

Waste  
Wealth

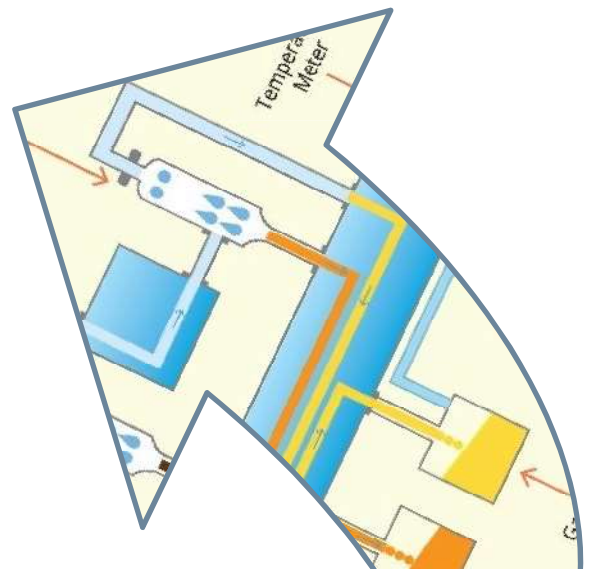


अल्टरनाफॉस एनर्जी  
ALTERNAFOSS ENERGY (P) Ltd.  
[www.alternafoss.com](http://www.alternafoss.com)

*Unlocking the Potential & Value adding Opportunities*



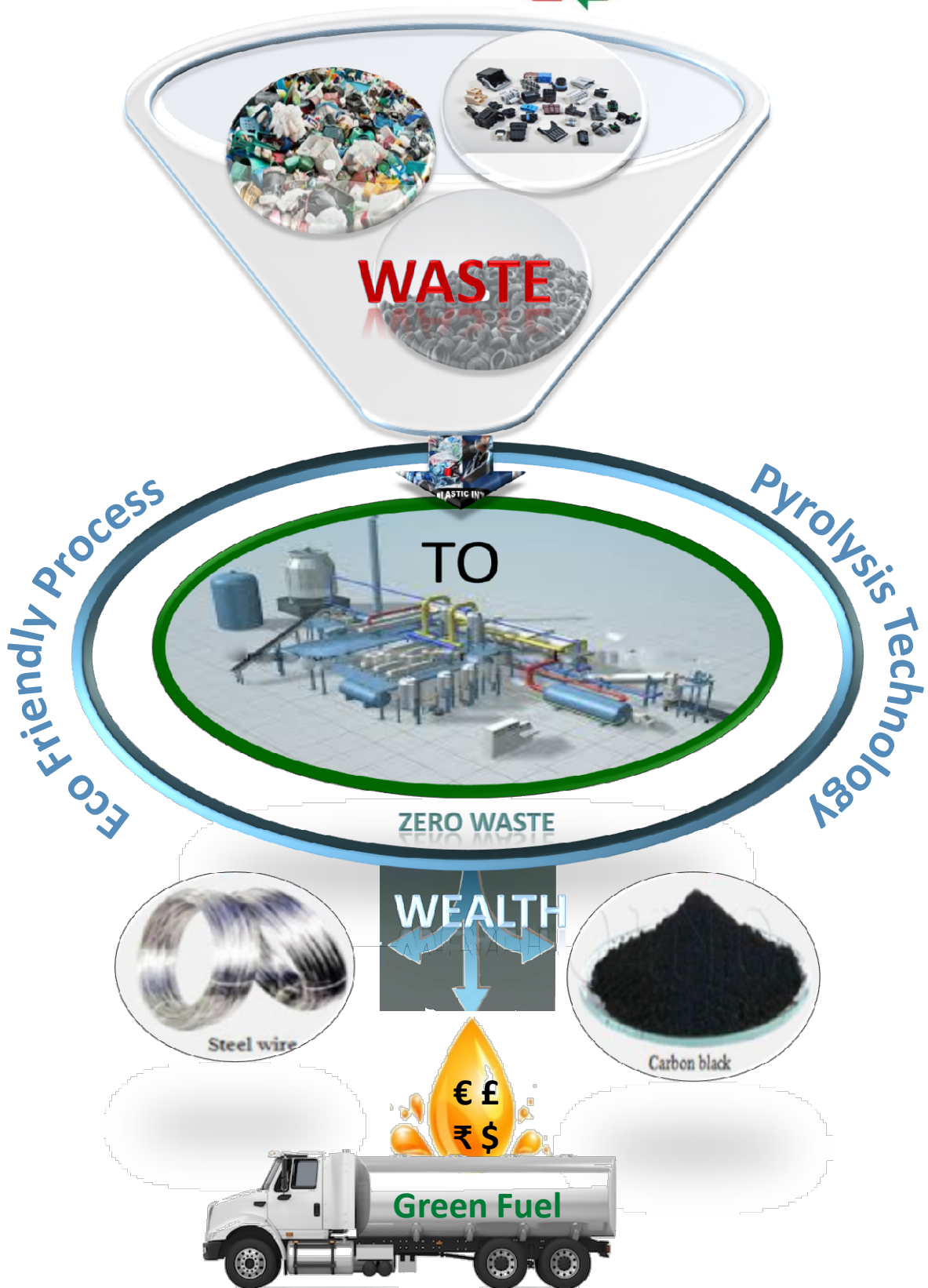
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Eco-friendly Plastic & Tyre Waste Pyrolysis



