

# Next Generation Solar Powered EV Charging Products



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## NOT FOR DISTRIBUTION



# Envision Solar – Product Lines

## Fixed

Solar Tree®



## Transportable

EV ARC™





# State of California

DGS Statewide Mandatory Contract  
State & Local Public Agencies

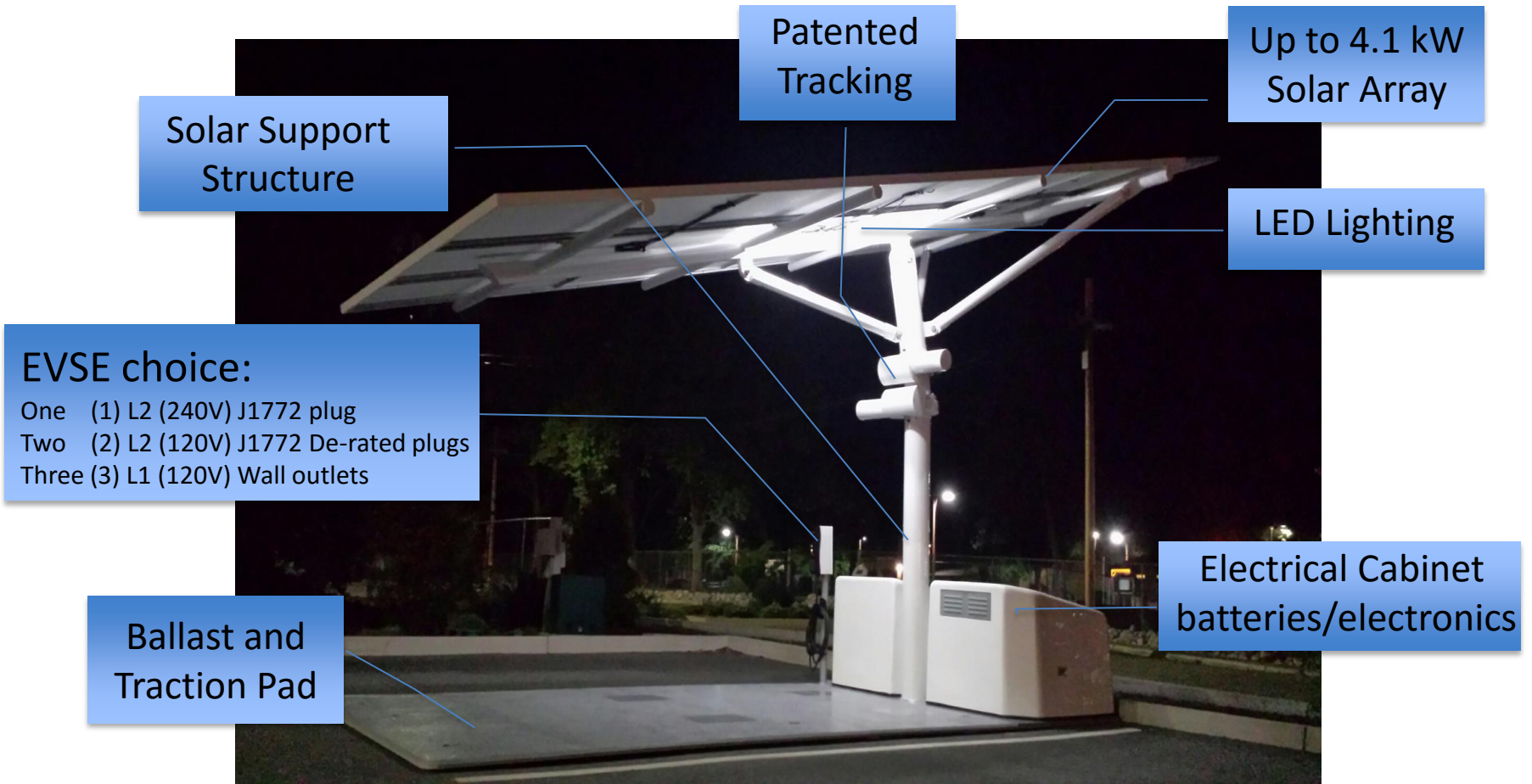
**1-15-61-16**

<https://www.bidsync.com/DPX?ac=agencycontview&contid=115616>

1. QUICK PURCHASE **NO RFP Requirement**
2. Special Discounted pricing:
  - i. 2% State of CA discount on EV ARC™
  - ii. 10% State of CA discount on all Optional Features
3. 90 day delivery schedule (< 50 units)
4. Bundled all inclusive 12-month pricing:
  - i. Includes (S&H) Shipping & Handling
  - ii. Includes (RMMS) Remote Monitoring Management System and Optional Smart Charger Network Subscriptions
  - iii. O&M



# What is a patented EV ARC™ ?



# EV ARC™ - Fast & Easy

- ✓ NO civil engineering
- ✓ NO permitting
- ✓ NO construction
- ✓ NO foundation
- ✓ NO trenching
