

FROST & SULLIVAN

AMPECO

2022 PRODUCT LEADER

*GLOBAL ELECTRIC VEHICLE
CHARGING SOFTWARE INDUSTRY*

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. AMPECO excels in many of the criteria in the electric vehicle charging software space.

AWARD CRITERIA	
<i>Product Portfolio Attributes</i>	<i>Business Impact</i>
Match to Needs	Financial Performance
Reliability and Quality	Customer Acquisition
Product/Service Value	Operational Efficiency
Positioning	Growth Potential
Design	Human Capital

Industry Challenges

The electric vehicle (EV) charging market is experiencing rapid growth, driven by regulatory shifts and growing consumer confidence in EVs. One of the primary consumer challenges has been the lack of access to EV charging infrastructure and the disconnect between current provisions and requirements. Currently, Europe has ~400,00 public chargers, which support over 3 million EVs. Forecasts show that this will need to increase to 9 million public chargers by 2035 to support 130 million EVs, which is an average of ~650,000 charger installations per year¹. In the US, the Biden administration is supporting EV infrastructure growth with \$7.5 Bn of investment by 2030, with a target of 500,000 public EV chargers.

To respond to this challenge, many new stakeholders look to support drivers with access to EV charging infrastructure. These include OEMs, charge point operators (CPOs), e-mobility providers, fleet operators, and energy providers.

One obstacle for stakeholders is that the software required to operate a network of chargers or provide users with an application to access and pay for charging is highly complex. While large-scale stakeholders may be able to develop their own platform, due to the pace of innovation and increasing complexity, many large and small players find it is unfeasible to build and maintain their in-house solutions.

AMPECO is positioned to meet this need by providing a white-label market ready solution that supports businesses in developing and launching their charging operations. Based on the industry's forecast

¹ Reuters: Europe needs ambitious charging plans for 130 mln EVs by 2035

growth, market opportunities and technical challenges, AMPECO’s solution is designed to suit the needs of high growth customers with flexibility to integrate existing systems and to build tailored solutions on top of its platform.

Match to Needs

AMPECO offers a white-label EV charging management solution, that includes a backend platform, web portal, and mobile app for drivers. Customers can build and manage a network from a wide range of OCPP-compliant charge points.

“Businesses can rely on extensive out-of-the-box features to cover public, private, and fleet charging in one software platform. For companies with complex business models or those wanting to build a custom user experience around a specific charging use case, AMPECO provides a comprehensive API solution.”

**– Robert Camm,
Senior Consultant**

A hardware-agnostic software solution like AMPECO allows businesses to work with multiple hardware manufacturers and easily grow their network in the future.

The platform includes all the features and tools needed to manage chargers at scale. Businesses can rely on extensive out-of-the-box features to cover public, private, and fleet charging in one software platform. For companies with complex business models or those wanting to build a custom user experience around a specific charging use case, AMPECO provides a

comprehensive API solution. It enables enterprise customers to develop their own features on top of the platform, ensuring the company's success.

AMPECO's product roadmap evolves alongside customer needs and technology developments. Where there is a recognized requirement for features across multiple customers, AMPECO will integrate it into its core offering for all customers. The static and dynamic load management options, which ensure optimum power distribution and help businesses build complex value propositions, exemplify customer-led development. Similarly, roaming and smart charging features are continuously developed to ensure customers have a scalable management solution in line with their requirements and the industry's needs.

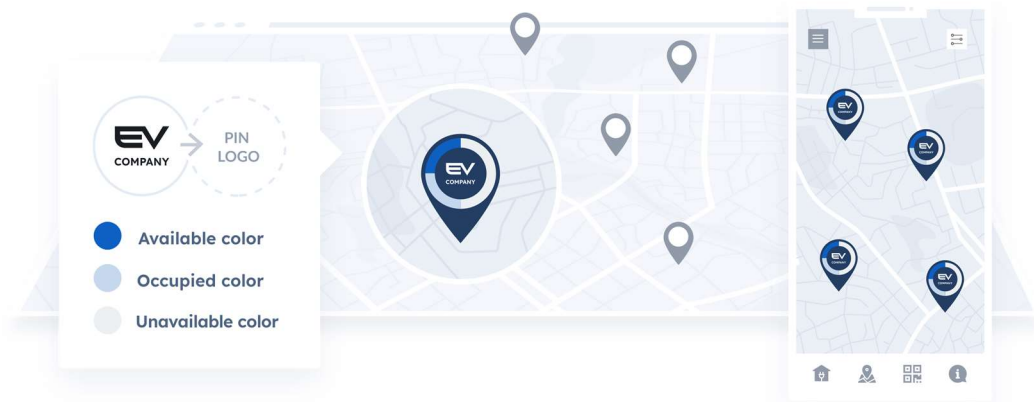


Figure 1: White Label Charging Stack (Source: AMPECO)

Product/Service Value

AMPECO offers a white-label, hardware-agnostic solution that enables customers to launch and scale their businesses easily. The platform covers all EV charging business use cases: public, private, and home charging, and allows customers to manage their network efficiently while providing an outstanding experience for EV drivers. AMPECO's solution benefits large-scale charge point operators with its API-driven platform approach. It allows them to build custom features or integrate EV charging data into their existing systems to secure their competitive advantage and long-term success.

