



Facts and figures

Vale – the company

- Created by the Brazilian government in 1942
- In 1997, became a private company and achieved an export record of 7.8 million tons
- Based in Brazil, with more than 115,000 people working in five continents
- Second-largest mining company in the world
- Vale explores for, produces and sells iron ore and pellets, nickel, copper, coal, bauxite, alumina, aluminum, potassium, kaolin, manganese, ferro-alloys, cobalt, platinum-group metals and precious metals
- Also operates in the logistics, energy and steelmaking sectors

Iron pelletizing operations

- Iron pelletizing is the process used to transform very fine iron powder into pellets. This enables the use of particles considered too small for direct use by customers.
- Vale has pelletizing plants in operation in Brazil and in China
- In Brazil, these plants are concentrated in the states of:
 - Espirito Santo (Vitoria site) – 7 plants and a new one under construction
 - Espirito Santo (Ubu site) – 3 plants (50-50 joint venture between Vale and BHP)
 - Minas Gerais (Fabrica and Itabiritos site) – 2 plants
 - Maranhao (Sao Luis site) – 1 plant
- In Oman, Vale is building a pelletizing plant to produce 9 million tons per annum (mtpa) of direct reduction pellets, and a distribution center capable of handling 40 mtpa

Vitoria complex

- Includes 7 plants with a total annual production of 26 mtpa of iron ore pellets and 1 harbor facility
- Two of the plants owned solely by Vale; others established as joint ventures with Spanish, Italian, Japanese and Korean companies
- Pelletizing plant 8 to start production in 2012 with capacity of 7.7 mtpa of iron ore pellets

ABB's offerings for the Vitoria site

- Automation modernization project

- In 2000, ABB supplied six plants with control systems such as operator panels and various production controllers from its process automation portfolio
- Scope of supply included engineering, manufacturing, delivery, installation, testing and commissioning for all lines
- An upgrade for plants 1 and 2 is underway with System 800xA and AC800M controllers

- Electrical modernization project

- In May 2010 ABB received an order for electrical modernization of plants 1, 2 and 7 and utilities as required by the Brazil government's NR 10 industrial safety standards. Scope of supply includes distribution panels, distribution and motor control centers, distribution power transformers, automation panels and software for substation control and supervision, assembly, commissioning and training
- Plants 3, 4, 5 and 6 will also undergo electrical modernization in the beginning of 2011
- For the port of Vitoria, ABB supplied complete electrical and automation system for the grab ship unloader 4 (DN04) in 1995 and also electrical solutions for the grain terminal in 1997.
- In December 2008, ABB got an order from Vale for electrical modernization of Port Vitoria; the project is expected to be completed by the end of 2012.