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The new Era of: *Pyrolysis Oil / Bio Fuel*



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## About us :

Alternafooss Energy (P) Ltd founded by Mr. Sameer Abdul Sattar Al Baloshi ,Mr. Suresh Kumar Singh & Mrs. Manju Singh under startup India Flagship with core focus on Renewable energy sectors. Alternafooss is consistently thriving on efforts to develop environment friendly technology which will be helpful to the society and in long-terms for the sustainable growth.

Equipped with a well organized R&D centre , Alternafooss Energy has come up with new Pyrolysis division with a specific and global solution to burning issues of Plastic & Tyre waste .

The greatest challenge to the 21<sup>st</sup> century is recycling the ever increasing multiple solid waste like tyre, plastic ,rubber, electronic and municipal waste and converting them into preciously high level of latent energy . Despite the development of innovative technologies and green energy projects we all fail to manage the daily generation and piling up of waste hydrocarbon, which has become a formidable enemy of our environments.

Being always Passionate about human values for the clean and green earth we solidly take firm steps forwards with innovative and responsible mission.

As a results of our constant endeavor , Alternafooss Pyrolysis Division emerged with Green technology named Pyrolysis technology

The cutting edge technology offers totally green and clean solution to waste hydrocarbon not only by disposal of waste hydrocarbon but conversion in to valuable Products without residue .

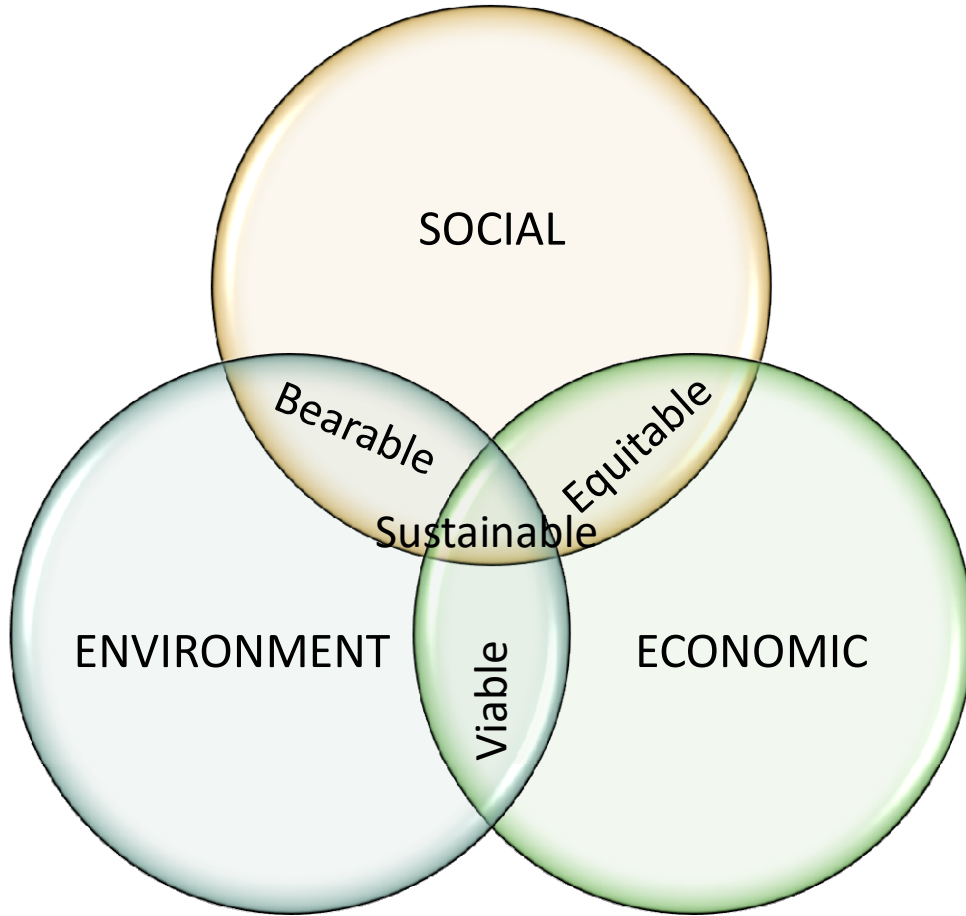
With business as part of Social Responsibility we declare a MISSION - **Go Green Live Green**

