



# Israeli Innovation in Electromobility



<http://www.algolion.com/>

### Electro Mobility

Safety issues with lithium ion batteries remain a large concern and a major technical barrier to their widespread adoption in various industries like electric vehicles and aviation. Developing protocols that, on an ongoing basis, measure different, more sensitive markers for cell hazards than those tracked by existing diagnostic methods, enabling earlier detection of battery issues. Appropriate procedures can then be implemented to manage the danger before it flares into a fire.



[www.aquariusengines.com](http://www.aquariusengines.com)

### Powertrain/EV

Has designed developed and produced a breakthrough electricity power generator. Aquarius engine-generator dramatically cheaper cleaner and more efficient than existing engines is about to disrupt the market of power generators in general and electric cars in particular making hybrid and electric cars affordable to the masses.

The company is now engaged with a few multi billion OEMs both in the field of generators and electric automobiles.



<http://www.chakratec.com/>

### Charging Infrastructure

Storage for EV Charging Stations – up to 70% OPEX reduction; These charging stations have a hidden cost which is the need to provide a lot of power to charge the EV in a relative short timeframe. Whenever an EV car is connected to a charging station, the facility's electrical infrastructure experiences a high current surge and an electrical demand spike. Electrical demand spikes add up and eventually result in huge infrastructure upgrade cost and huge demand c in the monthly bill.

To reduce these high demand spikes, an energy storage system which can withstand multiple, and high power surges per day is required.



<http://www.citytransformer.com/>

### EV

The City Transformer concept is a safe personal transportation solution which is well suited to city traffic. The car has folding capability: When the car is in driving mode, its track width is equal to the track width of a conventional car, with high safety factor. When it is in parking mode, its track width is considerably smaller and the car takes up a space similar to that of a motorcycle, and saves valuable parking space. The car propulsion system is based on an electric engine and battery. Since the car is very light and its natural neighborhood is the city, range issues are not anticipated. Thus the proposed car (a quadricycle) will close the gap between two-wheel vehicles and traditional cars.





[www.driivz.com](http://www.driivz.com)

EV

A dynamic, end-to-end EV charging management platform. It is made up from a set of unique and powerful software tools that effectively responds to the needs of the plug-in EV (PEV & PHEV) market ecosystem. The Driivz solution provides service providers (EVSP) and charging station owners the ability to manage and control their assets, while maximizing driver satisfaction.



<http://www.electroad.me>

EV

The company was founded in 2013 to revolutionize E-mobility with the ultimate goal of eliminating the dependency on oil. ElectRoad is developing a unique technology that powers the vehicle wirelessly from the road while driving. By that, ElectRoad removed the energy source from the vehicle, reduced the cost and weight dramatically and eliminated the range anxiety. Addressable market: Public transportation within cities (focus on buses).



<http://www.etvenergy.com/>

EV

Developing next-gen lithium-ion battery for the automotive and high-end markets. Novel battery chemistry based on a high-voltage cathode is being developed for the automotive market to deliver a specific energy level of 220-250Wh/kg. The company has already gained a foothold in the high-end market with a derivative of this technology that delivers 400Wh/kg.



<https://www.evchip.com/>

EV/Charging

EVchip delivers a system solution based on a chip and algorithm that monitors and controls a battery pack while in charging, discharging and resting conditions. The technology makes use of proprietary integrated circuits (IC's) combined with algorithmic management software that intelligently applies EVchip's concepts of SmartLoad™ and DynamicPower™.



[www.gnrgy.com](http://www.gnrgy.com)

EV Infrastructure

The first solution is a simple charging management socket which uses existing infrastructure and enables fast implementation of a charging solution- the residential segment where the need is for low cost charging solutions, working in conjunction to the utilities' preferred charging scheduling.

The second charging solution is a traditional infrastructure charging spot which requires an infrastructure modification and is operated under our same management network- municipals, enterprises' parking lots and government offices.





PHINERGY

[www.phinergy.com](http://www.phinergy.com)

Phinergy is a leading developer of breakthrough zero-emission, high energy-density systems based on metal-air energy technologies. The company's primary focus is on aluminum-air and zinc-air batteries.

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### Storage/alternative energy/ EV



POCELLTECH

<http://pocelltech.com/>

Leading-edge research and development of fuel cell and supercapacitor technology aimed at clean, efficient energy storage solutions for the automotive industry.

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### Fuel cell Technology



REDLER  
Technologies

<http://www.redler.co.il/>

Redler Technologies Ltd. specializes in the development of highly-efficient advanced motion control systems. Multi Axis Motion Control (MAMC) technology improves system efficiency, saves up to 50% of battery power losses, and enables system performance optimization without extra weight as well as additional volume. No need for any kind of ripple capacitors or other devices. Decreases passengers' exposure to RF & EM radiation.

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### EV



architects of energy™

<https://www.solaredge.com/>

### Storage/alternative energy

SolarEdge Technologies invented an intelligent inverter solution for harvesting and managing power in a solar photovoltaic (PV) system. The SolarEdge direct current (DC) optimized inverter system maximizes power generation at the individual PV-module level while lowering the cost of energy produced by the solar PV system.

Addressing solar market segments from residential solar installations to commercial and small utility-scale solar installations, the SolarEdge system consists of power optimizers, inverters, and a cloud-based monitoring platform.



StoreDot

<http://store-dot.com/>

StoreDot is developing a new type of electric-car battery consisting of specially synthesized organic compounds - the same innovative materials used in its FlashBattery for mobile devices. While the charging experience is similar to fueling a gasoline car, EV FlashBattery cost of ownership is only half per mile compared to existing electric-vehicle batteries.

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### EV/Charging





<http://www.turbogen-tech.com/>

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EV



ULTRACHARGE

<http://www.ultra-charge.net/>

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Batteries



<http://www.wi-charge.com/>

Electric charging

Developing a unique, lightweight, compact, multi fuel, ultra-low pollution engine-generator based on micro turbine technology. Using a unique manufacturing process for micro turbine generator coupling with unique bearing system (patent preparation) that allow to cut up to 50% battery cells and at same time keep or even enlarge a Hybrid Electrical Vehicle range per charge.

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UltraCharge replaces the graphite used for the anode (negative pole) with its own nanotube gel material made from titanium dioxide.

The company has patented a method for turning titanium dioxide particles into micronized (long) nanotubes, helping to speed up the chemical reactions taking place in an UltraCharge battery. This enables fast charging, improved energy density, and slower deterioration.

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Leveraging the proprietary wireless power transmission technology, we develop remote charging solutions that essentially enable mobile devices to recharge themselves without user intervention. Wi-Charge technology allows mobile devices to seize charging opportunities at home, at the office, or in a public place - without involving the user. From the user standpoint, the device is completely self-sustained, and acts as if it has an endless battery.

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