GREEN
VEHICLES

GENERAL CATALOGUE

OUR **EXPERIENCE**

LTRE 20 ANNI DI ESPERIENZA AL TUO SERVIZIO OVER 20 YEARS OF EXPERIENCE AT YOUR SERVICE

Strongly oriented towards innovation of mobility systems,
Green Vehicles srl operates on the national and international territory with turnkey solutions ranging from the supply of 100% electric vehicles, to the equipment of systems for parking and charging.

The range of electric vehicles is mainly aimed at companies, offering solutions aimed at the conversion of company fleets.

Green Vehicles can count on a wide range of equipment: starting from the standard chassis, many changes have been made to the loading spaces, directing them towards the
the collection of waste or the transport of particular goods, including equipment for refrigerated compartments.

Today, Green Vehicles is a manufacturer and distributor of Made in Italy electric vehicles, also able to prepare the electric transformation of vehicles with endothermic engines.

THE **MARKETPLACE**

THE SITUATION NOWADAYS

The world of road mobility is changing rapidly: electric vehicles are being tested in the areas of urban, commercial and car sharing.

Regulations in many countries are aimed at reducing the circulation of more traditional vehicles
pollutants in some urban areas making it increasingly difficult and expensive to circulate.

It is therefore increasingly necessary to equip electric vehicles to overcome these restrictions in traffic.

Reducing polluting emissions is a common goal that Green Vehicles and its spin-off Limcar also want to actively participate in.


GREEN
VEHICLES

TRANSFER **OF KNOW-HOW AND EXPERIENCE**

NOT A SIMPLE ADVICE

Green Vehicles srl aims, through its technologies, its experience in the field and decades of know-how in the sector, to support and promote collaborative projects with businesses that share the value and future perspective.

The role of Green Vehicles does not simply end with a one-time contribution.

Rather, it prefers a continuous and in-depth relationship with the partner company, to create and put on the road the ad hoc vehicles that the final customer has requested.

WE ACCOMPANY **YOU CONSTANTLY**

In line with this Vision, Green Vehicles srl is open to implement multiple technical solutions proposed and studied together with the partner company.

As a rule, the macro processes that Green Vehicles follows to start the project consists of:

1. ***Transfer of know-how and shared study of the project***
2. ***Start of prototype management***
3. ***Start of production***

VEHICLES: **BUS**

FULL ELECTRIC e MILD HYBRID FULL ELECTRIC AND MILD HYBRID VEHICLES

Green Vehicles is one of the few companies that deals with the transformation of buses and minibuses into hybrid or electric, also thanks to the technologies of the new components of Kit Mild Hybrid, Bi Modal or electric.

In terms of efficiency and autonomy, our buses offer the opportunity to have a vehicle that can access the historic centers and limited traffic areas of cities without problems.

The Green Vehicles buses are specially designed at the request of the customer.

They comply with EEC Directive R-66 (Anti-tipping) and Regulation L-118/1971 (Self-extinguishing of materials)

REFERENCES

OVER 20 YEARS OF EXPERIENCE

- Full Electric minibus to Sant'Agata di Puglia
- Mild Hybrid intercity bus to Sarnano
- School bus hybridization for Ristè

VEHICLES: **ELETTRACARGO**

ELECTRIC VEHICLES

ElettraCARGO è un veicolo dalle misure ridotte, ma dotato di un vano di carico molto capiente e facilmente gestibile, grazie alla presenza di un ampio portellone posteriore.

ElettraCARGO è un quadriciclo 100% elettrico, dotato di motore da 10 Kw raffreddato ad acqua, adatto al trasporto di rifiuti, attrezzature, alimenti, pacchi postali e molto altro.

Omologato per la circolazione su strada, è perfetto per muoversi in spazi stretti, tra i vicoli delle città o in aree private come grandi magazzini, golf club, mercati ittici ed ortofrutticoli, ecc..
ElettraCARGO is a small vehicle, but equipped with a compartment very large and easily manageable load, thanks to the presence of a large tailgate.

ElettraCARGO is a 100% electric quadricycle, equipped with a motor 10 Kw water cooled, suitable for waste transport, equipment, food, postal packages and much more.

Approved for road use, it is perfect for move in narrow spaces, between city alleys or in private areas such as department stores, golf clubs, fish and fruit and vegetable markets, etc..

