

Contract Diligence Is Key Amid EV Facility Construction Boom

By **Chris Caputo** (June 13, 2022)

The electric vehicle and EV component industry is poised to change the way we move, just as iPhones have changed how we interact.

At the end of 2021, 55 models of electric vehicles were available for purchase in the U.S. By 2024, that number is projected to exceed 100.

While precise estimates vary, a 2021 KPMG International survey of global automotive executives reflected that 52% of vehicles sold by 2030 will be electric and that the Biden administration's ambitious goal that half of U.S. domestic automobile sales by that date be electric is, in fact, achievable.



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For electric vehicles to challenge combustion engine vehicles within this timeframe, EVs will need to be produced at a breathtaking pace. For this reason, a construction boom has begun to support the facilities in which EVs and their components will be manufactured across the United States.

The construction of an electric vehicle manufacturing facility is a uniquely complex undertaking with potentially mammoth financial risks to the manufacturer. Because a manufacturer locating a project in a given state will likely have been lured there with financial incentives and possibly even free land, the design and construction of the facility may be the first time that the manufacturer advances substantial amounts of its own money in the process.

That investment, which may exceed several billion dollars, does not represent the end of the manufacturer's risk in connection with the construction process. No matter how well a manufacturer compensates its design and construction teams, it will not be insulated against costly change orders, delays in completion, and future interruptions in production due to errors committed during design and construction.

A manufacturer building a production facility should therefore consider the negotiation of its design and construction contracts to be a crucial investment of time and resources and must allow sufficient time for the procurement and negotiation of design and construction services to unfold.

The negotiation of such contracts is not a mere formality concluded in a matter of days. Because no two projects are exactly the same, no sophisticated owner or contractor would ever expect two contracts to be identical. Forms are starting points, not contracts. Good contracts will address the risks that are unique to the project.

Manufacturing projects have a different risk profile than hospitality projects, for example, and electric vehicle and EV component facilities pose different risks than other manufacturing projects. This article endeavors to briefly discuss a handful of specific considerations that will be relevant to the increasing numbers of electric vehicle battery and component manufacturers flooding the country.

Time risk is different.

The automotive industry is renowned for just-in-time delivery and tight original equipment

manufacturer, or OEM, requirements. As there are relatively few potential clients for higher-tier component manufacturers, OEMs are understandably vested with immense leverage over their suppliers.

The failure of a component supplier to timely provide needed parts to an assembly facility disrupts the OEM's manufacturing process and will cause immense financial loss, the risk of which OEMs will have likely shifted to the supplier. Component manufacturers are therefore under tremendous pressure to complete their projects and start production on schedule.

Adequately shifting delay risks in the electric vehicle industry to a contractor or design builder, however, is easier said than done. A disruption to an OEM's production caused by a manufacturer's failure to timely supply components causes more damage, and potential financial risk to the supplier, than the manufacturer can possibly pass on to the contractor or design builder based on the typical and customary expectations of the construction industry.

Rightly or wrongly, the contractor or design builder is likely to resist taking on the burden of consequential damages in its contract — and financial loss due to a delay in project completion is likely to be considered a consequential damage. In that case, the manufacturer's only potential remedy for a contractor or design builder's failure to timely complete construction of the facility is liquidated damages.

Liquidated damages are damages to be assessed by an owner against a contractor for project delay on a daily, weekly or monthly basis. They replace an owner's actual damages because such damages are difficult to calculate.

While contractual liquidated damages are supposed to be an accurate reflection of the actual damages that an owner would suffer and simply remove the owner's burden of proving such damages at trial, as discussed below liquidated damages are often negotiated as a modest penalty provision that allows an owner to charge an arbitrary amount for a project delay that is acceptable to the contractor or design builder.

Of course, few contractors or design builders are willing to bear the actual burden of project delay that a manufacturer suffers.

