

Green Car Concept For Retaliating Energy Scenario In India – A Review

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Abstract: The word "Green" itself describes as "no harm" and the word "Car" is clearly known to everyone. The prototype which we are going to make is 7-Seated Car which is driven by paddling of the persons who sitting in this car in face to face position. The seventh person will only control and steer the vehicle. Here the car has a new mechanical device i.e. differential, which is not ever induced in the model made so far. This will reduce the turning radius of the vehicle, which is a prior requirement of Indian roads. As the power produced is done by all the people sitting in the car, the fatigue to individual is very less. As the fuel depletion is at high rate due to increase in consumption thus these kinds of vehicles are the future of the world. Hence initiation and making awareness by the prototype can convert the face of emerging nation.

keywords:- fuel, car, pedal

1. Introduction

As soon as this word comes in our mind we think of everything which is driven by power from chemical energy to potential energy, kinetic energy and mechanical energy. This itself is a very broad topic to interpret and discuss since energy has no boundations at all and its utilization is beyond imagination.

But in this non-stopping world energy is also came to a halt, since its degrading and vanishing, not all like what we can produce from thermo electric station but the one which are conventional sources of energy i.e the petro products which are not left for more time in this evolving earth, mother nature has blessed us with very rich sources of conventional sources of energy but due to the usage man has used almost all the natural sources available and will be emptied very soon.

In recent years availability of power in India has both increased and improved but demand has consistently outstripped supply and substantial energy and peak shortages prevailed in 2009-2010. There are also various estimates of 25000 to 35000 MW of power being produced by diesel generation to meet the deficits. Electricity shortage is only not the problem. However in the long run if we take the effects of the pollutants on human health and environment and cost as well as efforts needed to improve or alter the path of degradation, the initial higher cost of using renewable resources for producing energy may not be too big.

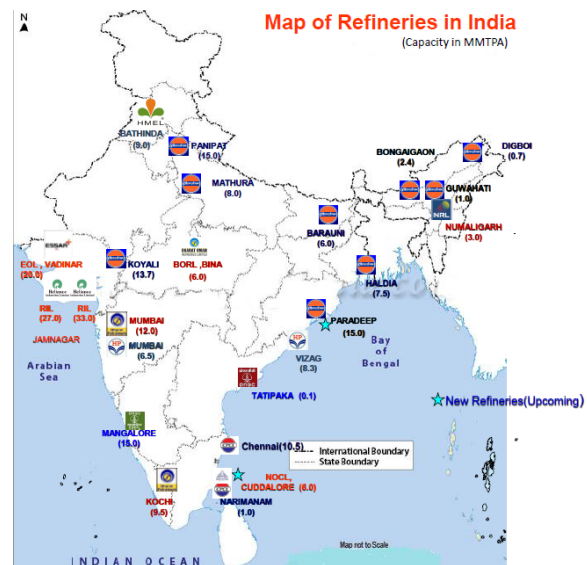


Figure 1 – Energy scenario in India

Source:

<http://ppac.org.in/WriteReadData/userfiles/file/IndiaRefineryMap.pdf>

(As on 31.03.2014)

1.1 REFINERIES OF CRUDE OIL IN INDIA

1. As on 31.03.14 there were a total of 22 refineries in the country, 17 in the Public Sector, 3 in the private sector and 2 in joint venture.

1 PRESENT ENERGY SCENARIO IN INDIA

- There is no change in refining capacity in the country (215 MMTPA) over the period of one year.
- The Refinery production (crude throughput) achievement was 222.497 MMT during 2013-14 which marks net increase of 1.5% over 2012-13 (219.212 MMT)
- Capacity utilization of the refineries was 101.9% during 2012-13 which increased to 103.5% during 2013-14. In the Public Sector the maximum increase in capacity utilization (12.9%) was at ONGC, Tatipaka, Andhra Pradesh.
- In the Private Sector the highest increase (6.8%) in capacity utilization was at RIL(SEZ), Jamnagar, Gujarat.
- Indian Oil Corporation, the state owned corporation had highest refining capacity of 53,126 TMTY. All units of IOC together processed 53,126 TMT during 2013-14 as compared to 54,649 TMT during 2012-13. The capacity utilization of these refineries was 98% during 2013-14 as against 100.8% during 2012-13.
- All the private refineries taken together processed 88,229 TMT during 2013-14 as compared to 88,273 TMT during 2012-13. The capacity utilization of these refineries during 2012-13 and 2013-14 was constant i.e. 110.3%.