- ✓ NO electrical circuit
- ✓ NO transformer/switchgear upgrades
- ✓ NO meter
- ✓ NO interconnect agreements
- ✓ NO utility bills
- ✓ NO carbon footprint
  
- ✓ SAVE money
- ✓ MAKE money



**Delivered to your site ready to  
charge in just minutes!**

# EV ARC™ - Drop and Charge



# EV ARC™ – Ship and Charge

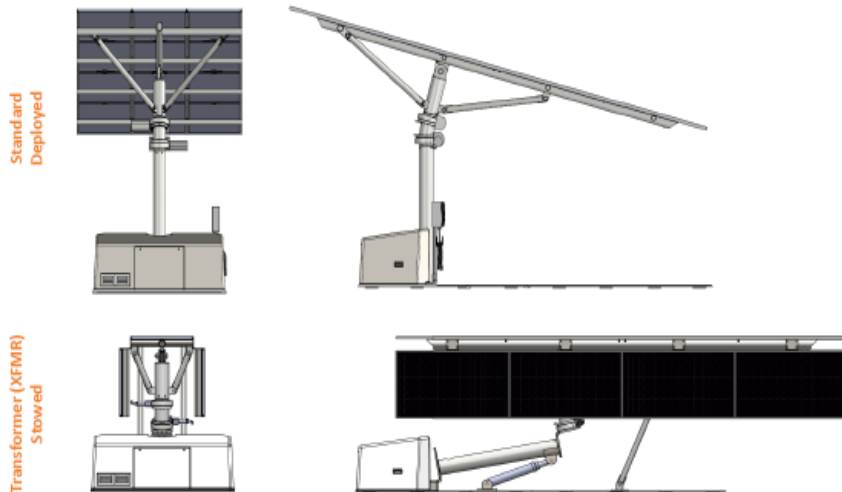
The EV ARC™ transformer modification (optional feature) and hydraulic and Transformer Kit (sold separately) allows a customer to lower an EV ARC™ into a stowed position (7'6" height) for transportation (or during extreme wind events (over 110mph)).

The Transformer Kit requires a hydraulic power pack capable of producing 3000PSI to operate the hydraulic ram (sold separately). Envision Solar can provide the power pack or deliver specifications for a customer provided unit.



Fits into a 40' container

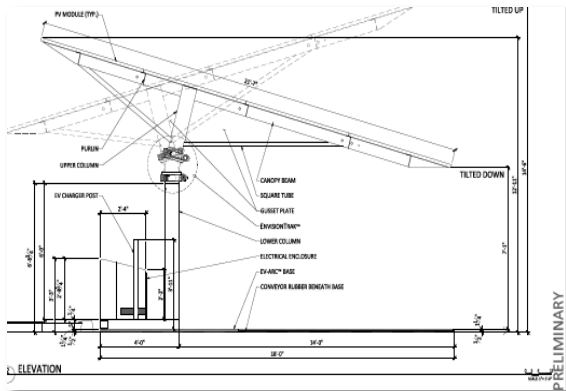
EV ARC™ in a stowed position will continue producing energy from sunshine for EV charging or anything else.