Even if a contractor is reluctant to bear the full financial risk of its own delay, manufacturers should propose contractual liquidated damage amounts that reasonably approximate the damages that they will suffer in the event of project delay.

Faced with these proposed damages, the contractor can of course counter with a smaller amount or instruct the manufacturer that it will require a higher fee to accept the manufacturer's proposal. From this point, the final liquidated damage figure can be negotiated. The manufacturer gains nothing, however, by initially proposing a number that is unrealistically low.

Equipment line incorporation creates unique risks.

On nearly every manufacturing construction project, the most critical element of the facility — the production equipment line — is designed and/or procured separately by the factory owner.

Conceptually, we often consider the factory building as a box that is wrapped around the production equipment and the building systems as utilities to feed the production line.

If the building systems are not properly coordinated with the production equipment, the project will be delayed and be made more costly as design changes are needed, and the contractor is forced to tear out work in place, resequence its ongoing work and add labor to try to maintain schedule.

Every EV-related construction project faces the risk of costly delays, disruptions and change orders associated with the coordination of the building and the critical production line.

Electric vehicles represent a transformational shift in mobility, and the technologies used to create those vehicles are likewise new and, from the manufacturer's perspective, proprietary and confidential.

Manufacturers are hesitant to disclose details about their production line earlier than necessary, and in some cases the design and layout of the production line remains a work in progress when the manufacturing facility is being designed.

This naturally gives rise to a risk of coordination issues because the building systems that support the line must be located according to the specified needs and precise dimensions of the equipment.

If the equipment is moved or its utility needs change, the contractor's scope of work will change and, if the equipment change has not been conveyed timely, the contractor may tear out its existing work and modify it. Each of these events will cause the owner's costs to increase and may cause the completion of the project to be delayed, costing the manufacturer even more money.

There may be no way to fully eliminate the risk of coordination issues between the building design and construction and the incorporation of the production equipment. However, it is a risk that both manufacturing owners, the design builders and the contractors, should address as early as possible, preferably at or prior to contract negotiation.

In most cases the risks will be more manageable if the manufacturer discloses its production line specifications and layout as early as possible. This will take many manufacturers in the electric vehicle industry out of their collective comfort zone, but the risk of disclosure of these specifications to competitors is quite low.

Information conveyed on a complex manufacturing project can, should, and almost certainly will be treated as confidential by contract. Perhaps more importantly, the contractors and design professionals vying to work on electric vehicle facilities know that they would find themselves disqualified from future work if they were known to have disclosed confidential information about a prior project to a third party.

On this point, therefore, EV and EV component manufacturers can reasonably trust their contractors and offer details on the technical specifications and precise layout of their production line as early as reliably possible.

Incorporation of clean-room/dry-room technology is accompanied by certain unique risks.

An electric vehicle or EV component manufacturing facility will require a dust-free production area that meets clean-room standards with additional temperature and humidity controls, making it a dry room. Those standards can be necessarily stringent because if

foreign particles are introduced into a battery, for example, during its assembly, the battery may malfunction during use, perhaps catastrophically.

Creating a dust-free environment is more difficult than one may think. In addition to providing for environmental controls for workers entering the clean room, the facility owner must account for more hidden perils, such as the creation of airborne particulates from metal-to-metal contact of the production equipment or the indoor cranes used for moving equipment and material in the production area.

In a facility in which the building systems are designed by the architect or design builder and the equipment is designed by others, the contracts in place should specifically delineate which party is responsible for ensuring the clean-room environment. More fundamentally, manufacturers should ensure that their procurement teams retain a design professional or design builder with experience in designing a dry-room environment.

Foreign owners have different approaches to construction management and budget than do U.S. contractors.

Non-U.S.-based manufacturers may be accustomed to prevailing legal risk and project management principles from other countries.

However, the contractor community in the U.S. manufacturing sector is typically accustomed to contract drafting and negotiations conducted pursuant to local norms. Differences in business cultures between contracting parties from different countries can add challenges in any transaction, but in a complex construction project in the electric vehicle sector, the challenges are enhanced.