REFERENCES

OVER 20 YEARS OF EXPERIENCE

- Turin Winter Olympics 2006: 50 vehicles for urban cleaning services.
- Beijing 2008 Olympics: 35 media with fine dust analysis system.
- Frankfurt Airport: special baggage handling equipment.
- Military bases and UN bases: 28 vehicles for transporting people and equipment

Technical Details:

Category of vehicle: heavy quadricycle
Maximum length : 2850 mm
Width: 1270 mm
Maximum height: 1910 mm
Electric motor: Brushless
Rated power: 5 kW
Maximum power: 10 kW
Battery pack: Lithium
Gradient ability: 18% Autonomy: over 50 to 150 km
Maximum speed: 45 km / h
Total capacity on the ground: 1100 Kg Front brakes: Disk
Rear brakes: Drum

Seats: 2
Frame: in enamelled painted steel
Electric motor

VEHICLES : ELETTRA**CITY by LIMCAR**

ELECTRIC VEHICLES

ElettraCity is the smallest vehicle of the range. This makes it easily manageable in the road traffic, but extremely comfortable.

ElettraCity is a 100% electric quadricycle, suitable for internal journeys in private contexts such as department stores, tourist villages and city routes.

It is a valid ally in urban centers and its modern design makes it appealing and innovative.

The solar panel on the vehicle roof can reach in summer up to 30% of the battery

ELETRACITY'S UTILITY

- Private: easy to drive, innovative design, full electric at an unbeatable price, also thanks to state incentives to buy electric vehicles.
- Public administrations, police stations, post offices and municipalities are just some of the possible applications.
- Car Sharing: rental of practical vehicles for the city centre or for holidays.
- Delivery: pizzerias, ice cream parlours, restaurants, florists, post offices, etc

Prototype Image

Technical Details:

Category of the vehicle: heavy quadricycle
Maximum Lenght: 2300 mm
Width: 1270 mm
Maximum height: 1850 mm
Electric motor: Brushless
Rated power: 5 kW
Maximum power: 10 kW Battery pack: Lithium
Gradient ability: 18% Autonomy: 120 km
Maximum speed: 45 km / h
Total capacity on the ground: 1100 Kg Front brakes: Disk
Rear brakes: Drum

Seats: 2
Frame: in enamelled painted steel
Electric motor

ELETTRACITY for DELIVERY

Practical and ductile, Elettracity can change equipment according to home delivery needs.
The main accessories to be installed are:

New generation **electric oven**, powered by the vehicle battery, to keep food warm and maximize deliveries.Three versions available.

Portable fridge of different capacities and sizes. Can be connected to the vehicle battery

Isothermal container of various sizes and characteristics, suitable for both keeping food warm and cold. Equipped with accessories and electrical outlet.

Closed or open containers of different sizes and colours

Baskets of different materials and sizes for delivery of fruits, vegetables, flowers, other.

ELETTRACITY Tourist - Vintage

The tourist version, with a retro touch, without doors and inserts in marine wood, mounts the same engine and the same battery packs of the 'sister' as standard and has the same technical characteristics, safety and interior fittings.
Possible different colors.

ELETTROVINTAGE: **SPIAGGINA 500**

ELECTRIC VEHICLES

The 500 Spiaggina is a 1960s timeless myth that immediately recalls the Dolce Vita atmosphere: holidays sunbathing at the beach and the golden years of the Italian economy.

Green Vehicles has decided to give new life to this model of yesteryear, making a vintage car completely electric, with over 90 km of autonomy and a speed that reaches 80 km/h.

La Spiaggina was born as an artisanal transformation of first post-war small cars, in oder to create unique cars and eliminating the roof, the windows, the doors and replacing the interiors.

Green Vehicles renews this all-Italian tradition, to revive a myth, providing it with a completely ecological engine.

The electric 500 Spiaggina, as well as being a real collector's item, is a highly suggestive car for the evoking of imagination in numerous contexts, from tourism to special events.

«**ELETTROVINTAGE**» **by Green Vehicles** includes all the transformations of vintage vehicles into completely ecological ones while maintaining their original charm.

We set no limits! Through a positive study of feasibility, we can electrify any vehicle.

ELETTRA**BUGGY**

ELECTRIC VEHICLES

Green Vehicles with ElettraBUGGY has focused on a unique and exclusive design that catches the interest of sports and automotive enthusiasts.

The fields of application for this full-electric vehicle are multiple: not only pertained in the sports environment, but also involving the world of agriculture and land control.

The vehicle has generated a new need in the target consumer by focusing on the values of ecology and saving resources maintaining high vehicle performances.

The vehicle is also produced in the Full Off-Road version, for those who love the off-road and its adrenaline emotions.