AMPECO offers clients full ownership of their business, including complete control over customer relations, partnerships, and payment flows. This is highly valuable for large-scale EV charging providers, who recognize these as core assets of their business.

The platform offers innovative tariffs and billing plans that support multiple business models. Clients can choose any out-of-the-box payment processor or custom integration with their preferred payment gateway. Payments are made directly to clients' merchant accounts without additional fees or delays from AMPECO.

The cloud-based platform also addresses energy management challenges. It facilitates demand response and distributed energy automation with OpenADR. It connects homes and businesses with utilities to manage power fluctuations by adjusting power consumption in response to grid demand. AMPECO's API seamlessly integrates with smart meters, building management systems, and renewable energy sources to maximize efficiency.

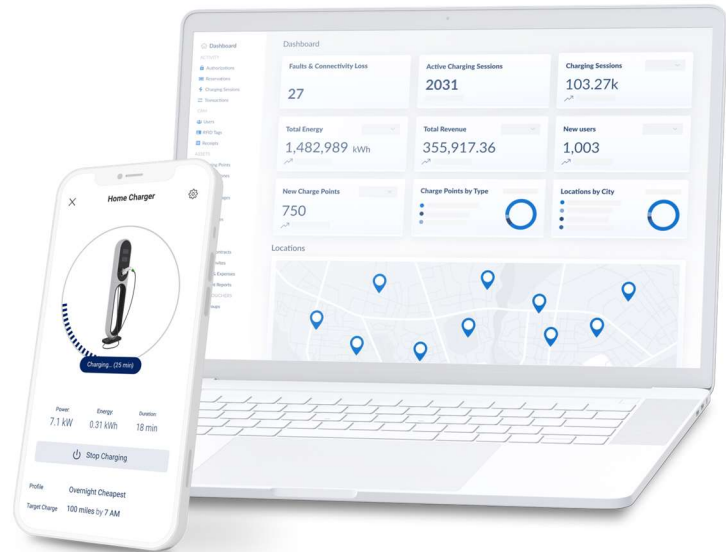


Figure 2: Charging Management Web Portal and Mobile App
(Source: AMPECO)

Positioning

AMPECO operates in a highly competitive market, which includes competing software providers or end-to-end charging providers with hardware and software solutions. AMPECO aims to differentiate its solution from competitors by providing an all-in-one EV charging management platform suitable for any business model. A key feature is its ability to customize the solution with API architecture, allowing customers to connect internal systems or third-party services such as dynamic pricing sources, customers' own CRM systems, or customized web portals. Clients can use the flexible EV charging API to create custom features, personalize user experiences, build their own mobile apps, and connect with other EV charging value chain stakeholders.

Unlike some competitors, AMPECO does not have a charging app under its own brand or presence as an e-mobility provider, as doing so would compete with its customers' offerings. Instead, AMPECO offers a white-label solution and is focused on deploying software expertise to deliver maximum customer value.

Customer Acquisition

AMPECO has customers in more than 45 markets, representing over 51,000 charging points. Its success in attracting a significant customer base is attributed to working closely with consultancies and system integrators who use the platform to service their customers' EV charging projects, allowing enterprise customers to develop custom solutions and not competing with their own clients, being a software-only company.

AMPECO is based in Europe and provides its services worldwide. The solution supports the charging requirements of customers across private, workplace, fleet, residential, and other charging scenarios, enabling AMPECO to capture a broader range of customer types.

The company's comprehensive onboarding process is designed to set up or migrate customers to the AMPECO platform quickly and efficiently. Customers gain in-depth training via a series of workshops to ensure smooth transition and operation of the charging software platform. The individual hands-on approach allows each customer to receive expert support on their specific use case, business model, or even local regulatory requirements.

A key focus for AMPECO is its involvement in industry organizations and associations, notably Eurelectric and SmartEn in Europe, SEPA, and Forth in North America, as well as standardization bodies like Open Charge Alliance, EV Roaming Foundation, and OpenADR Alliance. This allows them to stay informed and contribute to policy and technological developments in the EV charging industry, ensuring its charging platform is prepared for future developments.

