

CASE STUDY

Online learning & Consulting

Electric vehicle education for the contemporary consumer

ev charging
institute

BY
EV RE-FLEET

energysage 



PROBLEM

EnergySage is the leading residential solar marketplace in the United States. We have established ourselves as a leading authority in the Solar industry by providing valuable education and content to consumers.

We found that our Marketplace and Supplier operations teams were receiving many questions about electric vehicles from consumers and installers. Our team was looking for an approach to efficiently become experts in electric vehicles and create valuable content for our audiences.

“

Adrian and the EVRF team delivered a customized EV training session that answered all our questions about EVs. Our staff loved their content and engaging speakers. I strongly recommend working with EVRF.

”

Spencer Fields,
Strategic Lead of Technology and Product Alliances

SOLUTION

EV re-Fleet made it easy for our staff to learn about electric vehicles.

The EVRF team quickly developed a customized curriculum for our team that incorporated answers to the specific questions that we were receiving. They also recruited industry speakers to deliver highly engaging webinars. At the end of the program, EVRF prepared handouts as resources that our team can use in the future.

Future Proofing Solar Installations for Electric Cars
Prepared for: Energy Sage
EVRF

How much electricity will electric vehicles consume?

	Sedan / Hatchback	SUV	Pickup Truck
Vehicle example	2022 Chevrolet Bolt LT	Volkswagen ID.4 Pro	2022 Ford F150 Lightning
Vehicle efficiency (kWh/mi)	0.28	0.34	0.54
Low Scenario			
Avg. Daily electricity demand (kWh / day)	7.67	9.32	14.89
# of additional panels	7.00	8.00	13.00
High Scenario			
Avg. Daily electricity demand (kWh / day)	15.34	18.63	29.78
# of additional panels	13.00	16.00	26.00

Note: Low scenario assumes the consumer drives 10,000 miles per year. High scenario assumes the consumer drives 20,000 miles per year. The average American drives 13,500 miles per year. For example, to calculate the daily electricity demand of a Volkswagen ID.4 the electric SUV, multiply daily distance driven times vehicle efficiency (9.32 kWh/day = 10,000 miles/yr ÷ 365 days/yr × 0.34 kWh/mi).

Putting things into perspective:
How does the additional electricity demand from electric vehicles compare to the electricity production capacity of an average home?

- The typical residential roof in the US can accommodate approximately 500 sq ft of solar panels (roughly 20 to 25 panels). This is enough to produce about 30 kWh/day.
- Since the average US household consumes approximately 30 kWh per day, it means that most consumers won't have sufficient rooftop space for solar panels to supply electricity to their home and car.
- Ultimately this math suggests that we should not encourage the average prospective EV buyer to delay their solar panel installation.

Will I run out of battery?

Battery Size and Driving Range Comparison

40 kWh	150 miles
64 kWh	250 miles
100 kWh	

What is an electric car?

An electric car can be driven on electricity instead of gasoline and recharged by plugging into an electrical outlet.

Battery Electric (BEV)	Plug-in Hybrid Electric (PHEV)	Hybrid (HEV)	Gas (ICE)

Electric Car | Gas Powered Car

• Electric cars already available

Level 1: Hour of Charge ~ 5 mi of Driving

Level 2: Hour of Charge ~ 18 mi of Driving

Level 3: Hour of Charge > 150 mi of Driving

RESULTS

- High satisfaction and engagement from employees
- Engaging content and resources for future use

"Everything was really great."

"I enjoyed the pace of the presentations, they were very easy to follow and were conducive to being able to retain all of the information easily."

"I really enjoyed seeing the data and more about where EVs are today and where they will be in the near future."

"Learning about the differences between brands, what is currently available in which countries, this is nice information."

"They were very engaging! I thought the Q&As were great, and spacing the two trainings over two weeks to allow people to come up with other questions/ask follow ups makes a lot of sense. I found the deeper dives to be very useful, and thought the run through of potential consumer questions were very helpful too."

WHO WE ARE?

We're a group of experts aiming to make electric vehicles practical. EV Charging Institute offers online webinars through EV Re-fleet (EVRF). Our goal is to help people easily understand EVs and choose emission-free transportation. Our staff has trained thousands, including top organizations like Pacific Gas & Electric, AAA, and more.

ADRIAN GOMEZ, MBA

Adrian Gomez has a decade of experience in the electric mobility market and has assessed over 15,000 fleet vehicles for electrification. Prior to launching EVRF, he was a co-founder at Green Light Labs, an EV ed-tech company, where he helped 4,000+ consumers learn about, and adopt electric vehicles.

Adrian also developed a unique insight into the EV industry after being a key contributor to Lucid Motors' \$1 billion USD fundraise and after helping one of Canada's largest electric utilities launch its EV business. Adrian loves to educate people and has logged 670+ hours of public speaking experience after teaching more than 560 post-secondary education students



IGOR LUKAC, P.ENG.

