

Brazil's nuclear energy program is under fire but not defeated

by Mark Sonnenblick

Sharp revisions in Brazil's energy strategy for reducing its dependence on imported oil are now being fought out at the highest levels of its government. The press is full of suggestions that in view of the country's severe economic crisis, the government's ambitious plans for nuclear energy should be slashed.

But the absence of any campaign to explain the necessity of nuclear power to the public masks the amazing resiliency of the program. Military leaders—and important segments of the business community—still regard the rapid economic expansion explicitly linked to the nuclear program as a matter of national security. It is a crucial element in their hopes for building their country into a great world power and their plans for having sufficient energy to resolve the nation's gnawing social problems.

The intractable enemies of Brazil's ambitious nuclear development plan rejoiced when they learned General Danilo Venturini, chief military adviser to the President, had requested Brazil's foremost anti-nuclear scientist, Dr. José Goldemberg, to write up and submit his objections to the plan. *O Estado de Sao Paulo* editorialized Jan. 16, "The most important thing about the document lies not in the proposals made in it, but in the spirit which prevailed in its being requested and written. Up to now, the government has been taking an Olympian position, refusing to discuss and negotiate [with dissident scientists—ed.]. The arrogance and insensitivity of President Geisel (1975-79) brought about this absurd nuclear program. . . . With the present government, that intransigent attitude is changing."

This undercurrent of support is most visible in the caution shown by people who would prefer to scrap nuclear power. Rumors had it that the "Plan for Meeting Electricity Requirements through the Year 2000" prepared the state electricity entity, Eletrobrás, was being sat on by the government because of Eletrobrás' opposition to nuclear and coal-generation systems. Eletrobrás is headed by retired Colonel José Costa Cavalcanti, whose reputation as an efficient dam-builder could be his ticket to the presidency. Yet Cavalcanti was reported by the daily *Folha de Sao Paulo*, Jan. 15 to have assured reporters that, by the end of the century, Brazil will have

begun construction of more than the eight nuclear plants contracted from West Germany in the famous 1975 nuclear deal!

Even José Goldemberg, former President of the Brazilian fraternal body to the American Association for the Advancement of Science, felt compelled to spout nationalist arguments and defend the "concept" of Brazilian nuclear development, while condemning its practice. Goldemberg's report to General Venturini was released to the press by its real sponsor, Planning Minister Antônio Delfim Netto, Goldemberg's patron. Goldemberg concludes, "A more modest program, but one capable of bringing the country to dominate nuclear technology, could be accepted, as has happened in other countries." He calls for Brazil to "suspend" the German deal after building only two of the eight contracted plants and neither the contracted enrichment nor reprocessing plants. He demands the "firing of the directors of the present nuclear program." He even wants Brazil's spanking new nuclear engineering facility, built at a cost of over \$250 million to be the world's most modern, to be moth-balled.

Goldemberg cynically advocates "more" nuclear research in Brazil, "so that in future nuclear deals like the one signed with Germany, we can avoid having to import those technologies." If Brazil would have to re-invent nuclear technology, it's a safe bet that it would never again build those big, expensive, energy-producing plants.

They would not get very far with budgets such as the \$1 million per year which Goldemberg's associates at the University of Sao Paulo are asking to set up a thermonuclear fusion research center. Although the plasma physicists involved may be well intentioned, Goldemberg and the British who are "assisting" the fusion program promote it as an *alternative* to fission energy production.

Other enemies of nuclear energy, such as journalist Luis Alberto Bahia, facetiously inform the Brazilian military that "nuclear electric plants are one of the most expensive and roundabout routes to the secrets of the atomic bomb, which could be obtained more readily by putting the dissident atomic scientists back in the labs." On the contrary, it is doubtful that Brazil needs or seeks

the bomb.

Dr. Kenneth Erickson, City University of New York expert on Brazilian energy policy, told *EIR* "Brazil's bid for great-power status is fundamentally an *economic* bid. If they fail in the economic area, then nothing else matters. . . . Brazil's domestic economy is in a real mess. If I were an adviser committed to the idea of 'Brazilian grandeza' [greatness], I would say, 'Nuclebrás is a white elephant which raises our foreign debt. Let's cool it.' "

Delfim Netto hears much the same argument against nuclear power investments from the City of London. He has been blackmailed by the bankers, who insist on the triaging of nuclear energy as one of their conditions for, perhaps, allowing Brazil to borrow the \$17-20 billion needed to pay its bloated debt service this year.

