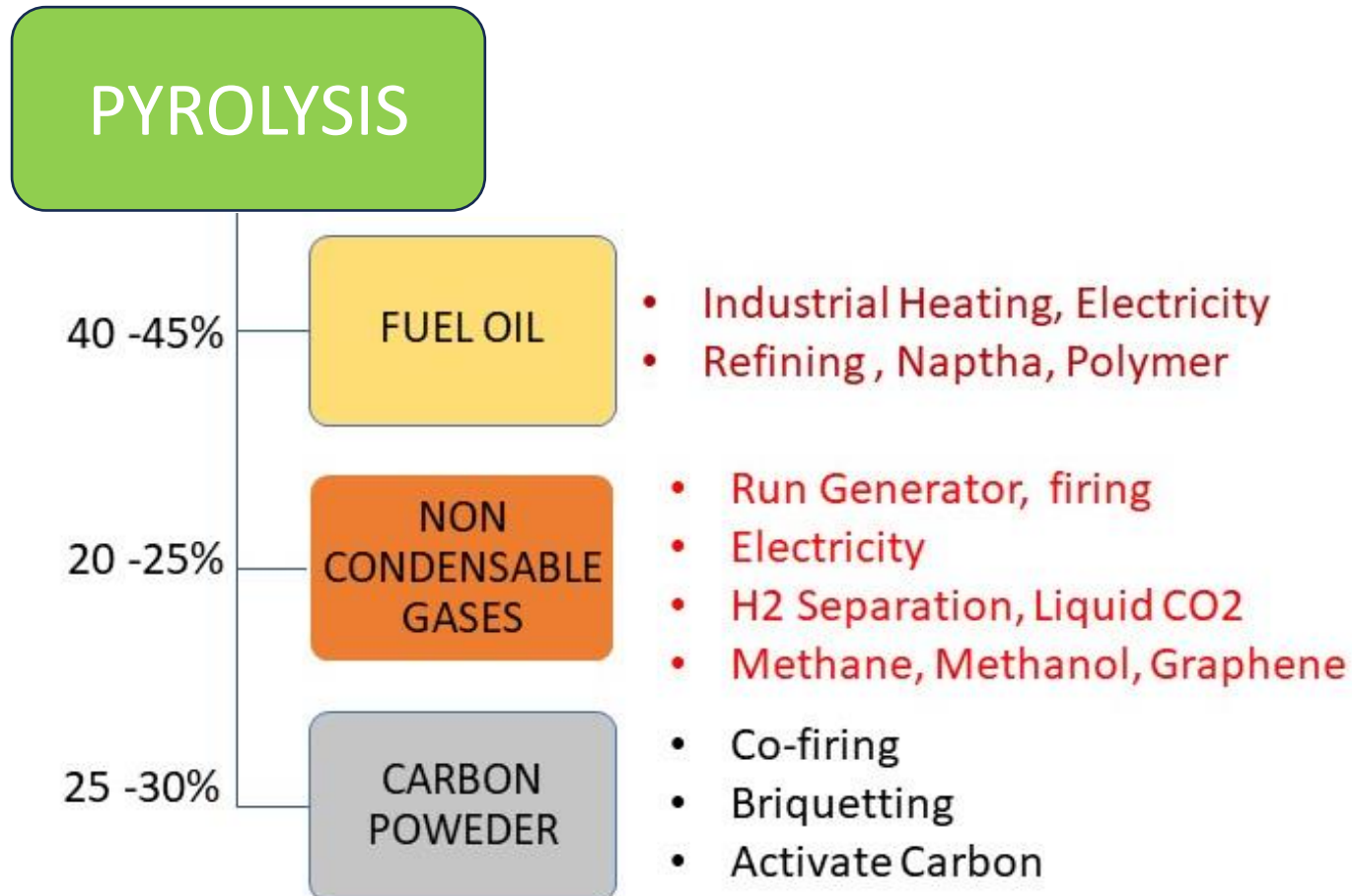


# METHANE GAS FROM PLASTIC WASTE

01

Pyrolysis

OUTPUT





## PYROLYSIS TECHNOLOGY

**About 12 tons of gas can be generated from 100 tons of plastic waste per day.**

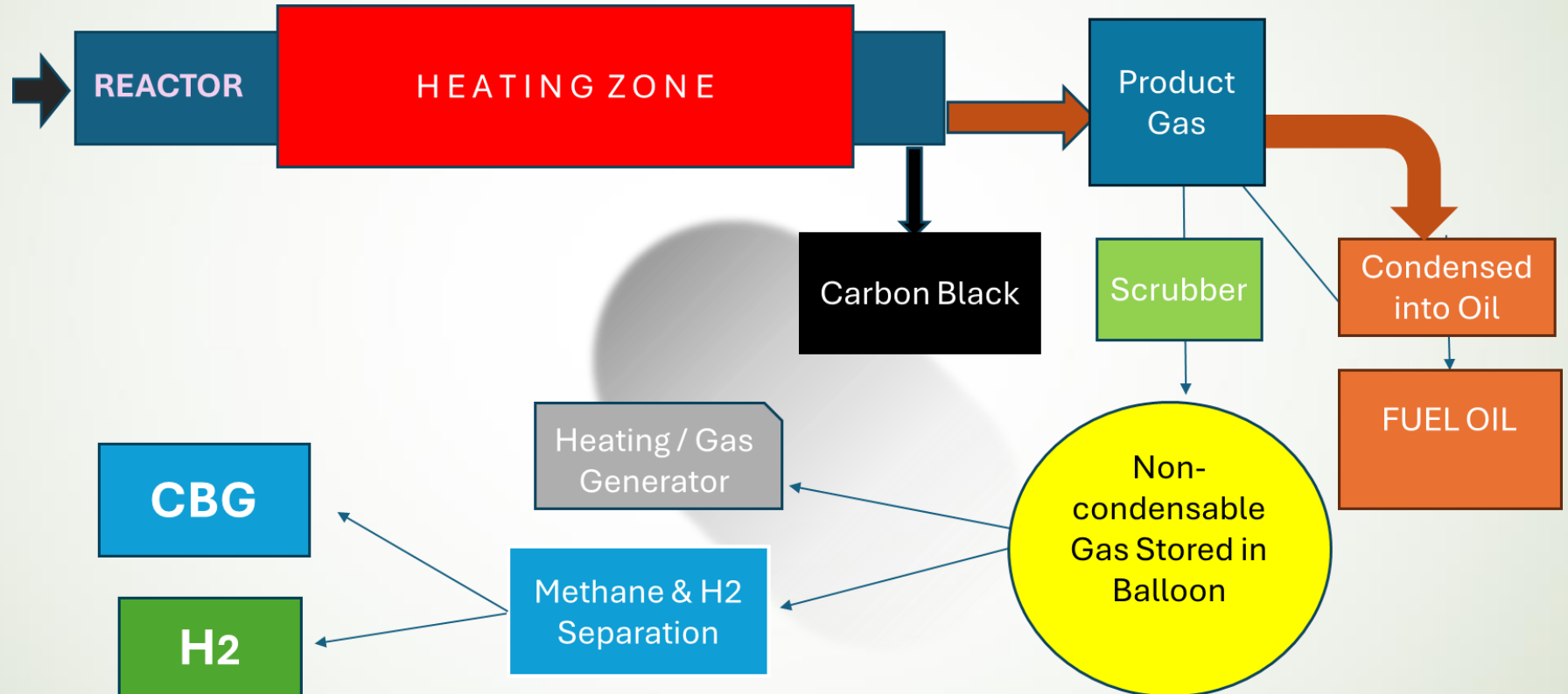


**Whereas you need 240 tons of Organic & food waste to produce 12 tons of CBG.**

# Methane Gas yield

	ORGANIC & FOOD WASTE	PLASTIC WASTE
INPUT TPD	100 TPD	100 TPD
	TPD =tons per day	
Estimated 95% + Methane Yield	5%	12%
	5 TPD	12 TPD
INVESTMENT - INR	80 Cr	40 Cr + Scrubbing + Bottling 10 Cr = 50 Cr
Capex per ton of CH4	16 Cr	4.10 Cr

