

# TESLA Home clean energy solution

We propose to coin an idea to TESLA Powerwall products to expand in the market.

June 2020



# Does Solar Panels costs justify its benefits?

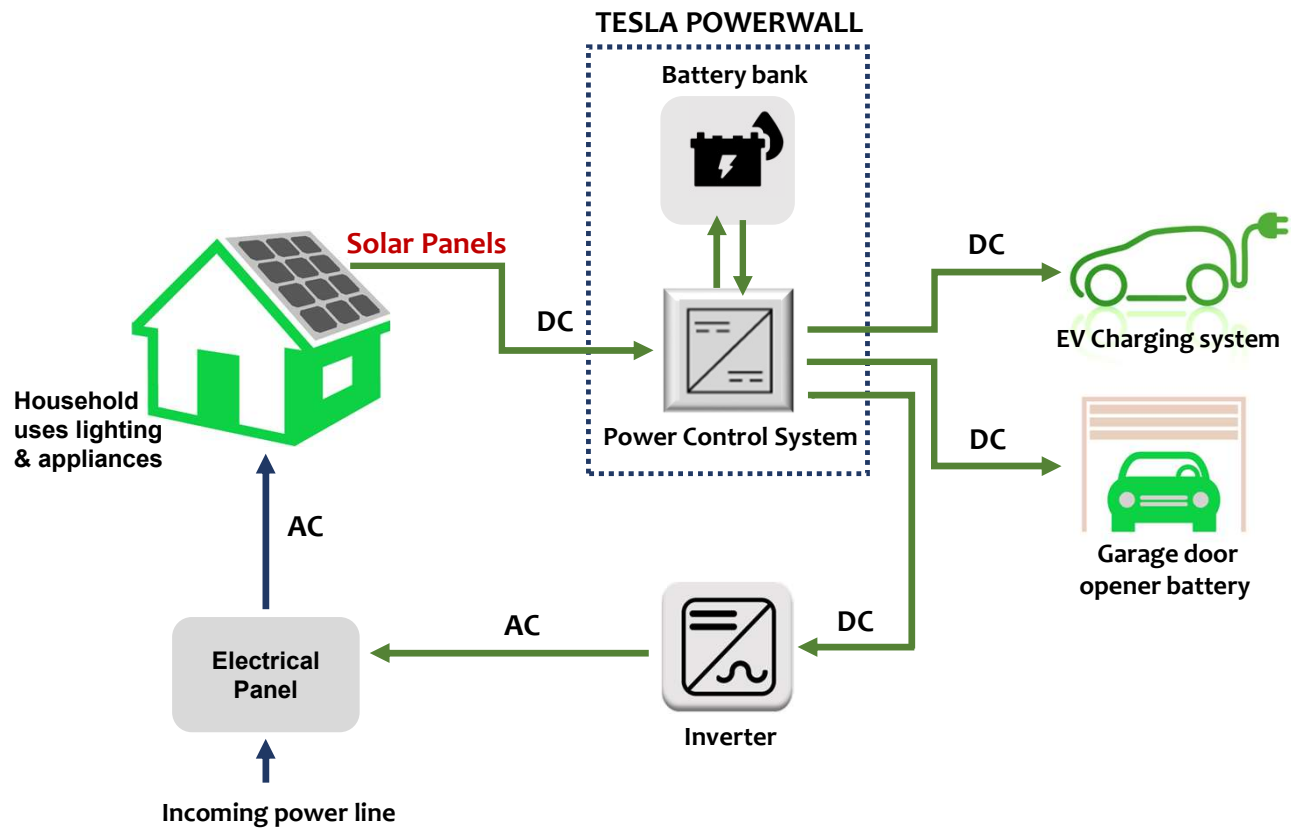
**Tesla's Home clean energy solution is one of the best technology for EV charging, Garage door opener battery and Lightings & Appliances for households.**

Ferraris believe there are still improvements that could be made.