Mechanical features:

Seats: 2
Rear-wheel Drive
Wheelbase: 1926 mm
Reduction ratio: 1:10:24
Self-locking differential
Track: 1600 mm
Width: 1600 mm
Length: 1600 mm
Height: 1660 mm
Empty weight: 470 kg
Load mass: 205 kg
Mass in running order: 670 kg
Technically permissible maximum mass: 1000 kg
Front rims: 14 x 7 (inch)
Rear rims: 14 x 8 (inch)
Front suspension: Triangular superimposed
Rear suspension: Single arm
Shock stroke: 220 mm

E-BIKES

Choose an eco-sustainable option that provides a high economic advantage, and that helps you achieve your goals thanks to pedaling assistance.

DATI TECNICI	
Engine	Brushless
Power	250W
Recharge	48V
Max Speed	45 km/h
Autonomy	70-90 Km
Rated Power	17.5AH

Ebike Pro, 29’

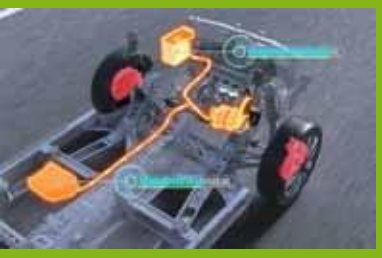
Ebike Full Suspension 27.5’

Ebike Lamassu 27.5’

Ebike Fat Bike, 26’

SYSTEMS AND **SOLUTIONS**

_HYBRID PATENTED SYSTEM



The hybrid Green Vehicles system is the easier way to homologate a hybrid car and get all the typical benefits of this classification.

The Patented System is a light hybrid one that includes an electric motor that does not replace the traditional endothermic engine, but actively participates in traction.

The electric motor, as for all the hybrid cars, also works as a generator in the deceleration and braking phases. As a matter of fact, it retrieves and stores energy that would be lost, in order to exploit it in the traction phase.

_FULL ELECTRIC

Thanks to the quality of the BMS and the battery packs, Green Vehicles electric cars offer maximum performance with an autonomy that gives the to support any travel necessity, whether it is designed for the transport of goods or people.

The 100% electric commercial vehicles as well as being a choice of eco-sustainable mobility, are the perfect solution for those who work in the historical centers or in the LTZs of big cities.
Suitable for the Last Mile mobility projects, the Green Vehicles Full Electric cars include a traction system that allows the vehicle to travel with zero emissions and that involves numerous economic benefits on the costs.

_RANGE EXTENDER

The Range Extender system solves all the main obstacles to the spread of electric vehicles with an economic and ecological solution: maximum freedom of movement and all the autonomy you were looking for at the same price as a traditional gas vehicle.

The Range Extender Kit is a mixed hybrid system that allows travel with electric traction, with the possibility of recharging the battery on board with a diesel generator.

This solves many of the problems associated with charging systems that hinder the spread of sustainable electric mobility.
The cost savings on fuel and vehicle management of the Range Extender electrical system is considerable (up to 30% for the fuel, reaching 35% for the cost of managing the vehicle).

_BI MODAL

The Kit Bi Modal is a hybrid parallel system that allows the journey either in thermal (Diesel, Petrol, LPG or Methane) or in electric, never simultaneously. The Bi Modal technology developed by Green Vehicles allows to exploit the vehicle's endothermic engine alongside an electric traction system. From the driving position it is possible to insert or exclude the traditional engine by selecting the ideal traction for the type of route to be covered. The original endothermic engine is therefore maintained, flanked by an electric motor and a small battery pack in order to allow the transition from traditional to electric driving through the controls of the car.

The use of the electric motor significantly reduces fuel costs (up to 30%) and vehicle management costs (up to 35%).

_DIESEL-GPL

The Diesel-LPG System grants the simultaneous mixing of Diesel and LPG fuels. The transformation of a diesel engine into a double-mixing engine permits to obtain less polluting vehicles, with positive effects on the environment but also with numerous easenesses for circulation.

The Diesel-LPG system, in fact, allows a 60% reduction of the particulate emissions and a 20 % reduction of carbon dioxide and nitrogen monoxide.

Due to the lower emissions, vehicles that use diesel-LPG double mixing have access to many areas with limited traffic and it is therefore possible to circulate in historic centres and in LTZs.

_REVAMPING

Green Vehicles takes care of the second-hand vehicles revamping. We renew the entire body and every component of the worn out car.