# EV ARC™ - Fits into standard parking

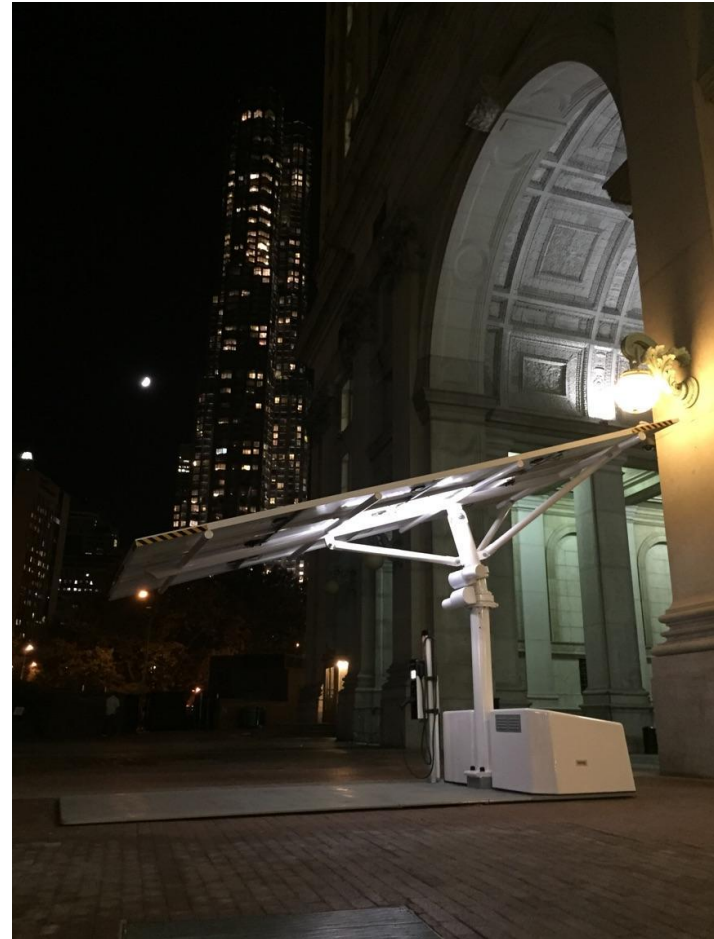
EV ARC™ is **ADA compliant** and can service compact and large sized vehicles.



# Solar Powered Charging by Day ...



# ...battery or grid buffered charging at night



# ARC™ Storage Technology

Because all our products can store sunlight to work day and night, they are also the perfect tertiary source of emergency backup power whenever you need it.

No generator to fuel, no services, no oil changes, no pollution. Just the most reliable source of energy available today. It will be there when you need it.

We use compact and light weight lithium ion batteries which combine the highest quality cells with a passive thermal management system that delivers industry-leading energy density.



# Energy Security & Disaster Preparedness Asset

## EV ARC™ = Energy Security

- **Hurricanes**
  - Sandy, October 22, 2012
  - Katrina, August 23, 2005
- **Earthquakes and other Natural Disasters**
  - Fukushima Daiichi, Japan, March 11, 2011
  - Northridge, January 17, 1994
- **Terrorism and Vandalism**
  - Metcalf Substation, Palo Alto April 16, 2013

**What's next?**



# EnvisionTrak™ - Exclusive & Patented Tracker

Increases solar electric generation by **up to 25%** over conventional fixed arrays...

... **AND IT HELPS AVOID COLLISIONS.** Is specifically designed for parking environments. Tracking array avoids drive aisle obstructions by maintaining lineal alignment over parking area.

EV ARCs™ with EnvisionTrak™ capture the sun no matter which direction you point them.

EnvisionTrak™ has a very low maintenance requirement.

Equipped with our remote monitoring and management systems (RMMS), you'll always know how your station is doing.