GO GREEN

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Blend of Renewable & Resurgent Energy  
will definitely led us to sustainable growth



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## MISSION GO GREEN LIVE GREEN

New Era of Resurgent Energy is the land mark after long and successful journey of renewable Energy

What is RESURGENT ENERGY?

Modernization has brought great developments and simultaneously ever-increasing colossal waste of hydrocarbon and it has become a menace .

Waste hydrocarbon can be either tyre, e-waste, plastic, rubber or municipal solid waste. Though waste hydrocarbon has become deterrent to prosperity We find it impossible stop the generation of waste hydrocarbon.

Though we fail to stop the generation of waste hydrocarbon but WE CAN definitely succeed by converting it into Wealth.

Waste generation per capita has increased and is expected to grow immeasurably with the global population and modern life styles expanding wealth and consumerism.

It is an incarnation or new life of waste hydrocarbon in to valuable Hydrocarbon in the form of Green and clean fuel with other valuable products , useful in various industries of the 21<sup>st</sup> century .

The process of rebirth of this waste hydrocarbon in to valuable hydrocarbon is called Resurgent and energy we are able to generate from this process is called Resurgent Energy .Alternafoss Energy hs declared this mission as , “ GO GREEN LIVE GREEN “

We invite all countries , state, governments , NGO's, Institutions and finally individuals to join this mission of GO GREEN LIVE GREEN, not for valuable products but also to give great satisfaction and feeling to be a part of ultimate revolution to make our mother earth in the Real sense .

GO GREEN

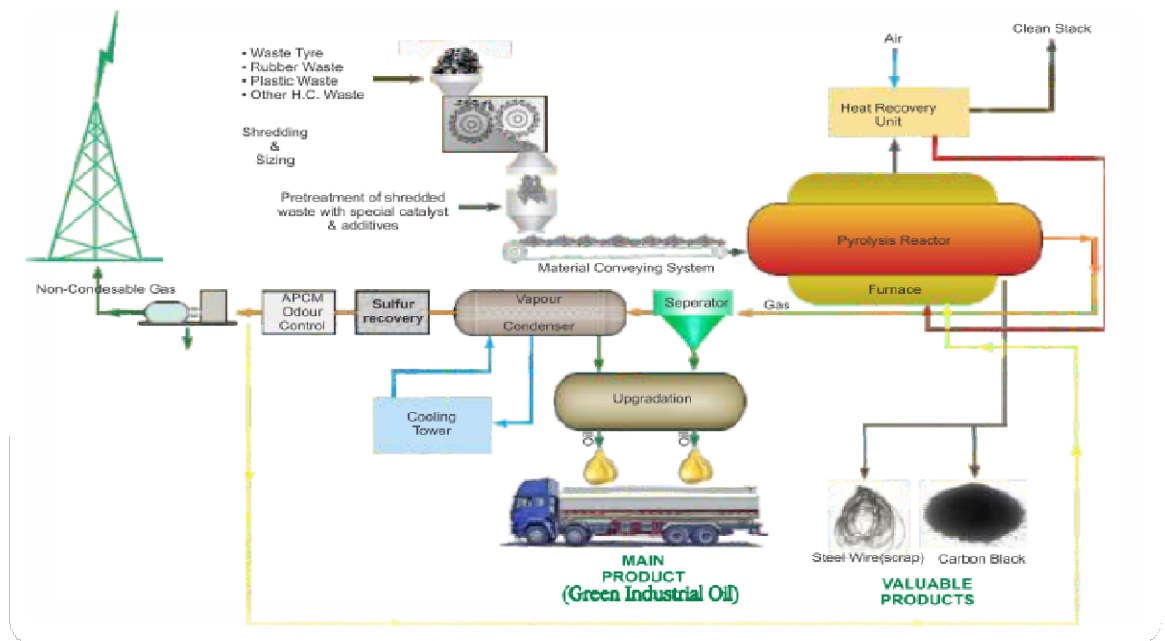
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## About Technology :

