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Expert handicaps where Tesla might put the gigafactory battery plant, and why



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Wednesday, Tesla shocked the world by saying that there would be not one, but *two* sites chosen for the "gigafactory," a stupendously large battery factory that is expected to bring 6,000 jobs and countless economic benefits to the region eventually chosen for it.

Having two factories, Tesla CEO [Elon Musk](#) said, would help the company hedge its risks for the potentially very risky proposal of building a \$4 billion to \$5 billion manufacturing facility in the continental U.S.

But at least one person wasn't surprised at all. [John Boyd Jr.](#), principal at the site selection firm the Boyd Company Inc., said this was exactly what he was expecting Tesla to announce because it lets the company keep details about the project confidential as it moves forward — and play the two potential sites off of each other to secure better concessions from the local governments.

It's a common tactic for smart companies looking to place a high-profile facility, and Tesla has been extremely savvy with the process so far, Boyd said. Although his Princeton, NewJ, firm is not involved in the Tesla project, it's a leading site selection consultancy, having helped place facilities for customers including **PepsiCo**, Chevron and **Hewlett Packard**.

Although Tesla has selected four states that might be in the running for the plant, Boyd said that only two really made sense — Reno, Nevada, and San Antonio, Texas. Here's what he had to say about each site's strength and weaknesses, and what it would mean if Tesla chose to go there.

Tesla didn't immediately respond to a request for comment.

Albuquerque, New Mexico

New Mexico was always a bit of a longshot for one reason — unlike the other possible locations, it's not a right-to-work state. That means New Mexico's laws are generally more favorable to factory worker unions. In general, that means higher labor costs.

New Mexico also doesn't have a large native workforce, although Boyd doesn't think that's as big a deal as some other people who have looked into it — something as big as the gigafactory is very much an "if you build it, they will come" sort of situation.

So why was the state even in play? Simple, Boyd said: Franchise laws. New Mexico is one of the states where Tesla is facing legal troubles over its controversial direct sales model, so the gigafactory might have been a carrot to get the government to the negotiating table. Tesla *was* able to sponsor a bill that would have amended New Mexico's franchise laws to allow direct sales, but it was defeated in the state assembly.

Phoenix, Arizona

Arizona has a few advantages over its neighbor to the West — it is a right-to-work state, it has no corporate income tax, and the state has put together a good set of incentives, modeled after those of Texas, which are among the most aggressive in the nation. But while Arizona is good in many respects, it also doesn't stand out, which is a weakness against very strong competitors like Nevada and Texas.

"To the governor's credit, the state as put together a very good set of incentives. They've really streamlined their process," Boyd said. "But it's just not quite as good as Texas. Next to Texas and Nevada, it's probably a third choice."

Reno, Nevada

Nevada's advantages are geographic: It's the closest site to Tesla's existing plant in Fremont. More important, it has something that no other location has — a direct connection to Fremont by rail. Reno has a rail interchange that makes it ideal to ship the batteries by train, and that could save Tesla millions in shipping costs, Boyd said.

"When you look at overland shipping costs, we're expecting costs-per-gallon for fuel to hit \$7 a gallon very soon," Boyd said. "Rail is like a third of that cost. And it's green, which is something Tesla cares about."

Northern Nevada also has a mineral advantage: It's the most lithium-rich area in the country, and it sports the U.S.'s only currently operating lithium mine. Given that Musk has said he wants to source all of his lithium domestically, it's impossible to overstate what having the plant in Reno does to simplify Tesla's supply chain.

San Antonio, Texas

The Texas site is the leading contender, Boyd said, because it's basically the total package. It's a right-to-work state. It's got no corporate income tax, a large and diverse workforce, as well as an existing automotive industry (which aids in finding and retraining the types of workers Tesla needs). Plus, it has put together a very good package of enticements to bring business to the state, and Boyd says the governor has a very personal stake in bringing the Gigafactory home.

"(Texas) Gov. [Rick Perry](#) is out of office right now, and this will be his last vanity project he brings to the state," Boyd said. "You know he'll move heaven and earth to get this deal done."

Taken as whole, all that makes Texas probably the best state in the union to locate a manufacturing facility in, Boyd said. But San Antonio has one other under-the-radar attribute that

makes it ideal for Tesla in particular: The port of Houston. The proximity of a major seaport means that the Texas location is ideal if Tesla wants to pursue an aggressive strategy of exporting batteries to Asia. (And remember, it already has partnerships with big Asian manufacturers like Panasonic.)

If Tesla chooses Texas, which is ideal for shipping overseas, over Reno, which is ideal for shipping to Fremont, that could be a sign of how aggressive it plans to be with its export strategy.

BONUS: California!?!

Don't get too excited, but Boyd also said he'd heard rumblings that Tesla was still in talks with Gov. [Jerry Brown](#) about keeping the factory in California. That is surprising news, since the state was reportedly disqualified fairly early in the process because of taxes and labor cost concerns.

At this point, California would still be the darkest of dark horses in this race, but Boyd said it was not totally inconceivable that the factory could stay in California, if Gov. Brown came up with a truly stellar enticement package.

The state does, after all, have some inherent advantages that the other states lack — it's the same state as Tesla's headquarters, has excellent access to Asia in the event that Musk wants to start exporting batteries, and doesn't have the workforce sourcing problems some of the other states have.

But as with anything in the factory selection process, it's hard to say how serious Tesla actually is about the California site, and how much it's simply playing politics. Boyd said that Musk might simply be using the gigafactory as a lure to keep negotiations going with the state, in the interest of eventually wringing concessions out of it that might help it in other business ventures.

"[Elon Musk](#) is playing chess here, and he's very good at it, no question about it," Boyd said.

(Edited by: Baumann, Lynch)

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