# Proposed System 20 TPD



# WTE - PYROLYSIS with PLASTICS / RDF

20 or 40 TPD capacity can be set up in many major cities and tier 2 towns

**DECENTRALIZED**

## From PYROLYSIS

Fuel oil close to Naphtha	40-45 %
Methane Gas	10%
Hydrogen	4%
Black Carbon	25%

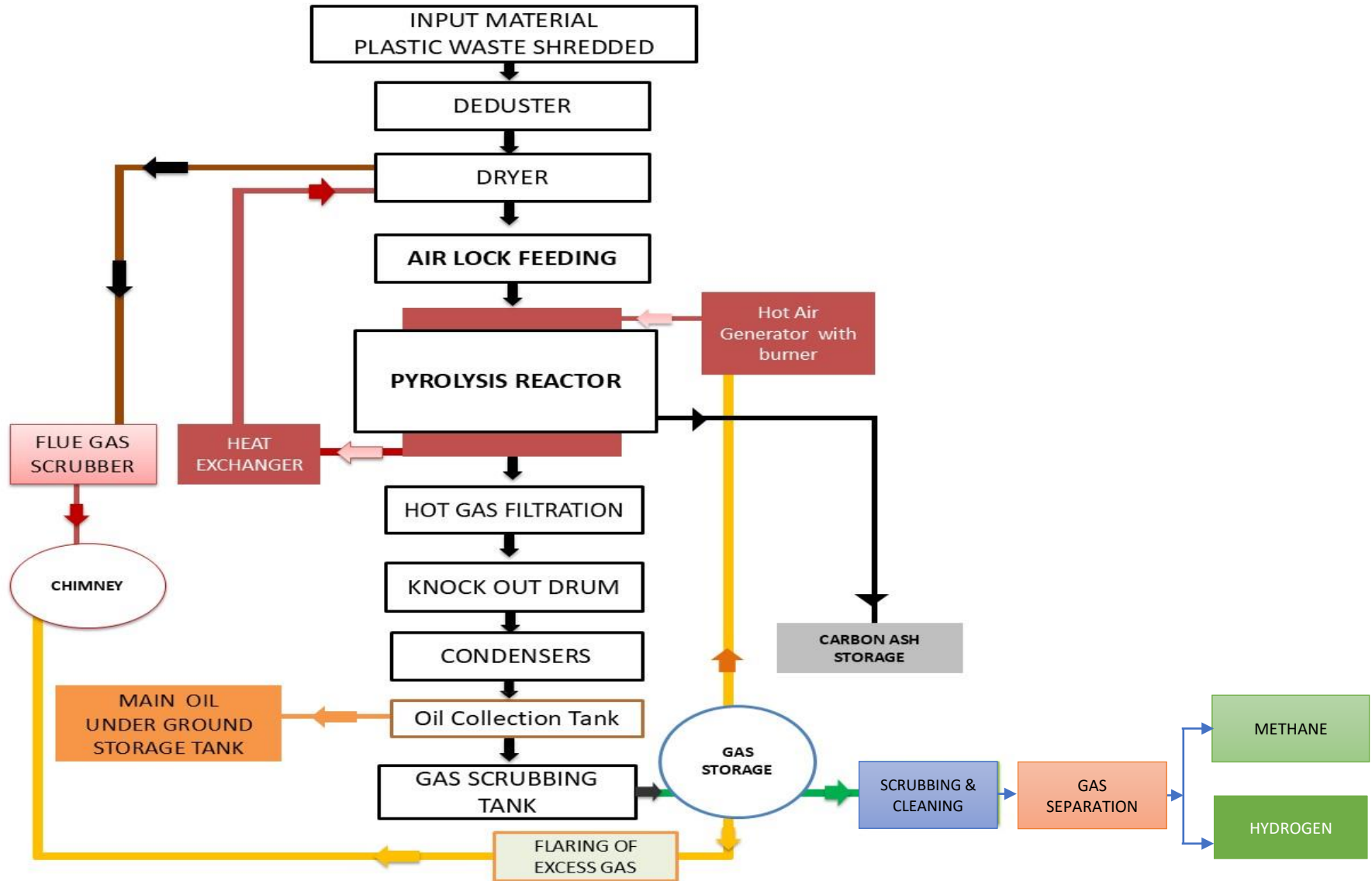


02

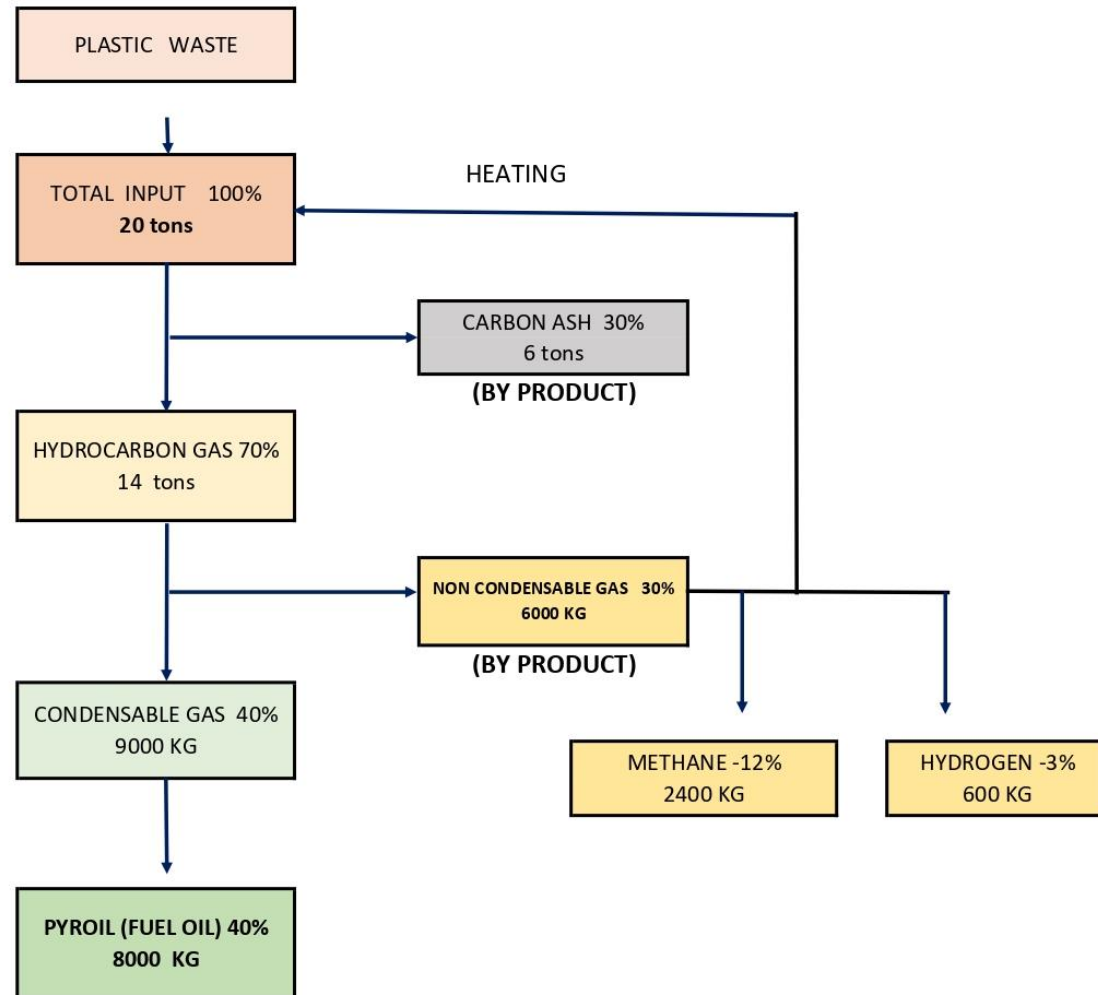
Pyrolysis  
SCHEME



## FLOW CHART – PLASTIC PYROLYSIS



**MASS BALANCE -20 TPD PLANT**




03

OPPORTUNITY

# Plastic Waste Availability in India

Every year generation ~ 5 million tons ( non-recyclables)