- ✓ Batch & Continuous Process
- ✓ Eco-Friendly Process
- ✓ Safety as per International Standard



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Pyrolysis of waste hydrocarbon ( WHC)is not a combustion it is 100% conversion of waste hydrocarbon into valuable hydrocarbon. Technically it is the thermal catalytic de-polymerization of waste hydrocarbon in the absence of Oxygen(O<sub>2</sub>),Causing it to breakdown into materials that they were made of Generally WHC breaks into main three products.

**1- Green Industrial Oil**

**2-Carbon Black**

**3-Steel Wires or metal wires**

**4-Non condensable High CV Gas ( May be utilize for Process Heat)**

The Pyrolysis methods for recycling of waste tyre, plastic and e-waste is an innovative technique that use special process plant to heat the waste material up to 400-600 °C depending on types of waste in air tight close reactor



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## Raw Material :

- Waste Tyre / Rubber
- Industrial Plastic Waste
- Municipal solid Plastics waste
- Household Plastic & Rubber Waste

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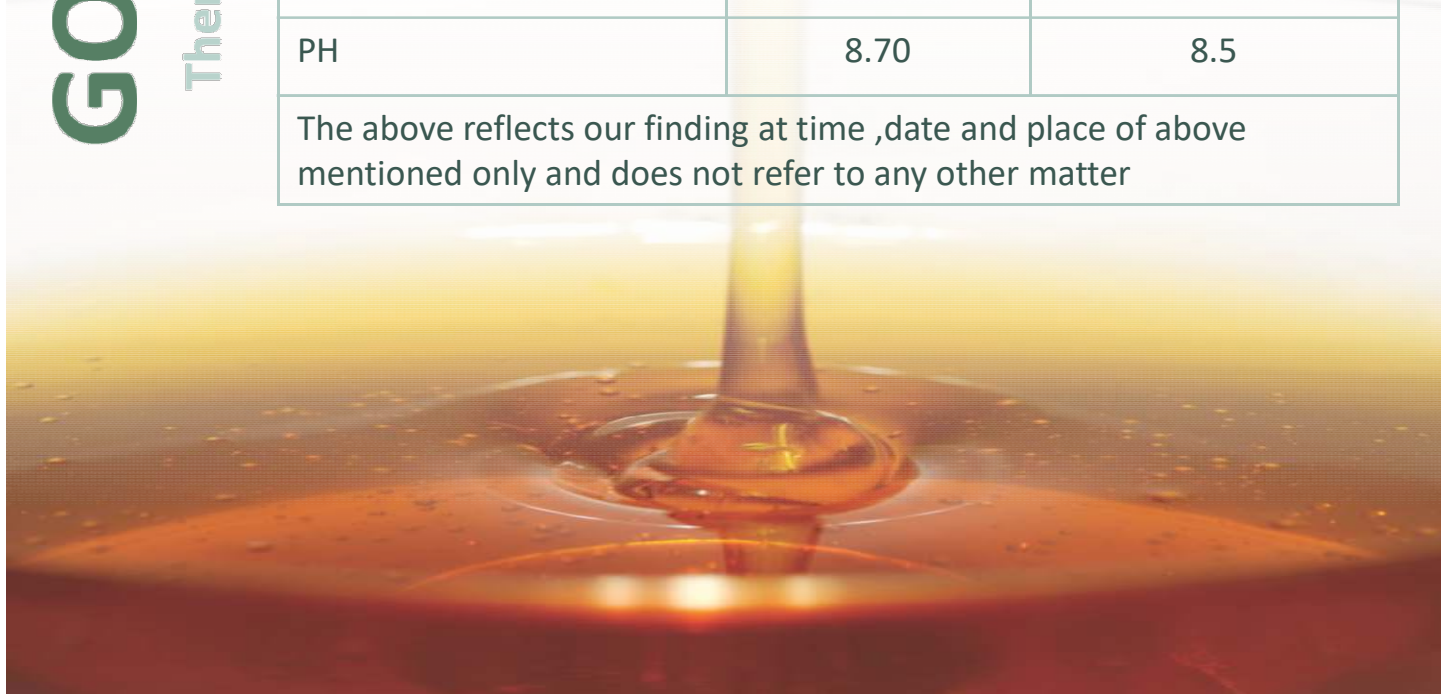
## Properties of Pyrolysis Oil :