Igor Lukac, a licensed professional engineer, discovered his passion for electric vehicles while building a solar-powered electric car with a team of engineers. Since then, his engineering firms have helped clients throughout North America to deploy renewable energy projects.

Igor is an expert in electric vehicle technology and holds two degrees, one in Integrated Engineering and one in Business Administration with a specialization in finance. He has also developed a systematic approach to determine EV feasibility using robust mathematics and software algorithms. During EV training sessions, Igor effectively 'translates' complicated technical details to make it fun and easy for people to understand EVs.



We make it simple to get into EVs.

1-628-313-3990
matt@evrefleet.com



EV Bootcamp for rental property owners

AAOA EV Charging Bootcamp

Electric Vehicle Charging? How do transform an expense into a new source of rental revenue

The purpose of this EV Bootcamp is to provide practical advice and support for landlords, property owners, and property managers who want to install electric vehicle charging in their properties.

At the end of this Bootcamp, you will have the necessary knowledge and support to make smart decisions about how to install - and profit - from EV Charging Infrastructure.

This EV Bootcamp takes place over 3 sessions:

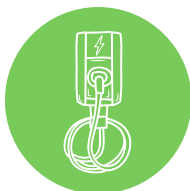


Part 1: Understand

THU. AUG 31, 2023, 11AM - 12PM PST

Why do people struggle with EV charging and how do you maximize your revenue?


 Optional 1:1 consultation – create your EV charging business case

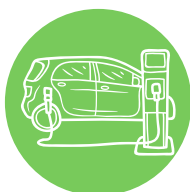


Part 2: Choose

THU. SEPT 14, 2023, 11AM - 12PM PST

What type of EV charging equipment makes the most sense for your property portfolio?

 Optional 1:1 consultation – choose your EV charging equipment



Part 3: Start

THU. SEPT 14, 2023, 11AM - 12PM PST

How do you deploy EV charging and avoid making costly mistakes?

 Optional 1:1 consultation – start your EV infrastructure design

Part 1 • Understand EV Charging

THU. AUG 31, 2023, 11AM - 12PM PST

DESCRIPTION

The first session in our EV bootcamp installment series will teach you the fundamentals of electric vehicles, charging infrastructure, and how to make informed decisions when incorporating EV charging solutions for multi-family and

commercial properties. Join to gain essential knowledge about how to convert this expensive investment into a new source of rental revenue.

AGENDA

- **EV 101: Brief overview of the EV market**

Who are the players, what types of cars are available, key parking lot considerations when designing your EV infrastructure project.

- **EV charging infrastructure overview**

Use cases for EV charging [shared, dedicated, corridor/fast charging]; the difference between AC and DC charging; an overview of the different type of chargers available in the market.

- **How Electricity Works**

Electricity billing 101 (energy vs. demand); Basics of solar energy; What is net metering?; The benefits of pairing solar and EV charging; Available Incentives.

- **Your Business Case for EV Charging**

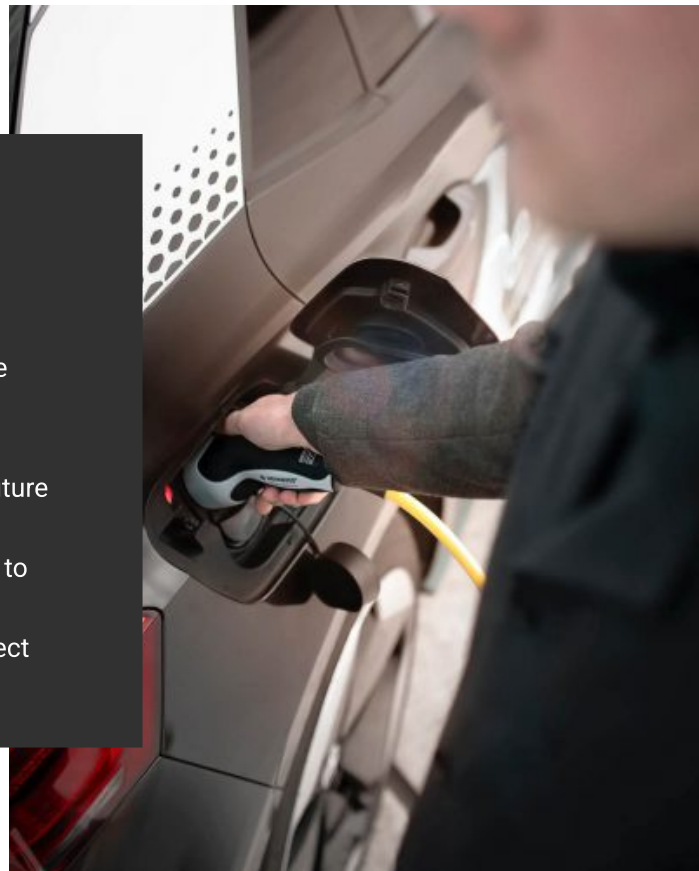
The 4 steps involved to deploy EV charging infrastructure; high-level cost estimates for your business case; overview on different revenue models; how to calculate the business case for your EV charging infrastructure project?.