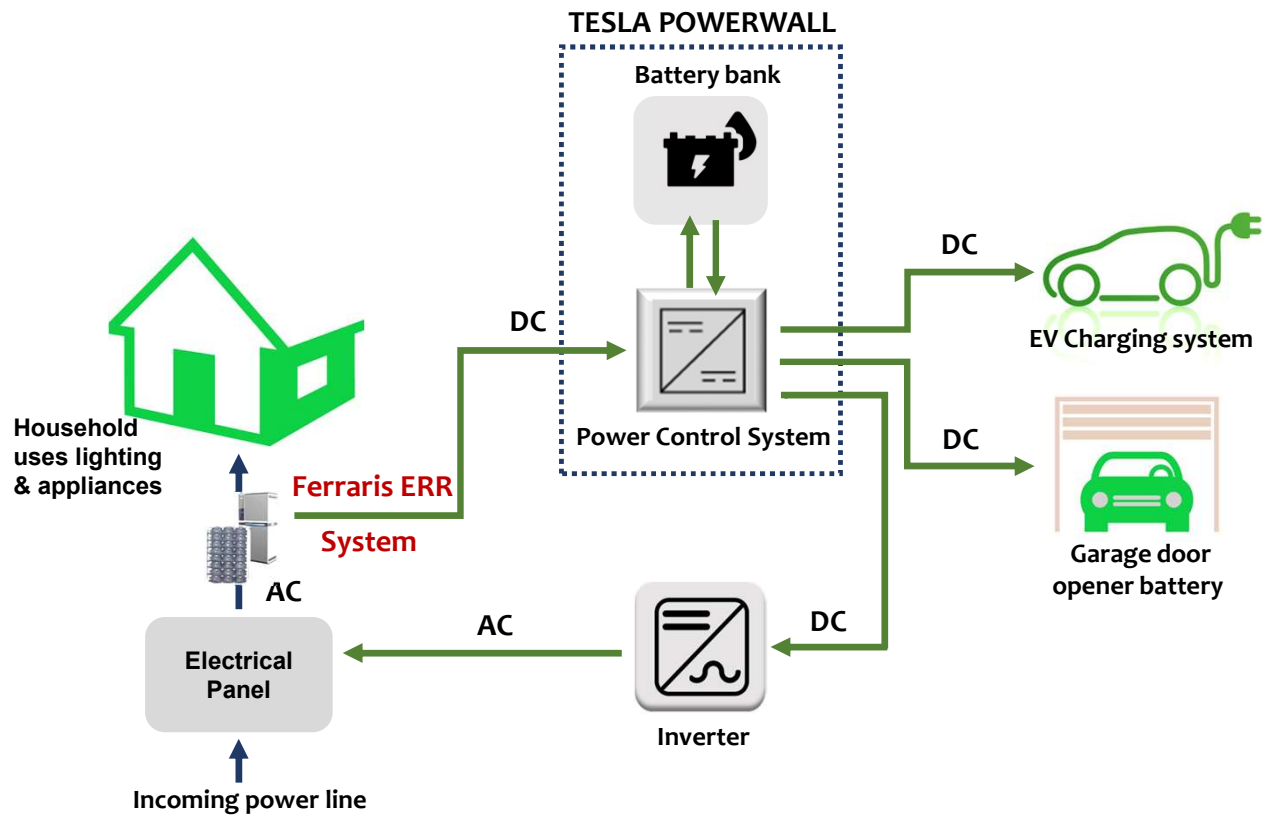
- A typical solution to generate clean energy in a normal household is to install solar panels.
- Is installing cumbersome solar panels on your beautiful house roof really the best solution ?
- Do you believe the energy generated from the solar panels increase the value of your property ?
- Have you ever thought that the solar panels could potentially damage the valuation of your property ?
- What if, you were able to keep your property's aesthetics and still use Tesla's Home clean energy solution ?