**EnvisionTrak™ has been described as the “most reliable, most robust and most cost effective tracking technology in the industry.”**

San Diego Gas and Electric



Northern facing parking spot.  
Google - Mountain View, CA



# EnvisionTrak™ - Time-Lapse Video

Click on photo

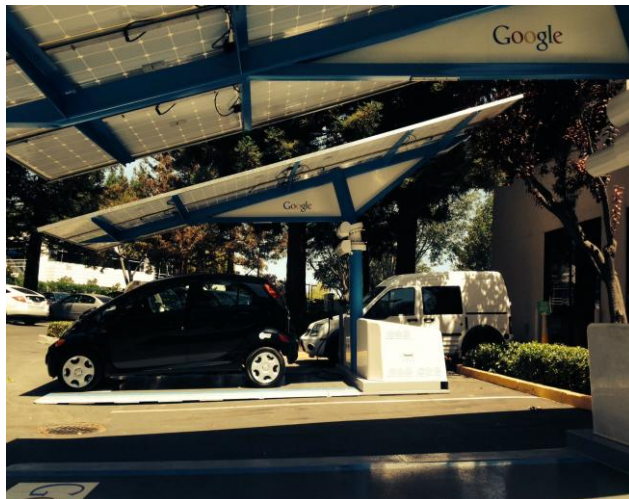


<http://vimeo.com/46196130>



# EV ARC™ - Workplace Charging

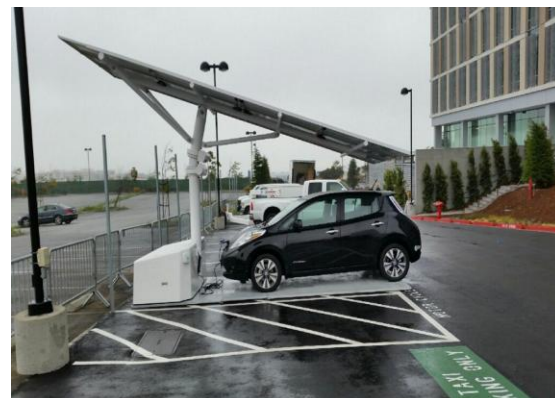
*Johnson & Johnson*



**Genentech**  
A Member of the Roche Group



**Google**



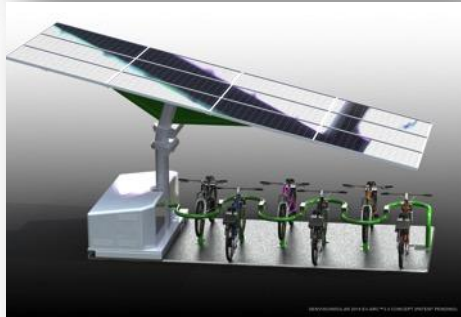


# EV ARC™ - Delivering value however it is set up



## Ride Sharing Station

EVs, NEVs, eScooters, eBikes, golf carts



## E bicycle charging/locking station

The perfect way to get around your campus or city



## Disaster Preparedness Asset

Renewable Solar Power Generating Station

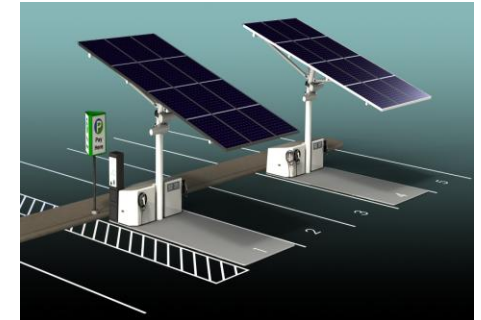
## Parklet Amenity

Seating, USB and 120V outlets



## Parking Meter/Pay Stations

Multi and Single-Space



## DOOH Media Street Furniture

Outdoor Branding, advertising and educational Platform



We ship EV ARC™ configured for your requirement and we'll bundle Scooters or e Bikes to as part of the package. Call us to learn more.

# EV ARC™ - Revenue Generator

EV ARC™ and Solar Tree® stations are excellent mounting assets for any device that enhances your campus, commercial or residential parking lot or parking garage.

