



DIFFUSION OF INNOVATION WITH ELECTRIC CARS IN 2030 A DISCERNMENT

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Abstract

Nature is facing a great problem with the pollution. Rapid growth of industrialization and the increase of vehicles are the major reason for pollution. The Carbon let out from the industries and the petrol and diesel cars which cause damages in the ozone layer. It will affect the human society in a vast level. Need of an hour is creating mass awareness of this prime CO₂ problem to the billion population of world. It is necessary to take corporate social responsibility to reduce the Carbon level emission from their industries and to find out an alternate way for preventing the pollutions. To avoid this and build a better world of healthy and pollution free is via Green marketing, its scientifically implemented by change the trend in the automobile industry by Electric cars. Second step is to achieve paradigm shift in technology advancement and large scale commercialization of such sustainable green products. This Paradigm shift in World of Car is not an option, rather mandatory to Save Mother Earth from. Near future, that is 2030 and beyond will be a Fossil fuel free, carbon less or carbon nil cars. It is the responsibility of every human that not only save money for their future generation and also want to give a pollution free world for their child's. This article shows how we can make possible for the E-cars in the market.

Keywords: Global warming, Electric Car, Green Marketing.

1. Introduction

Paradigm Shift in Automobile Industry

Greatest Phase out of good old Mechanical Technology is round the corner in Automobile Industry all over the world. All over the world, 1 Billion Mechanical Car plying in the road Urgent phase out with Electrical Car had just begun. Electrical Car buy would accelerate in the next 10 to 14 year for complete phase out of Petrol or Diesel based Mechanical Car. Great Good Bye to Petrol & Diesel Car! Now the question in front of us is, Is it by 2020 or 2030?. This Paradigm shift in World of Car is not an option, rather mandatory to Save Mother Earth from ICU (Intensive Car Unit). Near future, that is 2030+ will be a Fossil fuel free, carbon less or carbon Nil car.

Macro to Micro

Automobile industry had grown many folds. Thanks to humble beginning by Henry Ford and his Ford Motor company's Mass Production Innovation in 1912. Right from 1900 up to 1912 there was a dilemma in the world of Automobile Industry whether Electric Car will rule the future or Mechanical Car will rule the future?

Due to Process Innovation, in the form of Mass Production happened at Ford Motor Company and slashing of Mechanical car price from \$ 960 to \$ 340 in 1914 made car affordable to common American. Over the last 102 years, Mechanical car price is dearer to consumer.

Over the last 50 years lot of developments took place in Electrical car Industry. But, nothing equal to break through innovation of Tesla EV. Tesla Electric car 100 miles per charge, two years back to 240 miles per charge now and 400 miles per charge round the corner. Now, American Company Tesla set the new precedence or benchmark for all the leading Mechanical Car manufactures to innovate in Electric car, accelerate their performance in par with Tesla.

Meantime 'Google', yester years search engine company, today mobile phone company will be a aggressive player in world of driver less car by 2020. Unprecedented action is on in Car Industry is on all over the world. Thanks to cumulative effect of Technology pressure, Environmental Pressure, World/Variou countries Economic Recession pressure and COP 21 Paris Climatic Control Conference Agreement compulsion. Instead of looking at the car from world to individual, let us look at from Individual to World.

It is high time for individual as well as world to graduate to 100 % EV car charged by Renewal Power like Roof top Solar or Wind or Biogas or Hybrid based Heaven power car! Paradigm shift in Automobile Industry is on all over the world. In India EV trend has just started.

In Nature everything was in perfect rhythm. Man Created Imperfect World. In Nature there was no imperfection, but mankind systematically created imperfect world, that too in the last 246 years, Carbon based world in the name of



industrialization of society. This is a high time for mankind to make course correction by applying common sense in uncommon level and develop sustainable carbon less world.

2. Mass Awareness To Mass Action

First step or Need of an hour is creating mass awareness of this prime CO₂ problem to 7.35 billion population of world. Second step is to achieve paradigm shift in technology advancement and large scale commercialization of such sustainable green products. Third step is to make world citizen to lead a simple life style to create carbon less economy or Green Economy. All these three things should happen on war footing basis to nullify the CO₂ effect on civilization.

Birth of steam engine by James Watt during 1769 changed the mobility of man from less than 5 miles per hour speed of walking to today's unbelievable speed of 18,000 miles per hour through Space shuttle.

According to Newton's third law, Every action has got equal and opposite reaction. In line with that birth of steam engine was a birth of Carbon based economy. CO₂ level in the atmosphere increased from pre industrial time level of 250 PPM (Parts Per Million) during 1750 to threshold level of 350 PPM during 1988, November. On 13th July, 2013, CO₂ level in the atmosphere has crossed 400 PPM, highest in 3 million years. Today CO₂ level in atmospheric air has reached 410 PPM. CO₂ level in the atmosphere is expected to reach a level of 450 PPM CO₂ during 2023 and then 500 PPM CO₂ during 2033.

3. Vital Oxygen Deficiency

One can live without solid food for 15 days; one can live without liquid water for 5 days, but no one can live without air more specifically Oxygen for breathing for 1 or 2 minutes. Such a vital air for breathing polluted to the core in the last 25 years. It was not a natural phenomena, rather it was a manmade disaster. Most of us are not aware of this prime CO₂ problem of this world, even today, after this phenomena had reached a flash point. In another 7 years from now, that is during 2023, CO₂ level in the atmosphere will reach 450 PPM. Once, world CO₂ level crosses 450 PPM, 50% of the human being living in this earth will have the breathing problem or suffocation problem during normal breathing, due to Oxygen deficiency.

