



WGI

**HELPING FLEET AND
PARKING OWNERS ACHIEVE
THEIR EV FUTURE**



Electric EV delivery vans are being charged in a company parking garage

America's EV future is right around the corner. President Biden has called for half of all auto sales to be electric by 2030, and the auto industry is responding with aggressive EV goals. General Motors plans to produce only EVs by 2035, and Ford and Stellantis (formerly Fiat Chrysler) plan to be 40% electric by 2030. Volvo is being even more ambitious, promising to go all-electric by 2030.

This dramatic and rapid transition to EV will have a particularly significant impact on fleet owners, owners of parking facilities, and campuses and complexes with parking assets. There is a **long list** of organizations that have made the commitment and started transitioning their fleets and facilities to EV. WGI is taking a central role in helping these organizations implement EV programs that will meet their EV needs well into the future. Our firm is providing program management expertise to a wide variety of organizations, from one of the world's largest e-tailers to smaller single-site projects—and everything in between. WGI is currently managing the creation and implementation of thousands of EV projects across the United States.

Although we are still in the early stages of the transition to EV charging, these programs provide a roadmap for successfully creating an EV charging program, with WGI providing vital

project management leadership. Whether your project is limited to a single site or possesses a scope on a national scale, the complexities remain the same.

Creating a network of EV charging infrastructure is no small feat. It requires the development of new EV-ready parking facilities and the retrofits of existing parking facilities to accommodate EV charging. This is a complicated process requiring power supplied by a local utility, wiring to convey that power, conduit to house the wires, and finally, charging stations. The sheer volume of necessary infrastructure can be a complicated matter to integrate with the other elements in a parking facility's design.

The challenges don't revolve solely around engineering considerations. There are also supply chain issues due to the increased popularity of EV charging parts and technology—passage of the Infrastructure Investment and Job Act further amplified the demand for charging stations and the infrastructure to operate them.

Deploying a successful program takes a combination of three things: a comprehensive understanding of EV charging



technology; expertise at deploying new technologies to the market; and a team that can deploy engineering solutions for any project, whether it's a national program or locally based one. WGI has managed the installation of thousands of EV charging stations. We understand the key to success is careful strategic planning, effective project management, and a collaborative team approach.

Conversion to EV charging can be costly, and it's vital to make the right choices and establish the most effective methodologies on the first try. This is particularly vital for large-scale projects. The financial implications of every decision are immense – some are easily multi-million-dollar decisions!

Those decisions are rewriting the rules for fleet management, paving the way for other fleet owners' transition to EV and service vehicle of the not-too-distant future. With the world's automakers committing to become entirely electric over the next decade or so, it's imperative that all fleet owners begin creating and implementing EV charging programs.

Charging stations at a Houston distribution facility



FIRST STEPS

WGI has a long history developing and implementing national programs with multiple sites -- most notably our partnership with one of the world's largest fleets. The expertise we developed through our work with this client, , simultaneously developing hundreds of EV-enabled parking facilities, allows us to create a blueprint that can be used by any fleet or parking facility owner. Working on one of the largest national projects ever attempted creates unique challenges and opportunities. The capabilities our experts bring, and the expertise they acquired, pay very valuable dividends to others, especially national fleet owners and parking owners with multiple sites.

What can you learn from our experiences? The first thing is that you need a dedicated and qualified team to design and implement your program. When assembling your team, choose representatives from your organization who understand your current and future EV needs, and are committed to the evolution to electric-powered transportation. You don't want your team members learning on the job, and you certainly don't want people who aren't aligned with your commitment to EV charging.

Second, you should find an infrastructure partner with expertise in *both* parking and EV charging. The bulk of your charging infrastructure will be developed in parking facilities. It's essential that new EV resources meet all your EV needs without undermining the ongoing operations or structural integrity of your parking facilities.



The Foundry | Loveland, CO



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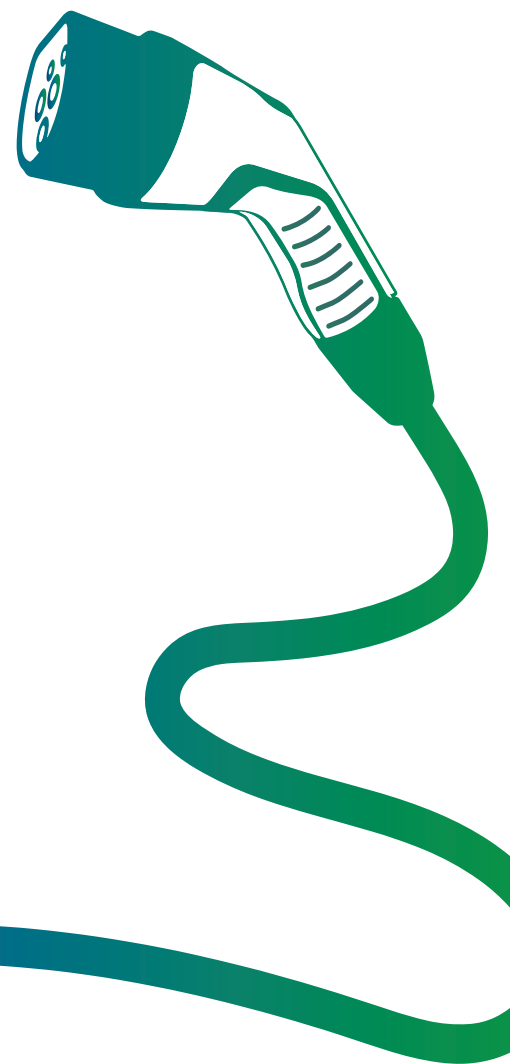
Norfolk International Airport | Norfolk, VA

LESSONS LEARNED: CREATING A PROGRAM MANAGEMENT TEAM

The EV program required a team with members who had extensive experience leading a variety of projects and programs across the country. The team needed to be able to oversee many projects at once. In the initial ramp-up, the focus was on project management for parking facilities and team creation, rather than on EV charging. Before EV infrastructure could be installed, program management systems needed to be developed.