- CCTV cameras,
- Digital outdoor screen for messaging , advertising or directories
- Single or Multi-space parking meters
- USB ports
- 120V outlets
- Wireless access point
- Loud speakers
- Bench seating



# Real Time / Historic Data Reporting

## Standard Features

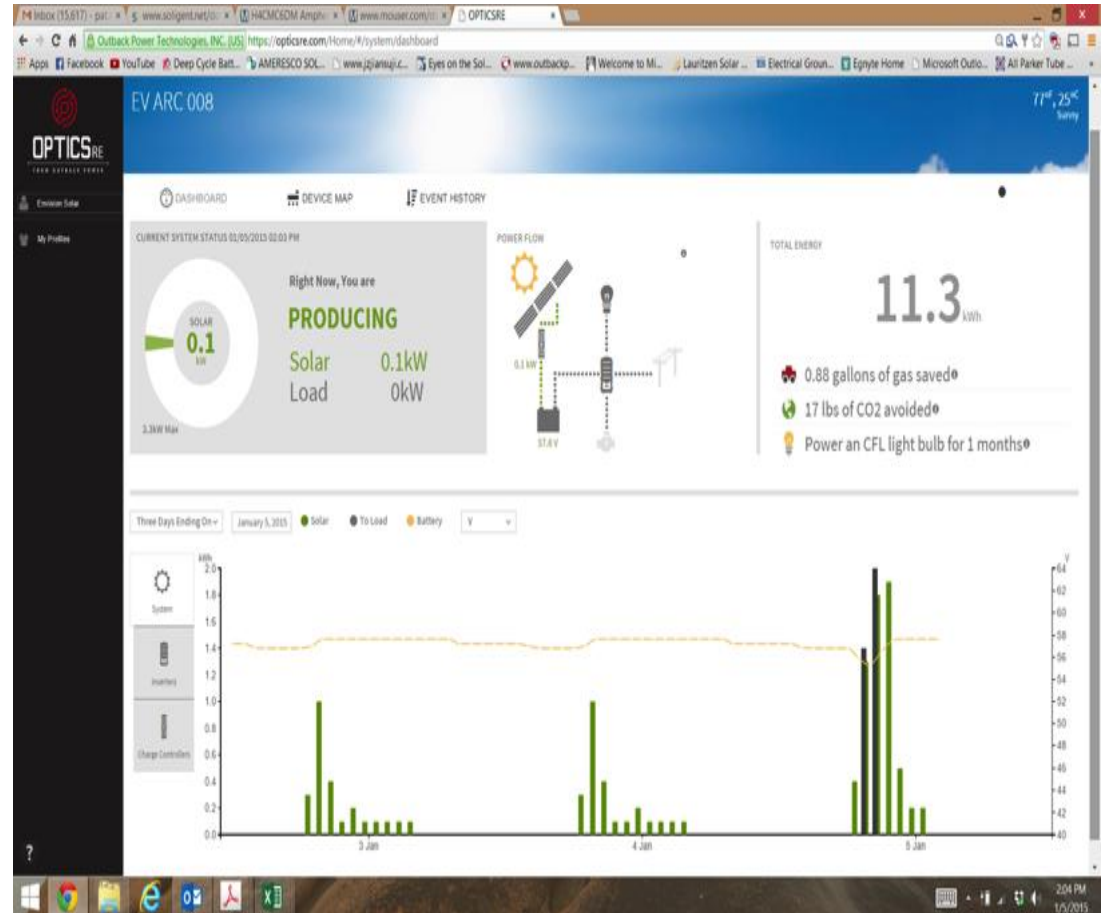
The EV ARCs™ come standard with a wireless\* system which provides real time and historic reporting on:

- State of batteries (Voltage)
- State of PV array (Production Rate)
- State of EV charging (EV charge rate)
- Energy flow from sources to loads
- Hourly total energy transfer (from PV and to EVs)

## Optional Features

EV ARCs can also provide the following data as an added option:

- Complete battery monitoring
- State of charge percentage
- Refined energy flow



(\*) Data connection not included, averages \$20 a month



# Demonstrate Your Commitment to Sustainability in a Highly Visible Way

Transportation accounts for 40% of US Greenhouse Gas Emissions. The generation of electricity accounts for another 30%. EV ARC™ displaces gasoline and grid powered electricity so every time you use an EV ARC™ you are doing your bit to reduce 70% of our GHGs.



The table below shows what an EV ARC™ can do to make the environment better.

