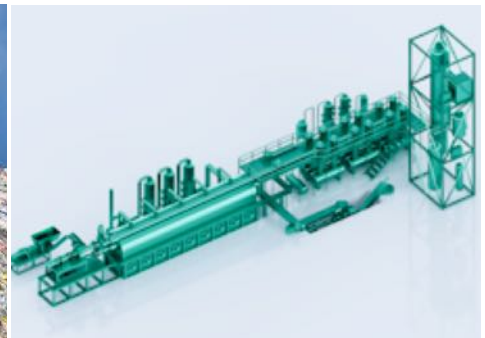


# PLASTICS TO LIQUIDS

Conversion of plastics & tyres to green fuels

**renetech**  
renewable energy technologies



## Production Line Options

### Model - EURO

- 30 tpd plastics capacity
- Output: 21 m3d Diesel@EURO 5
- Footprint: 35x10x6m
- Scalable

### Model - WORLD

- 30 tpd plastics capacity
- Output: 21m3d (85% Diesel@EURO 4 and 15% gasoline).
- Footprint: 35\*10\*6m plus 4\*3\*12m distillation tower
- Scalable

### Model - TYRE

- 30 tpd waste tyre capacity
- Added sulphur removal option
- Distillation option
- Min marine diesel compliance

## Conversion of non recyclables

**Recycling plastics** — the process of recycling becomes more and more complex as quality requirements increase and specific uses creates an almost infinite combination of plastics and additives. Materials recovery becomes economically challenging and plastics are not recycled for both technical and economical reasons. Energy recovery becomes the least bad option, especially if incineration can be avoided.

**Our solution** — by combining existing technologies with our proven processes we can offer our clients conversion of plastics to synthetic fuels at greatly improved levels. Target fuels depend on the feedstock i.e. content of plastic fractions and waste tyres.

Plastics, primarily HDPE, PP and PE, are the most common fractions for conversion to synthetic diesel at sulphur free ASTM D975 as a base quality (up to EURO5). Depending on input there is a mix of diesel and some gasoline as output.

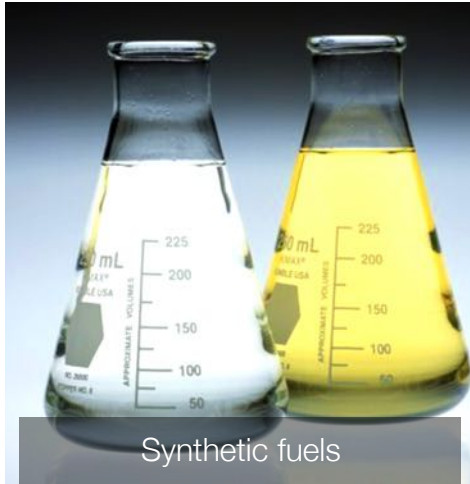
Waste tyres can be converted to marine diesel (< 500 ppm sulphur) as a base quality.



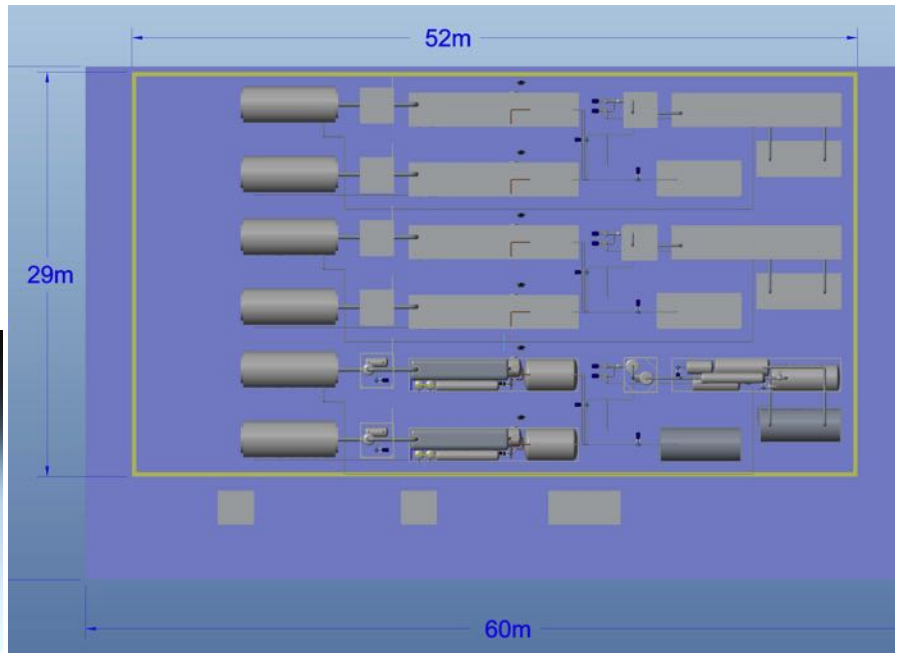
## Diesel Fuel Specification

### ASTM D 975

- ◆ Flashpoint
- ◆ Water and Sediment
- ◆ Distillation
- ◆ Kinematic Viscosity
- ◆ Ramsbottom Carbon Residue
- ◆ Ash
- ◆ Sulfur
- ◆ Copper Strip Corrosion
- ◆ Cetane Number
- ◆ Cetane Index
- ◆ Aromaticity
- ◆ Cloud Point



Synthetic fuels



Our plant solutions are scalable and a gross footprint for a two line 60 tpd (30x2 tpd) is 60 by 40m including handling,

### Economy

Our solutions are competitive with wholesale/refinery margin levels in most markets i.e. non primary oil producers.

Within reason distillations allows for tuning output of different fractions depending commercial preferences.

### Delivery

Standard, modular and scalable setups are available. They handle a broad range of feedstock and output options. Custom engineering is the second option.

Sustainable conversion of wastes and biomass to fuels, combustibles and power.



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## What is unique with our solution?

Our solutions are both **environmentally and economically viable**. Most other solutions are only producing pyrolysis oil at varying qualities.

By applying a complete process from pretreatment, pyrolysis, oil processing and distillation we can create renewable quality fuels that are competitive with their fossil counterparts.

Our edge lies in our ability to work with different mixes of feedstock and maximise the results from that in the processes.

Depending on market we can also balance the plant between labour intensive applications and high levels of automation.



*Plastics as feedstock produces sulphur free fuels.*