

ABB success in Vietnam

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One of the new directives for the Vietnam Cement Industry's business plan in 2009 is to research and find opportunities for exports. Up until 2008 Vietnam had been a sizeable importer, particularly clinker, but today the situation is changing and producers are having to look more closely at costs, plant efficiencies and customer needs in order to remain competitive.

The 2.3Mta cement plant at Cam Pha, Vietnam



Quang Ninh province is in northern Vietnam, where its Ha Long Bay is well-known as a World Heritage site. It is bordered by China in the north and surrounded by the sea in the east, linked with Cai Lan international port. Enjoying this geographical advantage both projects have the target to become one of the biggest producers by utilising high quality local supplies and services. They are also expected to set the highest standards of environmental compliance.

ABB was selected for the projects due to its proven experience with the previous cement projects like Holcim, Song Gianh (Cosevco) and others where ABB equipment has shown the ability to operate stably while substantially saving power and with low environmental impact.

ABB's role

ABB Vietnam has nearly 600 local employees with five facilities located from northern to southern Vietnam.

The project team including the sales and engineering staff started to build a strategic approach to Vietnam cement customers since 2000, supported by the

Eighteen new cement projects will be completed in Vietnam and put into production over the near-term horizon, bringing the total production capacity of Vietnam's cement industry to 60Mta. Statistics also show that local cement production could reach 45-46Mta in 2009. Meanwhile, total consumption in 2008 was measured at 39.1Mt and increased by 7.7 per cent compared to 2007. Local demand is forecast to rise up to around 42Mt this year despite some market uncertainties, aggravated by the recent global economic downturn

From the point of view of investors, such circumstances have not yet deterred them from participating in the local market, but with a changing scenario now evolving, a more cautious approach is needed along with the requirement that equipment suppliers and contractors need to be of the highest calibre to ensure that projects meet customer and market expectations.

Investment

ABB continued its market penetrating approach by participating in the two biggest cement plants out of the total 10 projects put into operation in 2008.



Vinaconex is behind the investment in Cam Pha, Vietnam



Raw material being off-loaded at Cam Pha, which began production in March 2008

Centre of Excellence for the Cement Industry in Switzerland. Over time, a solid relationship has gradually been built with mutual understanding, support and trust.

Understanding the customers, providing the most effective solution to the right process and delivering what has been contracted for are what ABB has now successfully done for these large Vietnamese cement projects.

Cam Pha cement plant

The plant is designed to produce 6000tpd of clinker annually (2.3Mta).

The project investor Vinaconex (Vietnam Construction & Import Export Corporation) awarded the bid to ABB Switzerland, essentially for electricals and control equipment, in late-2004. The €12m contract came into effect in early-2005 with a time schedule of 28 months.

The complete plant project was realised by local suppliers and within five packages (separate contracts) for mechanical and process equipment, Kawasaki Heavy Industries (KHI) – Japan, FAM – Germany, Loesche – Germany, Haver & Boecker – Germany and for the electrical and control equipment (ABB) as related to the four mechanical packages. KHI took over coordination of the packages.

As noted, ABB scope of supply was electrical and control equipment which included HV-switchgear, MV-switchgear, LV-switchgear, motor and drives (including a larger amount of variable voltage-variable frequency-drives), control system, cables and auxiliary equipment, plus related engineering, technical documents and technical services. For the local part, ABB had to support the customer with engineering, procurement, testing and inspections during the start-up period. The local portion included the main supply (110kV/6.3kV) installation materials and infrastructure.

Under the tight schedule, a project team was established between ABB Switzerland and ABB Vietnam with the implementation stages involving several local mechanical process equipment partners.

After the plant became operational in March 2008, the electrical and control equipment of ABB has proved to be highly

reliable through its stable performance and energy efficiently.

Thang Long Cement plant

Thang Long Cement Joint Stock Company signed a turnkey contract with the main contractor Polysius, Germany, to build a cement clinker production line of 6000tpd capacity. Polysius and ABB worked together on a cooperation agreement where ABB took over the full responsibilities for electrical equipment, instrumentation, cables, related engineering, documentation and technical services.

ABB's portion had the total value of approximate €12m and was scheduled to be implemented within 32 months, starting in the beginning of 2005.

First, ABB started to install the MV-switchgear, LV-switchgear, motors and



The giant preheater tower at Thang Long Cement, Vietnam

drives (consisting of a larger amount of variable voltage-variable frequency-drives). The control system components (industrial) allow continuous monitoring with a high degree of flexibility of the displayed data. The ABB control system interface to field devices, low voltage switchgear, speed variable drives and instrumentation is realised through a bus system network providing yet another access to valuable information that can be used in the ABB Knowledge Manager (management information system) for various uses from the maintenance level to the upper management.

These advanced features are highly appreciated due to the capability to facilitate a user-friendly management system, efficient energy consumption and high stability. For the local part related to the electrical equipment, ABB supported the customer with engineering, procurement, testing and inspections during the start-up period, plus the design for electric stations of 110kV and 6.3kV.

The ABB project team (including ABB Switzerland and ABB Vietnam) was present at the inauguration ceremony of Thang Long cement plant on December 24, 2008. They were very honoured to share with the customer their initial success. In

ABB played a key role in supplying the Thang Long Cement plant with switchgear, drives, control system, Knowledge Manager and electrical equipment



his opening speech, the director of Thang Long Cement proudly mentioned that Thang Long Cement had invested in a world state-of-the-art production line that can produce high-quality products at a competitive price as the applied technology can ensure low operational cost with least contaminated dust to the environment.

Investment return is obviously considered as the bottom-line target of any investment project. Cement investors in Vietnam nowadays have the similar advice that choosing the right partner to

come up with optimal solutions for the specific project is the key to success in this market.

Such successful cooperation with Cam Pha Cement and Thang Long Cement have contributed to the upcoming orders for ABB products and know-how to be supplied to the ongoing cement projects of Thai Nguyen, Ha Tien II, Phu Huu and Binh Phuoc – showing the evidence that ABB has truly become an excellent partner and leading equipment supplier in the Vietnamese cement industry.

Thang Long Cement plant's inauguration ceremony was held in December 2008