Delfim has been put in a hand-to-mouth position by Brazil's creditors, who last year forced the country to shave expected imports by \$2 billion at the expense of an 11.9 percent drop in industrial production and loss of 300,000 industrial jobs in Sao Paulo alone. Important elections are scheduled for this November, which makes Delfim more anxious than ever to find a "quick fix" to ameliorate unemployment without requiring imports of goods or capital.

Gasohol gassed

Even the alcohol fuel program, the "quick fix" which Delfim championed two years ago as a device for replacing imported oil with home brew, has been severely cut. In this case, the Brazilians have learned at least part of the lesson which *EIR* has been quite alone in teaching since the \$10 billion scheme for Brazil to ferment sugar cane into automobile fuel was launched in 1977. "The 'renewable' fuel program now being implemented in Brazil is at best an extremely costly and totally inefficient non-solution to the energy crisis, and—at worst, a catalytic force for ecological, social, and economic disaster," argued *EIR* in our June 28, 1977 analysis of gasohol.

The inherent wastefulness of biomass energy (except as food) is now—five years later—getting through to Brazilian leaders in terms of the expensive subsidies it requires. Even when miserable \$3/day sugar-cane cutters replace diesel-burning machines in the fields, alcohol costs are roughly double gasoline to produce. And making it requires more energy than it yields. Delfim is balking at throwing his monetary budget further out of whack by having the taxpayers subsidize about half the total cost of alcohol production. It is, therefore, sputtering to a halt. No more new distillery plans will be accepted this year, and give-away state financing for approved projects will fall years behind commitments.

Automakers who spent well over \$100 million in 1980-81 retooling to make cars that run on pure alcohol now regret their incompetent investment. All the majors

suffered heavy losses in Brazil, normally one of their bright spots. Sales of the "alcmobiles" dropped from a sharp peak of 56,000 in November 1980 to only 4,000 in November 1981.

Why nuclear is so important for Brazil

Unlike the alcohol binge, the nuclear question is quite central to Brazil's development. Brazil signed with Germany in 1975 for a complete nuclear fuel cycle capable of generating 10,400 megawatts, based on the assumption that electricity utilization in Brazil would have to continue climbing by over 11 percent annually if Brazil were to pull herself out of backwardness to become a developed world power by the end of this century. Nothing has disproved that assumption.

What the "pragmatic" opponents of rapid nuclear development are demanding is that the goal of "greatness" be abandoned in favor of a more modest goal of "survival." They celebrate Brazil's mere 3.4 percent electricity consumption expansion last year—caused by the industrial decline—as a sign that Brazil "does not need" the added capacity offered by nuclear.

How would a Brazil with truncated industrial growth bring its vast impoverished population into the modern age? Dr. Charles Ebinger of the Jesuits' Georgetown University Center for Strategic and International Studies argued that such development was undesirable in his paper, "U.S./Brazilian Energy Relations: Prospects for the Future." Ebinger presented the paper as part of the festivities organized by his boss, Henry Kissinger in Rio in mid-November. (See *EIR*, Dec. 22, 1981). Ebinger urges the United States to help Brazil disseminate firewood-charcoal systems and "more efficient cooking stoves" developed by American AFD, since "these developments could also slow the rate of rural/urban migration and reduce the movement of people out of the renewable rural energy sector and into the modern energy sector. If such technology were diffused on a priority basis throughout rural Brazil, energy consumption could be reduced drastically in a very few years owing to the large component of cooking in the rural pattern of energy utilization."

It should not be surprising that Kissinger's Latin America energy expert, an advocate of such genocidal policies of energy *reduction*, also advocated in Rio that the Reagan administration continue Carter's policies of thwarting Brazil's development of "civilian nuclear technology, which also has weapons potential." Ebinger's provocative statements evoked angry responses from the Brazilians, who considered them in violation of the promise made by George Bush during his October visit to Brazil that the United State would neither help nor hinder Brazil's nuclear program for a year. Somehow, the Brazilians have the impression that Kissinger and crew represent the United States.