

Bagasse Falls Short in Electricity Auction
by Bob Moser

The rah-rah spirit surrounding sugarcane-based electricity took a punch to the gut in late August, when just 10 MW out of more than 330 MW from bagasse-fired power plants up for public auction were actually contracted.

Considered a lost opportunity by varying degrees, bagasse-fueled bioelectricity is still expected to sell in another public auction in December. But the fact that many analysts felt the rug was pulled out from under them after heading into this auction so optimistic about bagasse has cast doubts on cane's ability to grab a bigger piece of the Brazilian energy pie.

"It doesn't set us back, (Brazil) still has an energy surplus, but it's frustrating," said Mario Veiga Ferraz Pereira, president of PSR Consultoria, a 25-year-old energy consultancy that has advised projects in 40 countries. "It's as if you have this guy, he has a wonderful product. Everyone knows it. You make an arrangement for him to deliver the product, and the first day it doesn't arrive because he didn't wake up that morning. Next day, he says he had a flat tire. The next day it rains. People still believe in (bagasse-fueled electricity), the facts are obvious, but it is just a little bit frustrating" to not see producers commit to the public market.

Roughly 480 megawatts of cane bagasse-, elephant grass- and small-hydro power plants were included in Brazil's A-3 energy auction to replace oil-based thermoelectric generation, which took place on Aug. 27. Brazil holds these public auctions a few times a year in order to keep supply and prices stable throughout the consumer chain for years to come. Power distributors (like your local electric company) and big industry (like auto manufacturers) participate. The auction's name, short for "a menos tres," means this was electricity to be delivered three years from now, in 2012, at a price agreed upon now.

Nine of the 25 project applications expected to sell were for small hydro projects (107.8 MW); eight were for cane bagasse (336.4 MW); and one for elephant grass (33 MW). The rest were gas-powered, giving a total of 2.3 GW. In the end, 10 MW from one biomass power plant was contracted at R\$144 per MWh, and 1 MW from a small-hydro power plant. Analysts expected the demand at this auction to be low; most big buyers were in on an auction for 2012 electricity earlier this year, and had little capacity left they needed to fill.

There was still demand to be filled, but apparently some bagasse energy producers thought they could do better in private contracts than the R\$146 per MWh maximum price that opened this auction. Ferraz Pereira finds that laughable, given both Brazil's energy surplus and projections that Brazilians will use less electricity in the near future.

"I was excited for the auction, and was helping a lot of clients prepare for this. We thought the demand would be under 500 MW, which is considered low. The last (similar auction) was 1 GW. But we didn't expect it to be that bad," said Monica Rodrigues de Souza, coordinator of the thermal power and alternative sources team at Sao Paulo-based consulting firm Andrade & Canellas. "You must wonder what sense it makes to have this mobilization and only sell 11 MW."

In Brazil, renewable energies already provide almost 90% of the country's electricity, roughly 3% of which comes from sugarcane mills burning bagasse for their own power, and selling excess to electrical companies. The availability of the cane pulp should increase by 50% in the next five years due to expansion of the ethanol sector. By 2013, cane mills will supply 13% of Brazil's electricity, predicts Unica, the South-Center's sugarcane industry association.

More than 14 GW worth of projects had initially registered for the tender in June. Lack of demand, financing doubts for some companies due to the international economy, and stricter guidelines led to the steep drop in the numbers participating in the Aug. 27 tender.

Brazil must find a source to meet its capacity growth other than hydroelectric dams, which currently provide 85% of the country's electricity. As the country is nearly through yet another dry winter season, public debate has renewed over relying too heavily on a single energy source; one prone to failure if enough rain doesn't fall. Bioelectricity from bagasse couldn't be a more perfect secondary source for Brazil, because cane matures and is harvested during the winter months of May through September, when hydro dams diminish their water reserves.

One by one, oil-, gas-fired and small-hydro power plants dropped out of the A-3 auction as each faced unique barriers to participating. Oil was all but pushed out due to a law restricting their participation (in turn to promote alternatives), gas-fired plants couldn't get a quote from Petrobras on the price of natural gas until hours before the auction, and some in small-hydro felt the public price couldn't compete with a beneficial tax loophole their clients find through private agreements.

And so on the auction's eve, it seemed like bagasse-fueled power plants had a slam dunk on their hands. Yet again, one by one, these players fell out of contention. Brazil's molasses-thick bureaucracy delayed the paperwork of one bagasse plant from Bunge. Another declared, without warning, that the public price was too low. And other bagasse players crippled themselves through their own financing missteps in the past year.

National newspapers reported last week that the sugarcane industry has lost billions of reais using derivatives to protect themselves against exchange rates. Everyone was betting in favor of foreign currency, to protect themselves against Brazilian reais losing value. But Brazil's currency has been one of the healthiest in the world in the last six months, and strengthened to less than R\$1.80 per US\$1 in mid-August, after usually hovering around R\$2 to US\$1 in recent years (it's R\$1.88 to US\$1 today).

"They lost lots of money. Sugarcane people are not the most responsible, fiscal people on earth," said Ferraz Pereira, president of PSR Consultoria.

Outside investors may look beyond 2012 for real growth potential in Brazilian power demand. Not until December's auction will bagasse have another large-scale opportunity to gain ground in the Brazilian electricity market.