Sustainability action · Project Renewable Energy and Energy Efficiency

Arrozal-Guarai Fuel Switch Project, Brazil

Six ceramic factories are using renewable biomass from agriculture to replace heavy crude oil from endangered ecosystems.

Project

Each factory has been retrofitted to enable sustainable biomass, waste wood and sawdust to be burned as fuel to heat the brick kilns. Using sustainable biomass, often from waste products that would find no further use, reduces the pressure on this important natural resource. Prior to the investment in fuel switch technology, heavy fuel oil was used as the fuel source. Fuel oil is a fossil fuel derived from petroleum, which releases soot causing damage to the respiratory system when burnt. Furthermore, it is a highly polluting fuel and contributes significantly to global warming. Faced with this challenge, the ceramic factories decided to switch from oil to renewable biomass.

The ceramic factories employ full time staff from the local areas, and provide employment benefits such as health insurance, food staples and awards for performance. In addition, investments are made in education and capacity building courses, such as providing computer literacy lessons for employees and their relatives. Some of the facilities have also implemented additional sustainability initiatives such as reducing residue and energy consumption, and the recovery of clay extraction areas through the replanting native trees and grasses. By supporting local communities and generating jobs, the project is also contributing to sustainable development in the region. The engagement in socio-economic improvements earned the project a sought-after Social Carbon (SC) label, in addition to the Verified Carbon Standard (VCS). Investment in technology representing best practices in the sector, such as higher efficiency kilns and automation of the production process.

Checklist	Additionality and permanence	3rd party verified	Transparency	Annual CO_2-reduction	Social and environmental benefits	Marketing material
Project 301 758	According to the rules of the CDM and VCS (pre-CDM VERs)	By Bureau Veritas	Provided by Markit Registry	55,000 tCO_2e	As documented in our database	High resolution pictures available

1143EN, 08.2015

Location

This fuel switch project is located at six brickworks in the state of Rio de Janeiro in Brazil. Tropical forests used to cover more than 90% of the territory of Rio and the factories are located near to the threatened Atlantic Rainforest.

Project achievements

Socio-economic impact

- As a corporate social responsibility strategy, the ceramic factories employs large amount of women to work in the production process. Employing women is bringing us excellent results
- The factories also took on disabled people and ex-convicts, helping the latter to gain a foothold in the job market.
- Building materials and funding donated to local schools.
- Donation of 150 basic food rations to victims of landslides in Teresópolis in 2011.
- Access to new markets for the ceramic products was created.
- Funding of the Casa Equiiibrio Institute, which offers alternative therapies, psychological and social assistance to addicts and people suffering from depression. A therapy room for children was also created.
- Literacy and basic education courses offered to young adults from the community.
- Housing provided for approximately 20 workers.
- Sponsorship of community sporting activities, and the renovation of the local public sports ground.
- The project offers a vegetable-garden course for the workers and the community.

Environmental impact

- Installation of systems for water collection and residual oil collection from the production process reduces waste.
- Chimney height increased to reduce concentration and improve dispersion of pollutants.
- All ashes from the production process are reused to Seal the kiln doors.
- Residues from the production process are, donated to local communities and are used for patching up roads.
- Ashes from the brick-firing process are reused in production to avoid air, water and soil pollution.
- Rainwater used in the production process.
- Reduces emissions by displacing heavy fuel oil traditionally used to heat brick kilns at ceramic factories.
- Improves the local environment by decreasing air pollution.

VCS | VERIFIED CARBON STANDARD

thesouthpolegroup.com/projects

Andrea Rumiz
Director Key Accounts

Phone +41 43 501 35 50
sales@thesouthpolegroup.com