- With Ferraris ERR System (for Home edition), you are able to achieve really clean energy without damaging the aesthetics of your home with solar panels. In short, by replacing solar panels with Ferraris ERR System, you will be able to continue using Tesla Powerwall home system without the need for installing solar panels on your house roof and even more.
- There is obviously pros and cons to using Ferraris ERR System over Solar panels
- The biggest difference is:
  1. During a power outage, solar panel can continue to generate electricity and continuously recharge the home battery to provide power to your house during daytime. However Ferraris ERR System can only provide power for the charged capacity of the Home Battery (note that average power outage is 3 to 6 hours) because Ferraris ERR System can generate power only when main house power is live, not during power outage. This system can not be applicable where there is no power line available.
  2. Solar Panels can effectively only generate power for maximum of 5 to 8 hours a day. Ferraris ERR System can generate electricity for 24 hours a day and charge the Home Battery as long as main power line is active, and the excess power can be used by the household. Due to this, total power design capacity can be smaller than that of Solar or higher capacity based on the same size of design.
- Ferraris ERR System for Home edition is providing a revolutionary paradigm of efficient electric power solution for house by using **magnetic energy harvesting technique based on existing power lines.**

# 1. Configuration of Home into a self-powered (Using Solar Panels)



## 2. Propose configuration (without Solar panels)



### 3. Spec Sheets of Ferraris ERR System (for Home edition)

#### Basic Operation

- Ferraris ERR System (for Home edition) Harvests Magnetic Energy from Incoming power lines by using Magnetic Cores.
- Average electric power generation from this Ferraris ERR System (for Home edition) is 2KWatt, which is almost the same as a Solar panel solution (4.1kW).
- Without a power outage, it electric power generation can be possible for 24 hours a day.
- Two Ferraris ERR Systems can be combined to double their power capacity. This enables faster charging speed and electrical energy savings into the Battery bank.
- Collected power output can be connected to TESLA POWERWALL, and the electrical outputs can be compatible with Solar Input (DC format).
- This new configuration can reduce the reactive power by isolating load and main power line, which will increase Power Factor (Improve energy efficiency)

#### Basic Features

- Emergency shutoff function. In case of Core malfunction, Ferraris ERR System output is shutoff to protect other system.
- Real-time checking ambient condition. (Temperature, Humidity and Dust etc.)
- For each harvested output are monitored and remote controlled in real-time and these status data are sent to the Ferraris monitoring system and customers.
- Easy and quick install.
- The Ferraris ERR System is installed in one corner of the garden or near of the electrical panel.

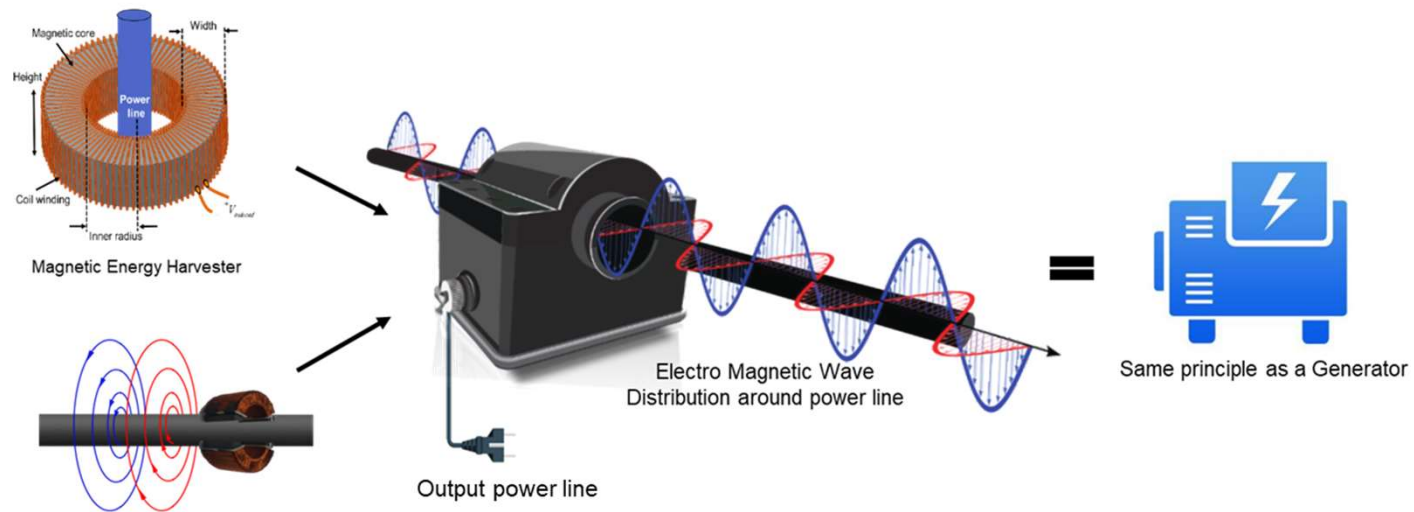
Ambient operating specification	
Temperature range	- 4 ~ 167°F
Humidity range	30 ~ 80 %
Cooling function	Type A
	21 Watt

