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To Conquer Wind Power, China Writes the Rules

Doug Kanter for The New York Times

A worker entered a nacelle under construction at the Gamesa wind turbine factory in Tianjin in October.

By KEITH BRADSHER
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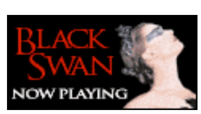
TIANJIN, China — Judging by the din at its factory here one recent day, the Spanish company Gamesa may seem to be a thriving player in the Chinese wind energy industry it helped create.



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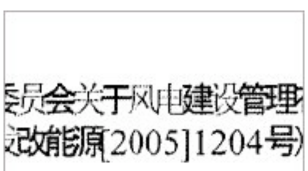

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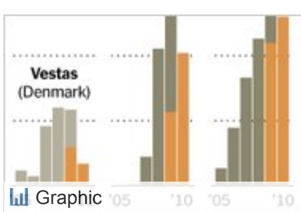

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Wind Turbine Makers in

But Gamesa has learned the hard way, as other foreign manufacturers have, that competing for China's lucrative business means playing by strict house rules that are often stacked in Beijing's favor.

Nearly all the components that Gamesa assembles into million-dollar turbines here, for example, are made by local suppliers — companies Gamesa trained to meet onerous local content requirements. And these same suppliers undermine Gamesa by selling parts to its Chinese competitors — wind turbine makers that barely existed in 2005, when Gamesa

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Employees at work on wind turbine hubs at the Gamesa factory in Tianjin, China, in October.

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controlled more than a third of the Chinese market.

But in the five years since, the upstarts have grabbed more than 85 percent of the wind turbine market, aided by low-interest loans and cheap land from the government, as well as preferential contracts from the state-owned power companies that are the main buyers of the equipment. Gamesa's market share now is only 3 percent.

With their government-bestowed blessings, Chinese companies have flourished and now control almost half of the $45 billion global market for wind turbines. The biggest of those players are now taking aim at foreign markets, particularly the United States, where General Electric has long been the leader.

The story of Gamesa in China follows an industrial arc traced in other businesses, like desktop computers and solar panels. Chinese companies acquire the latest Western technology by various means and then take advantage of government policies to become the world's dominant, low-cost suppliers.

It is a pattern that many economists say could be repeated in other fields, like high-speed trains and nuclear reactors, unless China changes the way it plays the technology development game — or is forced to by its global trading partners.

Companies like Gamesa have been so eager to enter the Chinese market that they not only bow to Beijing's dictates but have declined to complain to their own governments, even when they see China violating international trade agreements.

Even now, Gamesa is not crying foul — for reasons that are also part of the China story. Although the company's market share in China has atrophied, the country's wind turbine market has grown so big, so fast that Gamesa now sells more than twice as many turbines in China as it did when it was the market leader five years ago.

So as Gamesa executives see it, they made the right bet by coming to China. And they insist that they have no regrets about having trained more than 500 Chinese machinery companies as a cost of playing by Beijing's rules — even if those rules have sometimes flouted international trade law. It is simply the table stakes of playing in the biggest game going.

"If we would not have done it, someone else would have done it," said Jorge Calvet, Gamesa's chairman and chief executive.

Gamesa, an old-line machinery company that entered the wind turbine

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business in 1994, is a modern Spanish success story.

Its factories in Pamplona and elsewhere in Spain have produced wind turbines installed around the world. With sales of $4.4 billion last year, Gamesa is the world's third-largest turbine maker, after Vestas of Denmark, the longtime global leader, and G.E.

With its relatively low Spanish labor costs, Gamesa became an early favorite a decade ago when China began buying significant numbers of imported wind turbines, as Beijing started moving toward clean energy. Gamesa also moved early and aggressively to beef up sales and maintenance organizations within China, amassing 35 percent of the market by 2005.

But Chinese officials had begun to slip new provisions into the bidding requirements for some state-run wind farms, requiring more and more of the content of turbines to be equipment produced within China — not imported.

Those piecemeal requirements soon led to a blanket requirement. On July 4, 2005, China's top economic policy agency, the National Development and Reform Commission, declared that wind farms had to buy equipment in which at least 70 percent of the value was domestically manufactured.

"Wind farms not meeting the requirement of equipment localization rate shall not be allowed to be built," stated the directive, known as Notice 1204.

1 | 2 | 3 NEXT PAGE »

Next: How China's influence is felt in the American wind industry.

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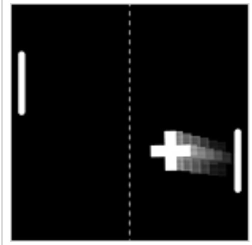

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