compliance with the goals of the PNPB and of the tendency for biodiesel to become increasingly competitive vis-à-vis mineral diesel, occupying a growing space on the internal and foreign markets. More than 2000 filling stations supply B2 throughout the country.



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Sites on Biodiesel in Brazil:

www.biodiesel.gov.br

www.mme.gov.br

www.anp.gov.br

www.mda.gov.br

www.petrobras.com.br