Physical Specification	
Dimension (W*L*H)	24 * 20 * 32 (inches)
Weight	180 (lb)
Material	AL
Primary line terminal size	0.43 * 1.38 (inches)
Primary line cable thickness	Ø95 ~ Ø450

## 4. Ferraris Technology

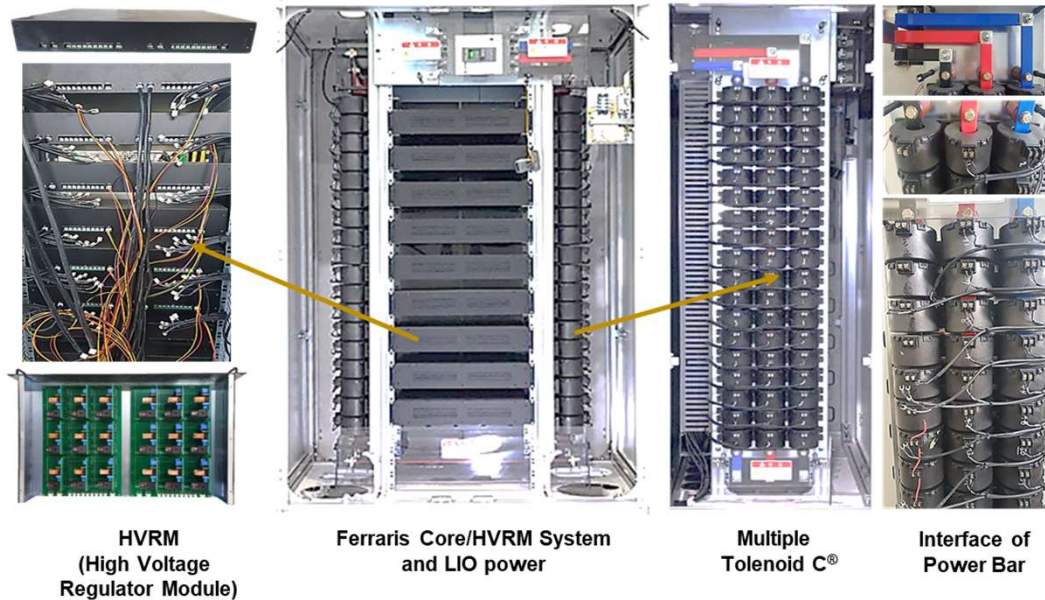
A Ferraris technology which harnesses induced electrical energy from the magnetic energy variation produced from the power line regardless of the power line voltage. The world's first technology that only Ferraris has – Linear power scalability (<https://youtu.be/Y3IR5djt5hg>), input/output power Variation controllability and Single digit mass production loss ratio.