## EV ARC™ - Potential CO2 Reductions\*

Model	kWhs Produced Daily	Miles/Day	Miles/Year	Gasoline displaced (gallons)	CO2 Emissions Displaced over gasoline (metric tons)	CO2 Emissions Displaced over grid (metric tons)
EV ARC™ 3	30	100	43800	1856	16.5	7.45
EV ARC™ 4	37.5	120	54750	2320	20.6	9.31

\* Based on ideal conditions for EV ARC . All dimensions, cost capacity and production numbers are approximate.

# Not your average Christmas toy, we deliver your EV ARC™ with batteries included ... and fully charged!

All EV ARCs™ come standard with :

- **24 kWhrs ARC™ Technology** - Battery storage so that you can charge when the sun is not shining. It'll come in really handy when the utility power is out too. If you need more energy storage we'll add another 6kWhrs for you.
- **3 charger options** – One level 2 (240V) J1772 plug or a dual level 2 de-rated (120V) plugs or three 120 VAC outdoor outlets.
- **Truss integrated efficient LED lighting** - This beautiful lighting feature will bathe your EV ARC™ in highly visible and attractive lighting. Great for safety and for adding a beautiful nighttime feature to your lot.
- **EnvisionTrak™** - Our exclusive and patented sun tracking technology. We want to get all the power we can out of your parking space. EnvisionTrak™ can generate up to 25% more output than a traditional fixed array.
- **Remote Monitoring & Management System (RMMS)** - Allows us to be sure that your unit is performing optimally and, if you like, it let's you see how the unit is being used and how much value it's delivering. There is a small monthly data charge but we think you'll like staying in touch with your EV ARC™.



# EV ARC™ - Optional Features

<u>Optional Features</u>	<u>Description</u>
Column Mounted Color Status Lights	Highly visible LEDs which show EV ARC™ readiness, in use etc.
Grid Connect [Requires 240V grid input]	Connects EV ARC to the grid to enabled interactive features based on customer requirements. Features include selling excess solar power, topping off internal storage, and backing up EV charging
Timer Controlled Charging	Allows customer to place time limits on charging
Additional Battery Pack	Increases energy storage from 24 kWh to 30 kWh
PV Upgrade	Increase solar capacity from 3420w to 4140w (30% increase)
AC and USB Outlets**	Connect 120 or 240v AC and USB devices
47" Outdoor Digital Screen	Allows user to deliver digital content wirelessly to an outdoor screen
60" Outdoor Digital Screen	Allows user to deliver digital content wirelessly to an outdoor screen
Bumper stops (set of 3)	Three bollards bolted to ballast plate for damage prevention
Bench Seating (10+ units)	Creates a comfortable, shaded bench for EV ARC™ users or passersby
Custom Colors and Branding	Choose your own color scheme and add logos
Additional J1772 Basic Charger Plug	Dual J1772 plug allows for two EVs to charge simultaneously at a de-rated (120V) level 2 charge rate. Does not capture or transmit data
Networked EV Charger	Smart networked charger with billing etc.
Transformer EV ARC™***	Allows the EV ARC™ to be hydraulically lowered for transport or hurricane. <b>Required model upgrade for cross state shipping</b>
ARC Mobility™ Trailer [Long Haul / Short Haul]	Specialized hydraulic transport system for easy re-deployment

\* Doesn't include annual subscription plan

\*\* Current limited while EV is charging

\*\*\*Additional optional mounting kit required



# Envision Solar – Trusted by



# EV ARC™ - Recap



- **NO INSTALLATION !!!**
- EnvisionTrak™-- Exclusive patented sun tracking technology
- 100% off-grid, clean energy and ballasted system
- Deploys in minutes: drag and drop
- Supports any quality EVSE charger (networked or non-networked)
- Highly scalable
- Customizable
- Highly Visible, Iconic & Brandable
- Generates Advertising revenue via outdoor digital display
- Real time data - web based reporting