| Properties                | Tire Pyrolysis Oil | Plastic Pyrolysis Oil |
|---------------------------|--------------------|-----------------------|
| Heating Value ( KJ/Kg)    | 43225              | 46199                 |
| Density @ 30 °C ( g/cc)   | 0.92               | 0.82                  |
| Viscosity @ 40 °C (cp)    | 2.69               | 2.49                  |
| Flash Point ( °C ) min    | 68                 | 100                   |
| Acidity ,Inorganic        | Nil                | Nil                   |
| Ash,% wt max              | 0.004              | 0.002                 |
| Sediments % wt, Max       | 0.03               | 0.01                  |
| Sulphur % total wt , Max  | 0.85               | ~                     |
| Water content, % vol, max | 0.25               | 0.12                  |
| Pour point                | Below 42 °C        | Below 42 °C           |
| PH                        | 8.70               | 8.5                   |

The above reflects our finding at time ,date and place of above mentioned only and does not refer to any other matter

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## Use of carbon Black :

Char / carbon black use in various industries as raw materials

- Rubber Industries
- Pigments Industries
- Tyre Industries
- Hose & Belt Industries
- Shoes Industries
- Activated Carbon Industries
- Chemical Industries



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| Properties                       | Unit           | Results   |
|----------------------------------|----------------|-----------|
| Iodine Absorption Number         | Mg/g           | 55        |
| Heat Loss                        | %              | 0.50      |
| PH Value ( 1% Solution)          |                | 7.50      |
| PH Value ( 5% Solution )         |                | 8.06      |
| Sulphur contents ( 145 ° )       | Min            | 10 30     |
| Elongation at break              | %              | 667 637   |
| Tensile strength                 | Mpa            | 24.1 22.9 |
| 300% Modulus                     | Mpa            | 5.63 6.23 |
| Net calorific Vale ( arb) Kal/kg | ASTM D 5865-07 | 7188      |
| Total Sulphur as S,% w/w(abd)    | ASTM D3177-02  | 3.4       |

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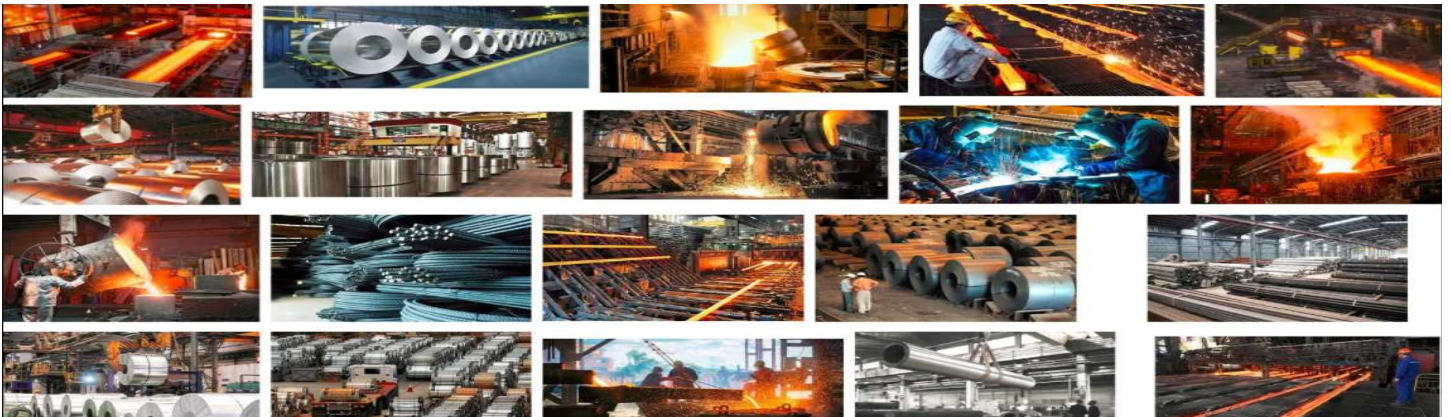