From the Legacy waste ~ 1300 million Tons from 3000 dumpsites

  
Pyrolysis is  
the only  
solution

# Source of Energy

150 million tons  
of Methane gas



# Source of Revenue

Rs.750,000 crores





## TYPE OF PLASTIC WASTE.. that we processed



All kind of mixed Plastics  
found in MSW



Polyurethane Foam -PUF



Carpet waste



Bio-mining waste



Adhesive Tapes



Thermocole



Multilayer Films



FRP Windmill blade



Ion exchange resin



PCB waste



Membrane



Fibre Reinforced Polymer

## ESTIMATED PROJECT COST 20 TPD

1.	Including - <ul style="list-style-type: none"> <li>• Pre-processing line – Shredder, Dryer etc</li> <li>• Pyrolysis Plant – Reactor, Downstream, Storage</li> <li>• Gas Separation System</li> <li>• Collection of Oil &amp; Gas</li> <li>• Scrubbing and Bottling of Methane &amp; Hydrogen</li> </ul>	<h3>INR 12-00 Cr</h3>
----	---	-----------------------

## OUTPUT & REVENUE GENERATION -20 TPD

	FUEL OIL -40%	METHANE- 12%	HYDROGEN -3%	Total –INR Cr
OUTPUT PER DAY	8000 KG	2400 KG	600 KG	
SALE PRICE -INR	45 / KG	57 /KG	100/KG	
REVENUE /DAY –INR	3,60,000-00	1,35,800-00	60,000-00	
REVENUE / ANNUM	12.6 Cr	4.78 Cr	2.10 Cr	<b>19.48 Cr</b>
EXPENDITURE				~ 10.50 Cr
GROSS PROFIT @100%				<b>8.98 Cr</b>
GROSS PROFIT @80%				<b>7.18 Cr</b>
<b>ROI</b>				<b>59%</b>

## ESTIMATED PROJECT COST 100 TPD

1.	Including - <ul style="list-style-type: none"> <li>• Pre-processing line – Shredder, Dryer etc</li> <li>• Pyrolysis Plant – Reactor, Downstream, Storage</li> <li>• Gas Separation System</li> <li>• Collection of Oil &amp; Gas</li> <li>• Scrubbing and Bottling of Methane &amp; Hydrogen</li> </ul>	<b>INR 50-00 Cr</b>
----	---	---------------------

## OUTPUT & REVENUE GENERATION -100 TPD

	FUEL OIL -40%	METHANE- 12%	HYDROGEN -3%	Total –INR Cr
OUTPUT PER DAY	40,000 KG	12,000 KG	3,000 KG	
SALE PRICE -INR	45 / KG	57 /KG	100/KG	
REVENUE /DAY –INR	18,00,000-00	6,84,000-00	3,00,000-00	
REVENUE / ANNUM	63.00 Cr	23.94 Cr	10.50 Cr	<b>94.44 Cr</b>
			EXPENDITURE	~ 45.00 Cr
			GROSS PROFIT @100%	<b>49.44 Cr</b>
			GROSS PROFIT @80%	<b>39.55 Cr</b>
			<b>ROI</b>	<b>79%</b>





ADDRESS

- 304 | Sahiti Sri Vidya Petals
- Patrika Nagar | **Hitech City**
- Hyderabad- 500 081 India

TELE  
CONTACT

- Ph : +91 9848045967
- Ph : +91 9948095967

WEB  
CONTACT

- [samki@samkigroup.in](mailto:samki@samkigroup.in)
- [anything@samkigroup.in](mailto:anything@samkigroup.in)
- [www.pyrogreen.in](http://www.pyrogreen.in)