Vol:11 | Issue:5 Energy,Utilities & Power

UNASOL AQUECIMENTO SOLAR

Sunny Days Ahead

In a world where concern for resources is growing, economical and environmentally friendly solutions are welcome. This is exactly what four engineers created when they founded Unasol in Santa Catarina, Brazil. Company President José Augusto Lawisch shines some light on the subject of modern solar power and Unasol's success. Reuben Ford reports.

One of the leading countries in the development of technology for alternative sources of energy is Australia. The sun's rays are used to generate power all over the country and recently the Australian government launched a project that delivers electricity to Aboriginal inhabited regions, using both solar and wind power. Unasol President José Augusto Lawisch spent two years studying engineering in Australia, an experience that he considers invaluable to his position as one of the founding members of Unasol.

"In fact there are two forms of solar generated power," explains Lawisch. "The first uses the sun's rays and transforms them directly into electricity and the second uses them to create heat." Unasol manufactures solar energy systems for water heating, which include the ray collectors, or panels, and water storage cylinders.

The company has been operating since 2004, and over the last four years has seen a staggering increase in sales. In the first year of business Unasol grew by 25 percent, a figure that jumped to 95 percent in 2007. Today, the success of the company's products is showing no sign of slowing down, and Lawisch is confident that the end of the financial year 2008 will bring record growth, exceeding 100 percent.

SOLAR SUCCESS

Unlike most Brazilian success stories, Unasol does not attribute its growth primarily to the surge in the country's economy. "Over the last two years the attitude towards solar energy in Brazil has become more favorable," says Lawisch.

In many states, particularly in São Paulo and the south of the country, state governments are implementing incentives encouraging the use of solar power heating systems. Says Lawisch, "In many cases the actions taken by authorities are so strong, that construction companies are virtually obliged to install systems in new buildings." In Marília in São Paulo state, for example, a study of a commercial building or apartment block is conducted in relation to the number of bathrooms. If solar power has the ability to supply 40 percent of the property's estimated hot water consumption, it must be installed by law. "These buildings also have electricity and gas from conventional sources, which automatically supply hot water as a backup if our system is overloaded," explains Lawisch.

According to DASOL (Brazilian Department of Solar Heating), a similar law recently passed for São Paulo city will mean the installation of over 40,000 square meters of solar panels and save the country $35 million in energy consumption.

EXCLUSIVE INNOVATION

Another significant reason for the sharp growth in 2007 was the introduction of the Diamante system, which was previously unavailable to the Brazilian market. As a pioneer in the industry, Unasol is importing parts from Australia and producing the equipment in Brazil. "The Diamante is completely different from other models," explains Lawisch. "Not only does it use revolutionary technology and is much more efficient, but it also requires a smaller surface area, around 50 percent less space, than conventional systems."

In fact, the Diamante comprises the very latest materials, has an innovative collection system and is a more effective thermal insulator than polyurethane. The panels are also mountable on vertical surfaces, allowing easier and more practical installation. The system, which is only available through Unasol, has the capacity to heat water to 100 degrees Celsius, almost 100 percent more than other units which peak at 55 degrees Celsius.

The Diamante was presented at the annual FEICON trade fair in April 2008 in São Paulo, and received an extremely positive response.

THE LATEST

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In addition to new laws and products, growing environmental awareness has been a driving factor in Unasol's expansion. "We are in the middle of widespread concern for the environment," says Lawisch. "With more and more people taking notice of such issues, we have an excellent platform for sales."

The company is based in São José, a town close to the capital of Santa Catarina, Florianópolis. The 700-square-meter plant has a staff of 20 people. The recent success of the company led to the inauguration of a second unit in Bahia: the first solar energy system factory in the region covers 750 square meters and employs 40 people. With representatives in most Brazilian states, Unasol employs approximately 250 people in total.

Both the Santa Catarina and Bahia facilities manufacture the same products, intended for different market regions. The only difference is that the Diamante is currently assembled only in Bahia. Lawisch reveals however, that through a partnership with Australian company Apricus, Unasol will begin manufacturing the equipment in Bahia in the very near future.

COLD SHOULDER FOR THE COMPETITION

The systems are sold, not to the end user, but to stores and specialists. Occasionally, in a bid to ward off competition, Unasol sells to large clients directly from the factory, although this is rare. "We have many competitors who have been in the market for more than 20 years, and whose systems are outdated and less efficient than ours," says Lawisch Aside from being the exclusive supplier of the Diamante, Unasol is also the only company that specializes in supplying the south of Brazil. "In the south there is less sun and temperatures are colder than the rest of the country," he explains. "As a result, our equipment is stronger and more resilient, and the thermal insulators more sensitive to heat."

Unasol purchases 90 percent of materials for manufacture in their raw state. The remaining 10 percent are components such as thermostats, which are bought from specialists. The main raw materials are sheet steel, copper tubing, roles of aluminum, glass and polyurethane. The majority of these products come from industrial capital São Paulo, although Lawisch estimates that around 30 percent are attained from suppliers in Santa Catarina.

Unasol equipment can be found "wherever there is a hot water need," says Lawisch. In Rio Grande do Sul, an industrial kitchen uses Unasol solar power to heat water, for example. Aside from more obvious commercial and residential applications, the flexibility of the system means it has even been used in abstract situations such as heating larvae tanks on a shrimp farm.

The use of the sun to heat water is particularly popular in housing projects for the less privileged, due to the comparatively low costs involved. In the Northeast of Brazil, Unasol has already installed systems without the electric back up used in the south. Generally, those living in warmer temperatures and with lower incomes can survive on the sun alone to heat water. Following this principle, Unasol has also supplied systems to Africa.

Today, the overseas market accounts for 8 percent of Unasol's revenue, although Lawisch predicts that this will increase greatly in the future. "We are currently in negotiations with representatives in Central and North America to certify and market the product there," he confirms. In addition to Brazil, Unasol already supplies Argentina, Uruguay and Angola.

Unasol is a company of the future, with the impressive growth rate and sales figures. A pioneer in the industry, the company offers efficient solutions to a variety of markets. International partnerships and technology are not only revolutionizing energy sources, but making them more economical, proving Unasol's solar heating systems are one of the best solutions under the sun.

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