

THINK SAFE  
ACT SAFE  
BE SAFE

# *Cynar Plc*

*Successfully Converting*

*End-of-Life Plastics*

*to Liquid Fuels*

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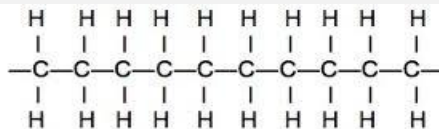
*To: Marine Litter (3rd October 2013)*



# The Technology

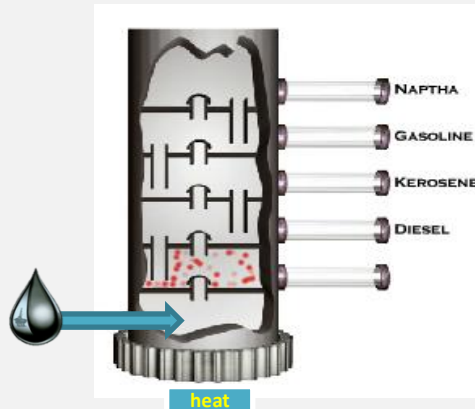
## Plastic Waste (non-bio)

- ✓ Reduce volume of plastic waste to landfill or becoming Marine litter



## Transformation to liquid fuels

- ✓ 2nd generation
- ✓ Sustainable



## Markets

- ✓ Reduce import needs
- ✓ Green activity



# *P2F Technology*

## P2F technology transforms ELP plastic waste (end-of-life plastics) into transport/energy fuel

- P2F reduces ELP going to landfill or becoming litter,
- P2F substitutes high cost fossil fuel imports,
- P2F maintains an impressive positive energy balance,
- P2F has a CO2 saving of 1402 tpa compared to fossil fuel.



# Cynar Input/Output

- Cynar Input – 6000 tpa
- Cynar Fuel Output
  - 1 ton Waste Plastic converts to 264 US gallons (1,000 liters) Usable Fuels

1 Ton ELP

Diesel 185 gallons  
Gasoline 53 gallons  
Kerosene 26.5 gallons  
Synthetic Gas 16 gallons  
Residual Char 5% -cement kilns



- Cynar Significant Fuel Cost Saving
  - Average USA pump price of gallon of diesel (ex. taxes) **\$3.94\*\***
  - Cost to produce 1 gallon of Cynar Diesel (ex. taxes) **\$1.50**



# Marine Life Challenges

- + 300 million tons of new plastic manufactured PA
- Significant % ends up in our oceans
- Plastic does not fully degrade
- Plastic harms marine life, disrupts ocean ecology and contaminates the food chain



# What is Currently Being Done

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## EU's Green Paper on Plastic Waste

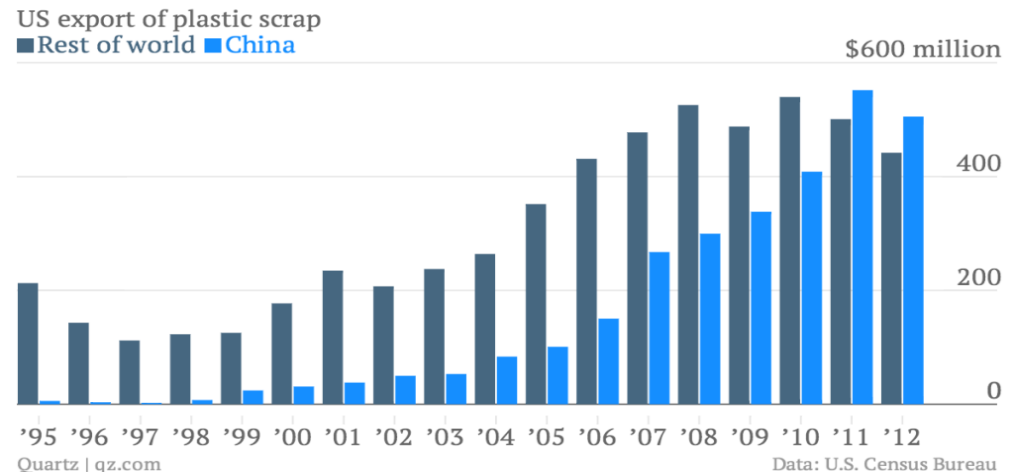
- Structured discussion about how to make plastic products more sustainable throughout their life cycle and reduce the impact of plastic waste on the environment.

## American Chemistry Council

- Advocates close cooperation with a broad range of stakeholders to create solutions for the marine environment

## China's Green Fence

- US/ EU States Banned from exporting Trash To China



# *What Can Cynar Do?*

## ***Transform ELP into a Valuable Resource***

1. Harvest plastic waste to road grade low sulphur Diesel
2. Reduce plastic waste to oceans by partnering with local Municipalities, Governments, Investors and Private Industries to drive & incentivise plastic segregation & recycling
3. Create employment through harvesting, segregating and processing ELP
4. Provide direct substitution on imported fuels
5. Improve Green credentials and demonstrate case for reduced tax on fuels produced from world's plastic waste



# Marine Commitment

***“Cynar will help to Divert and Transform ELP from our Oceans to valuable, usable fuels”***

1. Convert ELP via pyrolysis to usable fuels
2. Provide a cheaper alternative to high cost fuel import
  - \$1.50 per gallon Cynar Diesel production cost
3. Ensure a cleaner, safer solution
  - Cynar fuels are lower in sulphur, higher in cetane and lower tailpipe emissions
4. Create local employment and cleaner environment
5. Partnership with Cynar
  - Cynar will partner or work closely with a broad range of associations and other parties to mobilise these solutions





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*Thank you for your time.*

**Michael Murray**

**CEO**

**Cynar Plc**

[michaelmurray@cynarplc.com](mailto:michaelmurray@cynarplc.com)