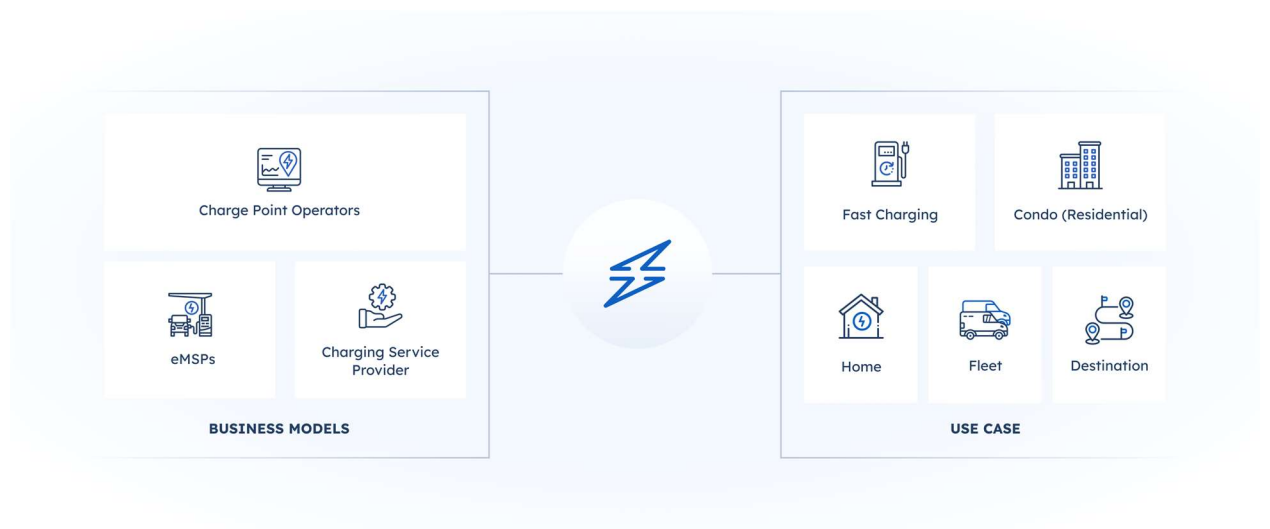


Figure 3: Business models and use cases covered by AMPECO

Growth Potential

AMPECO's market-driven, flexible product offering continues to support its high sales growth and customer expansion. The company serves customers across multiple markets from the headquarters in Sofia, Bulgaria, and is in the process of expanding its local presence in North America, Asia, and the Pacific. The company plans to open sales and support offices in the US and as it treats the market with the highest strategic importance.

As part of its future growth, AMPECO aims to improve its demand-response capability. This will positively impact the grid and support customers with infrastructure installation and cost competitiveness. Future developments also include vehicle-to-grid support, Plug & Charge under the ISO 15118 protocol, extended smart charging functionalities, enhanced security measures, and improvements to the EV driver experience.

Human Capital

Since its establishment in 2018, the AMPECO team has grown to 70 people in 2022. The company is driven by a common goal to support the launch and growth of customers' EV charging businesses. Software plays a crucial role in this endeavour, which explains the company's strong focus on its R&D capabilities.

The AMPECO team is structured to provide an excellent technical capability, customer success, and support functions, contributing to its overall success. Through its strategy and marketing functions, the company actively participates in industry associations to positively influence the industry's future and monitor changing trends and customer needs.

Conclusion

AMPECO contributes to the growth of the EV charging market by offering a white-label EV charging management platform that enables industry stakeholders to launch and grow their EV charging business. The solution is designed to meet customer requirements, reduce the time to market, and ensure time and cost savings. AMPECO's scalable API enables customers to integrate with existing systems and build custom features, apps, and additional functionalities to meet unique business needs.

The company is committed to supporting evolving customer requirements, with new features implemented to align with technological developments and industry trends. AMPECO also plans to expand its geographical presence to enhance its excellent customer services.

For its strong overall performance, AMPECO is recognized with Frost & Sullivan's 2022 Product Leadership Award in the Global electric vehicle charging software industry.

What You Need to Know about the Product Leadership Recognition

Frost & Sullivan's Product Leadership Award recognizes the company that offers a product or solution with attributes that deliver the best quality, reliability, and performance in the industry.

Best Practices Award Analysis

For the Product Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Product Portfolio Attributes

Match to Needs: Customer needs directly influence and inspire the product portfolio's design and positioning

Reliability and Quality: Products consistently meet or exceed customer expectations for performance and length of service

Product/Service Value: Products or services offer the best value for the price compared to similar market offerings

Positioning: Products serve a unique, unmet need that competitors cannot easily replicate

Design: Products feature innovative designs, enhancing both visual appeal and ease of use

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Engine™

Frost & Sullivan’s proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

[Learn more.](#)

Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