## Use of steel wire :

- Gurder
- Plates
- Channels
- Bars
- TMT Bars
- Steel Parts
- Wires

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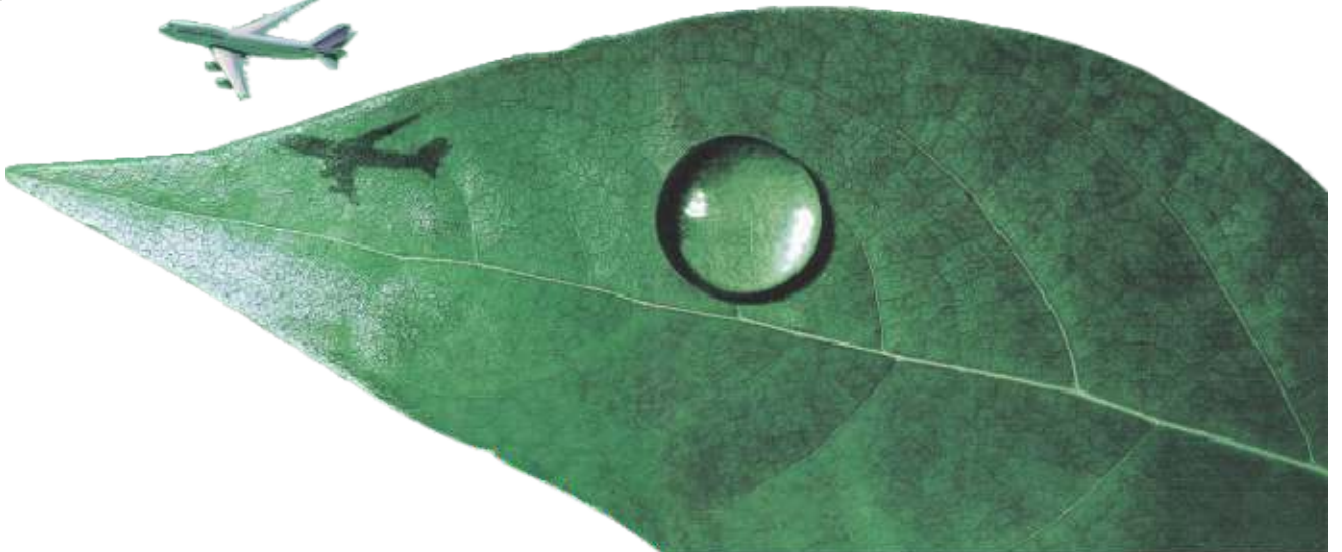
the  
**Green** Journey with **Resurgent Energy**

*Our march would not have been what it is ,without our united endeavor*



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# Key Notes

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- It Is continuous new green source of resurgent Energy from Waste
- Reduce plastic , tyre & Waste land pollution
- Eco –friendly way of recycling
- Highly commercial viable process
- End products Green oil suitable for liquid diesel oil / furnace oil
- End product green oil can be further upgrade into petrol- diesel and valuable chemicals
- Perfect and ultimate solution of waste hydrocarbon
- Save millions of dollar foreign exchange by reducing import of oil
- Zero Emission process – No harmful to environment
- Less reaction time and highly energy efficient process
- Generation of Employment chain – procurements , sizing , processing and distribution of products
- Plant is energy self sufficient and even surplus in energy in both liquid fuel and power





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