



Refinery Sludge

Problem to Profit

Supercritical Fluid Gasification
Technology





RUSTEPCENTRAL

A RUSSIAN TECHNOLOGY COMPANY

20+

YEARS OF RESEARCH
& INNOVATION



For more than 20 years, Rusteplocentral has been engaged in research in the field of waste recycling to produce energy and combustible gas with **zero environmental impact** during the recycling process.



We transform complex liquid organic waste into **clean energy** and valuable outputs using advanced supercritical water gasification (SCWG) technology.



Our mission is a **cleaner tomorrow** through innovative, efficient and sustainable waste-to-energy solutions.

CENTER OF EXCELLENCE



We offer services as a center of excellence in research on the **cost-effective** use of supercritical fluids for the processing of liquid organic waste.



Advanced
R&D
Capabilities



Pilot Testing
& Process
Development



Technology
Optimization
& Scale-up



Consulting &
Technology
Partnerships



MEDIGREEN
ENERGY

INDO-GERMAN VENTURE 30+ YEARS OF EXPERIENCE

Kankyo Bert is an Indo-German venture with over three decades of experience in delivering sustainable solutions in Biogas, Bio-CNG, Waste-to-Resource, Wastewater Treatment, and Biofuels.

Backed by strong technical expertise and global exposure, we deliver innovative, integrated, and reliable solutions across the entire waste-to-energy and resource recovery value chain.

OUR EXPERTISE



BIOGAS & BIO-CNG

Clean energy from organic waste



WASTE-TO-RESOURCE

Converting waste into valuable resources



WASTEWATER TREATMENT

Advanced and efficient water treatment solutions



BIOFUELS

Renewable fuels for a sustainable future



CIRCULAR ECONOMY

Driving sustainability through resource circularity

OUR DIFFERENTIATORS

01

TECHNICAL EXPERTISE



- Over 30 years of experience in engineering, process design, and system integration
- Expertise across diverse waste streams
- Strong domain knowledge in waste-to-energy and resource recovery

02

PROJECT EXECUTION



- Meticulous planning, engineering, and execution
- Ability to coordinate multiple trades and equipment suppliers
- Ensures on-time, fast-track project delivery

03

OPERATIONAL CAPACITY



- Extensive in-field operational experience
- Cross-functional technical expertise
- Proven track record in optimizing plant performance for maximum efficiency and ROI.

OUR APPROACH: INTEGRATED SOLUTIONS

We deliver end-to-end, customized solutions—from concept to commissioning and beyond.



WASTE
Collection & Processing



ENERGY
Biogas / Bio-CNG / Power



FUELS
Bio-CNG / Biofuels



RESOURCES
Fertilizers, Biochar, CO₂ Utilization & More

From Waste to Value. For a Sustainable Future.

REFINERY SLUDGE

UNDERSTANDING THE WASTE. MANAGING THE RISK.



Refinery sludge is a semi-solid or solid waste generated from various stages of petroleum refining. It contains complex mixtures of hydrocarbons, heavy metals, water, salts, and solid particulates.



1. CHARACTERISTICS



Dark color, sticky to semi-solid texture



Strong hydrocarbon odor



High moisture content (often 30–80%)



Hazardous due to Toxicity & Contaminants



Contains fine solids and colloidal particles



Variable composition depending on source

SOURCES OF REFINERY SLUDGE



Crude oil desalting (desalter sludge)



API separator and tank bottom sludge



Catalytic cracking unit (spent catalyst fines)



Hydrotreating unit sludge



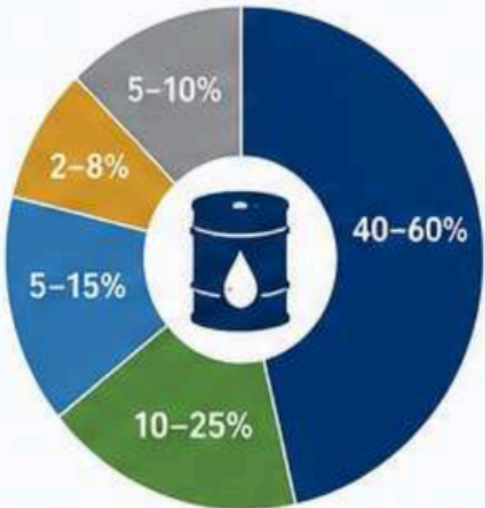
Wastewater treatment unit (WWT) sludge



Cooling tower & utility sludge



2. TYPICAL COMPOSITION



- Water & Moisture (40–60%)**
Free water, emulsified water
- Hydrocarbons (10–25%)**
Oil, grease, PAHs, asphaltenes
- Inorganic Solids (5–15%)**
Sand, silt, scale, metal oxides
- Metals (2–8%)**
Ni, V, Fe, Cr, Pb, Zn, etc.
- Salts (5–10%)**
Chlorides, sulfides, sulfates

TYPICAL CONTAMINANTS

Ni

Nickel

V

Vanadium

Fe

Iron

Cr

Chromium

Pb

Lead

Zn

Zinc

NaCl

Chlorides

Polycyclic
Aromatic
Hydrocarbons

3. KEY PROPERTIES



High organic content

Contains oils, grease and heavy hydrocarbons.