Ferraris Tolenoid C<sup>®</sup> is designed, developed and manufactured mainly for the electrical power generator.



## 5. Ferraris ERR (Energy Recycling Reservoir) System

Ferraris ERR System is designed to be multiple contactless (Linear power scalability technology) attached to incoming power lines to harness induced electrical energy from magnetic energy variation produced from power lines. The harnessed electrical energy then can be stored in the battery to be used when needed or real-time distributed to the Load, which means magnetic energy harvesting and using power for Load are happened at the same time. (The pictures below are 20kW per unit models.)





## 6. Estimated electricity production by Normal Ferraris ERR System :

Case	Configuration of Ferraris ERR System	R, S, T Line Current (Ampere)	Using R, S, T Line	Using Ferraris Core/HVRM system (20kWh)	Supply power to the Load	Supply power (kWh/each the Load)	Total supply power
1	Basic	100~350	1	1	1	20	<b>20 kWh</b>
2	Cascade	100~350	1	3	3	20	<b>60 kWh</b>
3	Cascade	100~350	1	3	1	60	<b>60 kWh</b>
4	Cascade	100~350	4	12	4	60	<b>240 kWh</b>
5	Parallel	200~600	1 (line split)	2	1	40	<b>40 kWh</b>
6	Parallel & Cascade	200~600	1 (line split)	6	1	120	<b>120 kWh</b>
7	Parallel & Cascade	200~600	4 (line split)	24	4	120	<b>480 kWh</b>

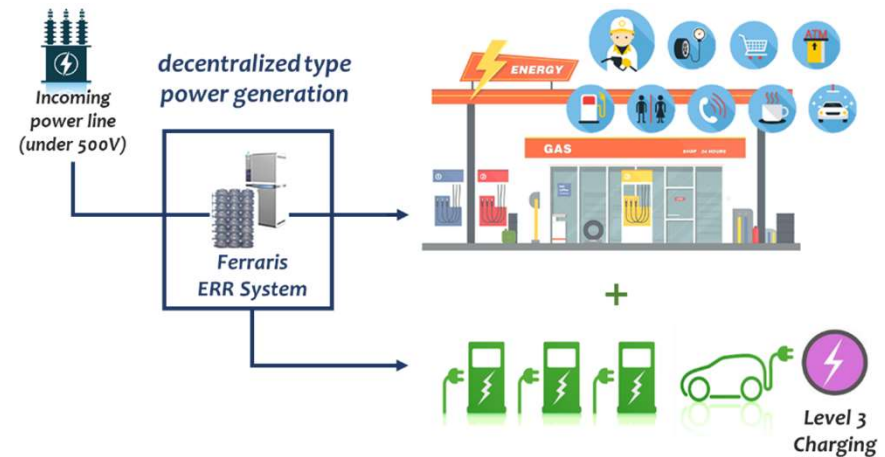
## 7. EV Charging station (Level 3 Charging)

- Current EV Charging station



- ✓ Current EV Charging station can not support Level 3 charging without changing Incoming power line method.
- ✓ Level 1 Charging - Up to 2 miles, 30 minutes
- ✓ Level 2 Charging - Up to 10 miles, 30 minutes

- In the future, EV can recharging *Anywhere*



- ✓ Currently, Gas station using electricity for customer service.
- ✓ Ferraris ERR System make Gas station possible to support **Level 3 charging.**
- ✓ DC Fast/Level 3 Charging - Up to 90 miles, 30 minutes



***Electric energy is Electromagnetic energy,  
Our approach to a new paradigm of efficient electric power  
generation and recycling !***

*If there are any questions, please feel free to contact us as below,*

[tech-sales@ferrarispower.com](mailto:tech-sales@ferrarispower.com)

6671 S. Las Vegas Blvd.,  
Building D, Suite 210,  
Las Vegas, NV 89119 United States  
office +1 (702) 483-0072  
[www.ferrarispower.com](http://www.ferrarispower.com)