This is because a large manufacturing project may take more than two years from entry into a construction contract to substantial completion. During that period the company representatives responsible for negotiating and signing the contract may fade into the background, while lower-level managers will be in charge of the project in the field.

Over the course of construction, these managers will speak for the companies and the project can, and will, become bogged down if communications are not clear, consistent and mutually understood.

For this reason, foreign-based manufacturers planning and building a production facility in the U.S. are well-advised to establish communication protocols governing their oversight of the contractor or design builder.

Often, the best solution is to retain third-party consultants with a background in manufacturing projects in the U.S. to assist and, in some cases, lead the owner's construction management efforts. Such consultants will understand the construction process.

More importantly, they will be steeped in the most effective manner to communicate with the U.S. contractor community and the complex dynamics between contractor, subcontractors and design professionals. If an owner lacks an appropriate and experienced representative during the project, it will be handicapped in avoiding change orders, additional costs, claims and litigation.

Market conditions challenge project owners.

With the explosion in manufacturing activity, particularly given the number of electric vehicle facilities sprouting in various states, contractors and design builders have more leverage than ever.

Consequently, owner-favorable contract provisions that were common 10 years ago, such as no-damage-for-delay clauses, are almost always initially rejected by contractors during contract negotiations.

Likewise, contractors and design builders on EV projects are less likely to accept realistic liquidated damage calculations, even claiming that the inclusion of any liquidated damages — the owner's only remedy in the event that the contractor or design builder delays the project — will require an increase in the contract price.

The best, and fairest, way to ensure that EV construction related liability risks are properly addressed is through an integrated approach to contract negotiation. Even though, when the contract is drafted, the contractor or designer may not be able to offer a final guaranteed maximum price, the contract should address as many risks as possible at the same time.

In other words, a construction contract should not be negotiated in segments, and the parties should be able to trade one concession for a concession from the other side. In the complex world of contract negotiation in the manufacturing sector, owners and contractors ought to remember that negotiations aren't to be won, they are to be timely concluded.

A best practice for manufacturers, and a helpful tip for foreign owners with little to no experience in U.S. construction contracting, is to provide all of their technical requirements and desired contract terms to potential contractors as soon as possible, preferably when soliciting interest from the contractor community.

By providing all contractual requirements, which include scheduling and risk-shifting requirements to potential contractors or design builders before they are selected, those contractors or design builders (1) can price anticipated risks into their initial proposals and (2) cannot feign surprise when asked to bear certain financial risks associated with defective or delayed design or construction.

On one hand, contractors and design builders are vendors and are certainly free to propose their own terms, many of which will seek to avoid significant liability for mistakes that may be made during construction.

On the other hand, it is not unreasonable for a manufacturer to expect that a contractor or design builder will stand behind its work and fairly bear losses or liabilities suffered by the manufacturer as the result of design errors and omissions or defective or delayed construction.

In the current market, a manufacturer must jealously guard its negotiating leverage relative to projects where values can stretch into the billions. For that reason, the manufacturer, not the contractor or design builder, should be the first to convey its legal and technical requirements so that bidders can understand and work to meet them.

Conclusion

Manufacturers in the electric vehicle industry are being aggressively courted across the country by state governments and municipalities alike. They will be lured with various tax

incentives, development grants and available, buildable land. All of those incentives are likely to be free.

The construction of a manufacturing facility, however, is highly technical, risky and may be the first time that the manufacturer first outlays truly significant capital in connection with the site selection and development process.

Delays in construction will cause some of the manufacturer's first material risk, and delays in production due to stoppages caused defects in the construction of the facility may pose one of the manufacturer's greatest risks.

For this reason, a manufacturer must treat the planning and negotiation of its design and construction contracts soberly and allocate the requisite time and attention to ensure that risks are distributed favorably — or at least fairly — between the contracting parties.

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