By 2033, exactly 17 years from now, every world citizen should carry a Oxygen Cylinder at the back and attach a mask from that cylinder to nose for normal breathing of 24*7. This alarming situation is known to scientific community but they prefer various country head to take corrective policy action to mitigate this Global Warming and commit large scale fund to make it happen. Need of an hour is GSR, CSR, ISR.

GSR is nothing but Government Social Responsibility. CSR is all about Corporate Social Responsibility. Both are macro in nature beyond the control of an Individual. ISR is all about Individual Social Responsibility, rather well within the control of an Individual.

4. Urgent Action to Buy Carbon Less Car

We have only one world. We have to hand over the better world to next generation to lead a better life that too in a vibrant way. We should not to leave the worst world for next generation with such an artificial living environment of living with Oxygen Cylinder at the back for 24 hours. Biggest problem in this world is fix the problem, rather than finding solution. How CO₂ level in atmosphere is going up?

Increase in vehicle population. During 2012, world produced 6 crore cars of Petrol or Diesel, highest volume in a single year. Around 100 Crores cars are plying in the road all over the world emit CO₂ to atmosphere every minute basis. All over the world, 10.5 Terra Watt of Power was produced during last year. Around 75 % of this power production happen by Thermal Power route, by burning coal. Population explosion taken place from less than 1 Billion during 1904 to 7.35 Billion during 2015. Explosive growth of CO₂ level in earth atmosphere by 2050 to the tune of 700+ PPM is expected. In turn this world will become unfit to live for Man as well as for various plant and animal kingdom. Time to act now on this prime issue to avoid disaster at a later date.

5. Paradigm Shift Warranted

There is an Urgent need for all of us to move on from Carbon based world to carbon less world and emergency way to mitigate Global Warming through large scale reduction of car or paradigm shift from conventional petrol or diesel or gasoline based car to Electric car. Electric car to be charged by Renewable power produced by either Roof Top Solar power plant or Roof Top Wind power plant or Roof Top Hybrid Power plant (60 % Wind power + 40 % Solar).



By way of Rio 1992 Climate Control conference, then subsequently, Rio + 20 = 2012 Climate Change Conference, lot of noise by way of talking is going on among various country heads about mitigating Global Warming but little action is going on or very slow action is going on to save mother earth from ICU. Mother earth is in ICU, nobody cares. No one is serious, except celebrate Earth Day every year April 22nd.

It looks like an Everybody, Somebody, Nobody, Anybody story.

During Climate Change Paris 2015, COP 21, 196 countries of world first time signed legally binding, international agreement to keep average global temperatures no more than 2 degree Centigrade above pre industrial temperatures. First major historical step to reverse CO2 clock!

If this today's exponential addition trend of CO2 emission to atmosphere continued for next 20 years in this world, then 2033 all over the world people should carry Oxygen cylinder at the back to have normal breathing.

6. Individual Life Style Change To Save Mother Earth

6.1 Need Vs Greed As Mahatma Gandhi rightly said, in this world we have enough things to meet out the need of every individual not the greed of every individual.

6.2 Paradigm shift - Urgent Need

Small..Small contribution made by small people in various parts of the world in the above three angles will significantly and dramatically alters the course of this world in mitigating Global Warming and to achieve sustainable development. That small is "WE".

We should be first aware about the urgent need to develop carbon less development, in spite of population explosion and fast track world GDP growth.

Here again only solution to solve Global Warming crisis is to change our life style by following the Gandhiji's life style prescription of " Simple Living, High In Thinking "

7. E Car (Electric Car) To Save Mother Earth

This is high time for individual world citizen to aware about urgent need for paradigm shift and practically move from Greed based carbon intensive development to Need based carbon less sustainable development consciously that too immediately to save mother earth. It is a situation of NOW or NEVER. One of the major solutions to solve the Global warming is

By 2030, all our existing 1 billion car available all over world, in the road will undergo radical shift and go out of world road and give a way towards Electrical Car. Again electrical car will be charged by Heaven Power (Wind, Water & Solar), not Hell Power (Coal, Natural Gas, Diesel etc.,)

Let us open up our eyes for emerging reality. By 2020 one out of four new cars of US is going to be Electric City Car. By 2030, 90 % of US new cars will be Electric City Car, MOST ENERGY EFFICIENT AND FREE ROOF TOP SUN / WIND POWERED CAR. Just like we charge mobile phone daily, every car of world will be charged by electrically on daily basis that too using Renewable Power not conventional thermal power. It's Sustainable Development Era more specifically Renewable Power Era & Sun Power Era. Let us Live Harmonious with nature reduce our Carbon Foot Print and have a concern for Mother earth all 365 days of a year, not only on 22nd of April of every year. We live only once, if we live harmonious with nature that will do! Summary or Urgent Action required from World Citizen: ISR (Individual Social Responsibility) to Save Mother Earth from ICU.

It is high time to graduate to 100 % Electric car fully to reduce your carbon foot print, reduce contribution of SO_x, NO_x, CO and SPM (Solid Particle Matter). Are you a owner of 100 % EV car charged by conventional Fossil Fuel based Hell power?

It is high time for individual as well as world to graduate to 100 % EV car charged by Renewal Power like Roof top Solar or Wind or Biogas or Hybrid based Heaven power car !

Paradigm shift in Automobile Industry is on all over the world. In India EV trend has just started. Instead of waiting for Government to act and Corporate to act, let us save mother earth from ICU as a responsible world citizen.



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