

Generation of Energy

CPFL's 19 PCHs - Small Hydroelectric Plants - were submitted to individual environmental review by the São Paulo Environmental Department, since they include units constructed prior to 1986, the year in which environmental standards were introduced for investments with a potential environmental impact.

As part of the environmental compliance process, a number of environmental programs are in progress:

- Reforestation with native tree species at the São Joaquim, Dourados and Lençóis plants, in the final stages of maintenance and self-sustainability
- Restocking of the rivers and reservoirs in the catchment areas surrounding the PCHs with 390,000 native hatchlings in 2003
- Environmental education through hydroelectric plant visits and support for the School Ship project in Americana, involving over 12,000 children.



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The new projects each have dedicated managers for environmental issues. CPFL Geração is responsible for co-managing these issues and ensuring that its environmental obligations are respected by the other project partners. Decisions are made by an Environmental Committee, composed of representatives from each of the partners plus the project's environmental manager. As the projects are still under construction, correct environmental management is essential for obtaining the requisite environmental permits for electricity generation. Environmental investments are substantial at this stage of the project. CPFL and its partners had made social and environmental investments in these hydroelectric projects totaling R\$117.1 million by the end of 2003, broken down as follows:

- Barra Grande: R\$ 72.7 million
- Campos Novos: R\$ 30.5 million
- CERAN - Rio das Antas complex: R\$ 11.5 million
- Foz do Chapecó: R\$ 2.2 million.

Planned environmental investments represent, on average, 14.2% of the total invested in new hydroelectric generation projects, including the cost of acquiring surrounding land areas, as shown in the following table:

Project	Planned Environmental Investment R\$ million	Total Investment R\$ million	%	Installed capacity/ flooded area
UHE Barra Grande	240.2	1,388.1	17.6%	732
UHE Campos Novos	100.1	1,322.9	7.5%	2675
Ceran Complex				
UHE Cerro Azul	20.2	211.6	9.6%	28.0
UHE Monte Claro	17.3	248.6	6.9%	92.86
UHE 14 de Julho	26.0	274.1	11.7%	20.0
Total Ceran	62.4	674.2	9.3%	
UHE Foz do Chapecó	300.7	1,573.7	19.1%	10.69
TOTAL	703.5	4,948.9	14.2%	

CPFL Geração is optimizing generation capacity at its PCHs through investments in modernization and re-powering, which, added to its own reforestation activities and those of its affiliate companies, generates potential for carbon credit sales. CPFL is in the process of signing a cooperation agreement with UEP - International Utility Efficiency Partnerships to find opportunities for such sales.