We also carry out the complete repainting of the vehicle to restore its aesthetics.

With the revamping of the vehicle it is possible to reestablish the appearance and the performances of the vehicle.

In the vehicle evaluation phase it is also possible to replace totally or partially the engine with an electric one, in order to reduce maintenance costs and obtain a car with low emissions

ELETTRIFICATION OF OTHER VEHICLES

ELECTRIC VEHICLES

The Retrofit Decree n.219 / 15 entitled “Regulation concerning an electrical requalification system for equipping M and N1 cars”, establishes under article 4 that “Each electrical requalification system is designed, constructed and assembled so that, in normal conditions of use and despite the stresses to which it may be subjected, the original characteristics of the vehicle in terms of performance and safety are not altered and can resist the corrosion and aging agents to which it is exposed ”.

The future regulatory plans regarding mobility follow a logic of non-access for private and commercial vehicles, which are exceedingly polluting for urban areas and city centres.

Our total electrification (100% electric) or partial electrification (hybrids) kits allow emissions to be reduced and therefore represent the solution for those who want to keep entering limited traffic areas.
To follow some vehicles that have been electrified in the past.

PORTFOLIO

SOME FINISHED PROJECTS

N° 26 Ecomile – ROME AMA

n° 1 Ducato Minibus- Sant'Agata di Puglia Municipality

N° 22 Jolly - Medi Ambient, Barcelona

N° 1 Jolly 2000 – Bruxelles Airport

N° 1 Jolly - AMSA, Milan

N° 6 Ecomile - Medi Ambient Barcellona

Nº 1 Elettra -AMIATurin

nº3 Elettra- KOMOP, Croatia

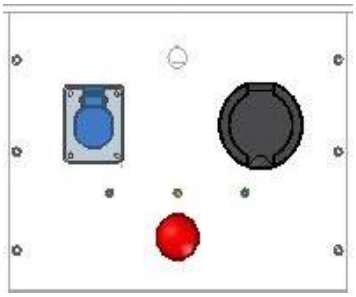
nº 2 Elettra – SELVA BOEMA National Park

nº 27 Elettra - MI MUOVO ELETTRICO-FREE CARBON CITY Emilia Romagna

ElettraCargo colour schemes

RECHARGE SYSTEM

The charging station is an equipment that allows the charging of electric vehicles. The use of the GM CR01 charging column is not allowed for other purposes.



Green Vehicles has two types of columns available, but it is possible to supply any column according to the customer's requests.

Available systems:

- Column in painted sheet steel with 1 socket Type 3A 16A 230V 3.7kW with RFID identification
- Column in painted sheet steel with 2 sockets Type 2 32A 400Vac 22kW plug / cover block. Equipped with software

The supporting structure of the charging station is made of steel and completed with a plexiglass panel on the front.
This structure guarantees structural resistance and electrical insulation. The internal electronics and the relative power part is enclosed in an IP65 framework that guarantees adequate protection against atmospheric agents and allows installation outside.

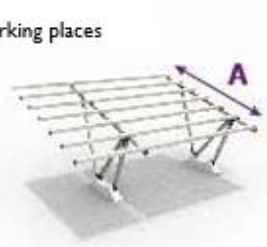
The Wall BOX is a charging station that can be inserted in the external environment of your apartment so that you can charge electric cars.

As for the columns, also for the Wall Boxes we only have one available. However, we can supply any charging station based on customer requests

Wall Box available:
- Complete Wall Box with 32 A Type 2 socket, up to 7.2 kw.

SOLAR CARPORT DATA SHEET

A single structure is able to cover long rows of parking spaces reaching a maximum length of 600 cm. This page shows some indicative versions of the number of photovoltaic panels that can be installed in a horizontal way.

	2 Parking places		3 Parking places		4 Parking places	
						
A max	500 cm	600 cm	500 cm	600 cm	500 cm	600 cm
Panels	15	18	25	30	30	36

	5 Parking places		6 Parking places	
				
A max	500 cm	600 cm	500 cm	600 cm
Panels	40	48	45	54

The structure has brilliantly succeeded in its load test, reacting to the maximum load required by static calculations with no permanent deformation. On each rafter have been laid for 4 days two weights about 200 kg each, exerting maximum effort on the joints of the structure.

CUSTOMIZED SOLAR CARPORT

INSTALLATION COMPONENTS
-Reinforced concrete anchoring bracket
-Bracket + 2 pickets for compact grounds
-Bracket + 4 pickets for compact grounds
-Bracket + 6 pickets for compact grounds

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