# FAQs

## I want to know

## You should know

What site preparation is required	None – your EV ARC™ is delivered intact and installed in a standard parking space in minutes
Do I have to bolt the EV ARC™ to the ground?	No – EV ARC™ has an ingenious ballast and traction pad and traction system which means that after we put it in your parking space it will stay put – all on it's own
Will the wind knock it over?	No – EV ARC™ has been independently rated to survive 110mph winds. Hold on to your hat.
What if someone is parked on EV ARC™ but not charging?	Properly placed, EV ARC™ can reach up to six parking spaces. You don't have to park on it get a charge from it.
What if the power goes out?	You get to drive. EV ARC™ doesn't need utility power so you'll always get home
Do I have to ask the utility's permission	No – EV ARC™ does not connect to the Grid.
Do I have to get a building permit	Most cities and towns will not require a permit because there is no construction or electrical work. If you're worried ask your local jurisdiction and be sure to tell them that EV ARC™ is portable and "temporary".
Do I need an engineer?	No , we've done that for you. EV ARC™ is a pre-engineered product with electrical and structural stamps.
What about snow?	Sweep it off the array and keep charging. Here's a little secret – the solar modules like being cold
What happens when it's cloudy	It turns out that high quality solar modules make electricity even when it's cloudy. We use only the highest quality modules available. They're not cheap but they're worth it. You'll get energy even on cloudy days and if you need a little more the batteries will tide you over.
Can the EV ARC™ charge more than one car?	EV ARC™ comes equipped with up to 3 Level I outlets or up to 2 Level II outlets. Multiple Level II outlets will be throttled down to match the systems power output. Adding a timed charge limit can enable you to cycle multiple cars across the EV ARC™ each day with each picking up more than they need to carry on.
What if I want to move my EV ARC™ later?	No problem. Your EV ARC™ is designed to be moved, across the lot, across town or across the country. If you plan on moving a lot of EV ARC™ units we'll sell you an ARC Mobility™ trailer to make the job easier. Just ask us
Can I use my existing charging partner?	Sure – we are charger agnostic and will work with any quality vendor. We've probably already deployed their units on another of our products

# PRODUCT SPECIFICATIONS

		EV ARC 3	EV ARC 4
Solar Array Power <sup>1</sup>	kW	3.4	4.1
Max Daily EV Range (Solar) <sup>2</sup>	e-miles	100	120
Canopy Dimensions (L x W)	ft	22 x 9.9	20.5 x 10.5
Max Canopy Height	ft	13.3	13
Min Clearance	ft	7.6	7.7
Total Battery Storage	kWh	24 or 30	
Reserve Battery EV Range <sup>3</sup>	e-miles	64 or 80	
Operating Temperature <sup>4</sup>	°C (°F)	-20 to 50 (-4 to 122)	
Max Wind Load	mph	110	
Base Pad Footprint (L x W)	ft	18 x 7.5	
Weight <sup>5</sup>	lbs	7633	
Surface Pressure <sup>6</sup>	psi	5	
Max Total EV Charger Power <sup>7</sup>	kW	4.2	
Max EV Charger Circuits <sup>8</sup>	na	1 (L2 J1772); 2 (L1 J1772); 3 (L1 Outlets)	
EV Charger Types	na	Basic and Networked Options Available	
Standard Shipping Method	na	Custom ARC Mobility™ Trailer	
Optional XFMR Shipping Size (L x W x H) <sup>9</sup>	ft	24 x 7.5 x 7.5	
Major Component Ratings <sup>10</sup>	na	UL 94 V-0 (Battery); UL 1741, CSA C22.2 No.107.1 (Inverter and Charge Controller); UL 1778 Annex FF (Inverter); UL 1703, IEC 61215, IEC 61730 (Solar Panels); UL 2594, UL 2231 (EVCS)	

## REFERENCES:

1. Actual nameplate output may vary by +/- 5% based on panel availability
2. Range will vary based on local conditions
3. Range assuming 25°C
4. Cold weather package allows for operation to -40°C
5. Exact weight varies based on EV ARC model

6. Pressure calculated with weight evenly distributed over 8, 8in x 24in anti-skid pads

7. Actual total output power depends on EV and EVCS (3.3 to 3.8kW common in L2 charging)

8. Output power may be reduced based on number of circuits, EV models, and EVCS types

9. Enables domestic and int'l shipping on a standard flatbed trailer or shipping container

10. Subset of ratings are listed; additional component listings furnished upon request



# Take advantage of the tax credits and other generous incentives available today before they run out!



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