DAY 1

LEARNING OBJECTIVES:

The objective of this course is that at the conclusion, you will be able to:

- Explain the basics about electric vehicles
- Summarize charging infrastructure use cases, needs, and future smart charging applications
- Describe industry best practices on how to add EV charging to your property
- A plan for how to calculate the ROI of your EV charging project



1-1 OPTIONAL PARTICIPATION

DEVELOP YOUR EV BUSINESS CASE

As an EV Bootcamp participant, you will have the option to book a 1:1 session with your instructors to discuss your EV charging project and have your questions answered. Participants will receive hands-on support to create an action plan.

Part 2 · Choose what to install

THU. SEPT 14, 2023, 11AM - 12PM PST

DESCRIPTION

The second installment in our EV bootcamp series will focus on EV charging equipment. Our objective during this session will be to present you with a detailed overview on the types of hardware and software solutions that rental property owners typically install for their tenants. For example, did you know that you can save hundreds of dollars by using load management software to connect multiple chargers on the same electric panel circuit breaker?

We will review options for each power level (Level 1, Level 2, and DC fast charging) and present you with different approaches to collect revenue from EV drivers. Join this session to gain a deeper understanding of the costs and develop your preferred monetization strategy.

AGENDA

- **System Overview**

We'll begin by covering the system to power your vehicles. We'll address questions like: Why a transformer? What's an electric panel? How to supply EVs?

- **Monetization options**

We explore different financial models you can use as a property owner to earn new rental revenue from electric vehicle charging

- **Level 1 & Level 2 EV charging options**

Charging options for your rental properties and discuss their benefits and limitations

- **DC Fast charging options**

- **Questions and Answers**

Your participation is vital. Feel free to ask any EV charging questions. We're here to help!

DAY 2

LEARNING OBJECTIVES:

The objective of this course is that at the conclusion, you will be able to:

- Explain the different types of electric vehicle charging equipment available to you
- Summarize the options you have to earn revenue from EV charging
- Answer your questions about EV charging infrastructure and equipment
- Start collecting financial data to calculate the ROI of your EV charging project



1-1 OPTIONAL PARTICIPATION

CHOOSE YOUR CHARGING HARDWARE

As an EV Bootcamp participant, you will have the option to book a 1:1 session with your instructors to request more detailed information about the different types of EV charging solutions that you can install - including the cost of equipment. Participants will receive hands-on support to build their business model.

Part 3 · Start your EV charging project

THURSDAY, SEPTEMBER 21, 2023, 11AM - 12PM PST

DESCRIPTION

To conclude your EV bootcamp, we will present you with a practical guide to start your EV charging installation. The final installment in this EV Bootcamp will explain the four steps to install and monetize your EV chargers. Research shows that installing multiple chargers at once can reduce your capital expenditures by more than 30%.

We will explore the value of an electrical engineering assessment, when and how to involve your electric utility, the construction process, and how to get permits for your project. Joining this session will help you develop a clear action plan to begin your EV installation and start making money.

AGENDA

- **Problem overview**

We will start by discussing the big picture: what are the steps involved in deploying an EV charging infrastructure project?

- **Step 1 - Site Assessment**

we will discuss the importance of starting with your local area research to develop a revenue strategy, as well as when you should do a site evaluation including electrical drawings.

- **Step 2 - Design Concept**

We will discuss why you should perform a preliminary engineering review with ADA compliance, EV charger markings, signage and shared parking design; this section will also teach you about the permitting process.

- **Step 3 - Construction**

We will describe the construction process and present you with pictures of various EV charging station installations to help you understand what you need to do.

- **Step 4 - Follow through**

The final step is all about revenue generation - we will discuss different options you will have to generate awareness about your new chargers and start collecting new tenant revenues

- **Case study review and Q&A**

We believe it's critical to encourage active participation from our attendees - if you have any questions about EV charging please don't hesitate to ask; we are here for you!

DAY 3

LEARNING OBJECTIVES:

The objective of this course is that at the conclusion, you will be able to:

- Explain the process to design and install electric vehicle charging stations
- Summarize the 4 steps to build your EV charging project
- Answer your questions about EV charging infrastructure and equipment
- Start your EV charging project



1-1 OPTIONAL PARTICIPATION

BEGIN YOUR COMMUNITY ASSESSMENT

You will have the option to book a 1:1 session with your instructors to develop an action plan for your EV charging installation, including cost and timing estimates that you can use to finalize your business plan.

BONUS

ev charging
institute

We want to help you in your project, we have 2 amazing bonuses from our sponsors



ENGINEERING ASSESSMENT:

Innervations will give you a \$300 for their services if you choose to work with them.

EPIC CHARGING

Epic Charging will give you a \$150 discount on EV charging software when you buy 3 years license.

We make it simple to get into EVs.

1-628-313-3990

matt@evrefleet.com