One of the first difficult questions facing the project management team was whether to use local design, development, and construction professionals on each project or build regional teams. Each possibility presented trade-offs. Local professionals provided immediate access to the projects they would service, but they wouldn't know the company's standards as intimately as program managers would prefer. That was a significant consideration -- it was essential to standardize parking facilities that would ultimately provide charging, and the infrastructure needed to serve them.

Ultimately, WGI's project managers chose the two-team leadership approach, creating a west coast team and an east coast team. The benefits of two dedicated teams vastly outweighed the local-teams advantage. Everything in the program was designed to maximize value, and the bi-coastal approach offered the greatest possible value by providing effective project management while verifying that every team member would be aligned with the client's standards.



Project management is provided by WGI's experienced consultants, who are, to this day, consistently working with the client to evaluate established processes and suggest improvements. As a result of this ongoing collaboration, the company and WGI's consultants are unified to optimize the program and, together, quickly pivot to implement changes that are impactful and add value.

WGI's project management consultants need to know everything about this program, from the smallest initiatives to the largest and farthest reaching. To that end, there are regularly scheduled meetings between our team and the company's in-house EV team, and WGI's consultants are providing constant guidance into how to optimize the systems and operations, while also asking the client for feedback and actively listening. This program requires such a high level of contact because the team is constantly refining the program and helping it evolve.

These are extremely complex projects; they aren't your typical parking garage or lot design. Each of the client's parking facilities will eventually be fitted with the latest EV technology and infrastructure, and it is incumbent upon the entire team—both WGI project management consultants and company representatives—to pursue leading-edge strategies. The client isn't just the largest company to completely convert its fleet to EV; it's also one of the first. Together, we are literally inventing the strategies, approaches, and innovations that are required for success—and doing it as we go. The benefits of the program's successes will be far-reaching, and a model for companies of all sizes.



The WGI design team engaged in a collaborative discussion, exploring ideas on how to further perfect pre-engineered above-ground solution prototype. Chosen as the sole Architect of Record (AOR) for this unique endeavor, their collaboration offered invaluable insight into innovation success



EV truck charging station

QUALITY CONTROL

One of the most important project elements is quality assurance/quality control (QAQC). One of the most significant innovations is creating an environment of friendly competition between the teams. Each team does quality control for the other—while one team is managing a project, the other is providing QAQC. As a result, each team is working on each project at all times. Proving a very successful model, it is keeping each team involved with every project and assuring that the experience and expertise of all team members, regardless of their location, is put to work on every project.

This approach provides numerous benefits. When managers understand every nuance of the individual projects, how innovation benefits each, and how those innovations can be applied to other projects, the optimizations achieved can be applied elsewhere. On a program of this massive scale, saving a few thousand dollars on a job in one location, and applying the approaches everywhere else means easily saving millions of dollars over the entire program.

It's not just program managers tasked with generating ideas for improvements; all team members are encouraged to offer ideas for saving money. Generated during regular team meetings, innovations we introduce involve members of both teams. Everyone is engaged with every project; all team members understand every project, inside and out.



CREATING NEW APPROACHES THAT HELP AMERICA TRANSITION TO EV

This project is groundbreaking and extraordinarily important to both WGI's client and other fleet and parking owners who want to learn from these experiences. It is an incredibly significant program with a partner who made a very public commitment to something never been attempted before—converting a nationwide fleet of delivery vehicles to EV, and retrofitting hundreds of existing parking lots and facilities to fulfill that commitment. This program has required a combination of standard modular designs, and custom designs. The solutions we created will be invaluable to other fleet and parking owners—both large and small—who will convert their fleets and parking facilities to EV charging in the future.

So far, the WGI team designed over 200 conversion projects for this client, as well as over 10,000 EV charging stations for other clients across the United States. At any given time, there are dozens of projects underway for our clients. Beyond the sheer volume of new EV resources being introduced and integrated into the client's delivery resources, the program is introducing numerous program management innovations that could benefit other parts of its business.

Project management is playing a large role in the success of this and other national EV programs, and it can serve as a model for other fleet and parking owners with EV expansion needs. The program management innovations introduced can be scaled to any sized project. It's important to remember that there are no cookie-cutter solutions. Every organization—every site—presents its own unique challenges and opportunities. But this national EV program offers lessons and innovative approaches that can be implemented by your team of EV and parking professionals.

LET'S TALK.

For more information about implementing EV programs and the program management innovations being introduced, please contact Jacob Gonzalez at Jacob.Gonzalez@WGInc.com or Richard Reace at Richard.Reace@WGInc.com.



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