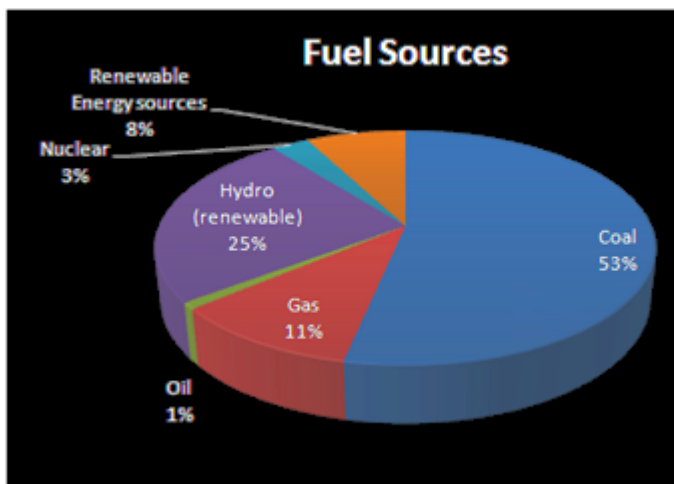


Figure 2 – fuel sources

2 LACK OF HEALTH CONCIIOUSNESS

Now a days people are running like horses for their career and the related stuff, life of the people has changed a lot the things which were once existed in homes for just showing standards had now became the need of the human like CARS, AIR CONDITIONERS. They not even care about their health since they find it putting extra effort and think it like the burden to conserve energy. Due to which they not even care about their health.

3 CONCEPT OF GREEN CAR

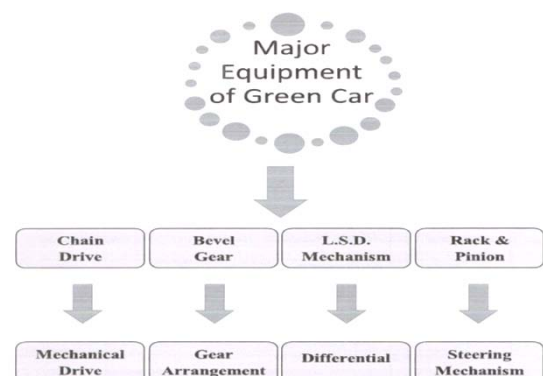
This is a noble approach in both ways this single mechanism is capable of providing people a emission free transport where as at the same time it will benefit them on the health point of view

Green car is a concept in which a car with four wheels, a simple steering geometry , two drive axles , and seating capacity of 5-6 people at a time but the only difference in it than a conventional car will be, the green car will be pedal driven rather than power driven from the chemical energy of fuel. That is the people who will be sitting on that car will need to operate the pedal synchronized with each other for a common drive. Benefit of the above concept will be the conservation of energy while providing a good healthier exercise to the people for their daily short commute.

4 METHODOLOGY

The optimum methodology suited to meet our purpose will be cycling since this is the type of exercise which comes first in any ones mind when they thought about his health. The pedal driven cycles are the best way to stay fit and in shape. Hence we considered this as the most optimum methodology to drive our green car that is the car itself will be pedal driven but rather than single operation this car will be driven by a group of people either 6-8 people sitting in synchronous manner for driving the car in a defined way or path a driver must also be there in order to steer the vehicle in various positions. In this way people can look after there health as well as ride on a emission free way hence helping nature and providing mother nature a gift.our basic need will be the health and emission free environment for which the green car will definitely act as a solution. The green cars constructional detail will be followed by a rigid frame construction on which 6-8 people can sit and pedal the vehicle a long drive and propeller shaft which rotates and drives the bevel gear, which provides motion to the rear axle and thus providing the drive at the rear wheels. This car will also consist of roof top and steering mechanism to maneuver the vehicle in turns. Seats will be attached to the frame for the people to sit and pedal it.

5 CONSTRUCTIONAL INTERFACE



6 CONCLUSION

- A smarter way to make people healthy as it provides work out for all the persons riding on green car.
- Reducing the fuel consumption and its wastage.
- Can be employed at various places where riding distance is up to 10 km

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