High contaminant load

May contain heavy metals, PAHs, BTEX, phenols and other toxic compounds.



pH range: 5 – 9

Generally neutral to slightly alkaline.



Calorific value

Typically 15–30 MJ/kg (varies with oil content).



Low biodegradability

Complex hydrocarbons resist natural degradation.

5. MANAGEMENT & TREATMENT OPTIONS



Oil Recovery & Separation



Stabilization / Solidification



Thermal Treatment



Bioremediation



Co-processing in Cement Kilns



Proper management can reduce environmental impact, recover valuable resources and ensure regulatory compliance.

4. DISPOSAL ISSUES



Environmental Risk

Can contaminate soil, groundwater and surface water due to toxic organics and heavy metals.



Regulatory Compliance

Classified as hazardous waste in many jurisdictions; strict regulations for handling and disposal.



High Disposal Cost

Requires specialized treatment or disposal; landfilling is expensive and often restricted.



Limited Landfill Options

Many landfills do not accept refinery sludge due to leachate and contamination risk.



Incineration Challenges

High moisture & salt content lead to high fuel consumption, corrosion and air emission concerns.



Resource Loss

Contains recoverable oil and metals that are lost if not managed properly.

IMPACT OF IMPROPER DISPOSAL



WATER POLLUTION

Leachate can contaminate groundwater and surface water bodies.



SOIL CONTAMINATION

Affects soil health and reduces land usability for agriculture.



HUMAN HEALTH RISK

Exposure to toxic compounds can cause serious health problems.



AIR POLLUTION

Improper burning can release harmful gases and fine particulate matter.



LEGAL & REPUTATIONAL RISK

Non-compliance can lead to penalties, shutdowns and reputational damage.



KEY TAKEAWAY

Refinery sludge is a complex waste that requires careful characterization and responsible management. Sustainable solutions protect the environment, ensure compliance and recover value.





Rusteplocentral
Russian Technology

Medigreen in collaboration with Kankyo Bert GMBH, Germany and RTC Russia



SUPERCritical GASIFICATION

A SINGLE POINT SOLUTION FOR COMPLEX WASTE STREAMS

Proven Russian Technology

CONVERTS COMPLEX WASTE
INTO CLEAN ENERGY

- WORKS IN SUPERCRITICAL WATER CONDITIONS**
>374°C & >221 bar
- HANDLES WET & HAZARDOUS WASTE**
No drying required
- HIGH CONVERSION EFFICIENCY**
Maximizes energy recovery
- SAFE, RELIABLE & FULLY AUTOMATED**
Engineered for continuous operation

FEEDSTOCK



OUTPUT



KEY ADVANTAGES

- SINGLE REACTOR SYSTEM**
Compact & Efficient
- ZERO LIQUID DISCHARGE**
Environmentally Sustainable
- LOW EMISSIONS**
Cleaner Tomorrow
- FLEXIBLE FEEDSTOCK**
Wide Range of Waste
- HIGH ROI**
Fast Payback & Low OPEX

IDEAL FOR A WIDE RANGE OF WASTE STREAMS



INDUSTRIAL & HAZARDOUS WASTE
Safe & efficient disposal



MUNICIPAL WASTE (WET FRACTION)
Convert to valuable energy



REFINERY & PETROCHEMICAL WASTE
Turn waste into resource



BIOMASS & ORGANIC WASTE
Sustainable energy solution



SUSTAINABLE SOLUTION
Supports circular economy and net zero goals



COMPACT FOOTPRINT
Less space, easy to install and operate



ECONOMICALLY VIABLE
Low operating cost, high efficiency



RELIABLE & PROVEN
Backed by decades of Russian engineering excellence

• TRANSFORMING WASTE INTO VALUE – EFFICIENTLY, SUSTAINABLY, PROFITABLY •



SUPERCRITICAL FLUID GASIFICATION (SCFG)

Transforming Wet Waste into Clean Energy and Water – No Drying, No Emissions

1. WHAT IS SCFG?

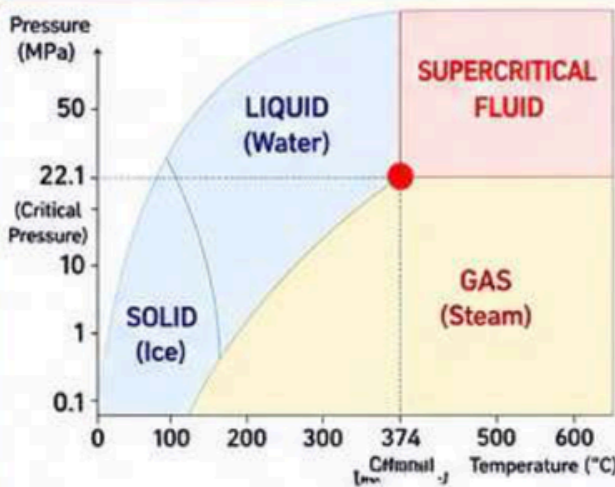
SCFG is an advanced thermochemical process that uses water in its supercritical state as a reaction medium to convert wet organic waste into clean synthesis gas, water, and inert minerals.

- No drying required – handles high moisture waste directly
- Supercritical fluid acts as both solvent and catalyst
- Ultra-fast reactions (seconds) lead to high conversion efficiency

2. SUPERCRITICAL FLUID

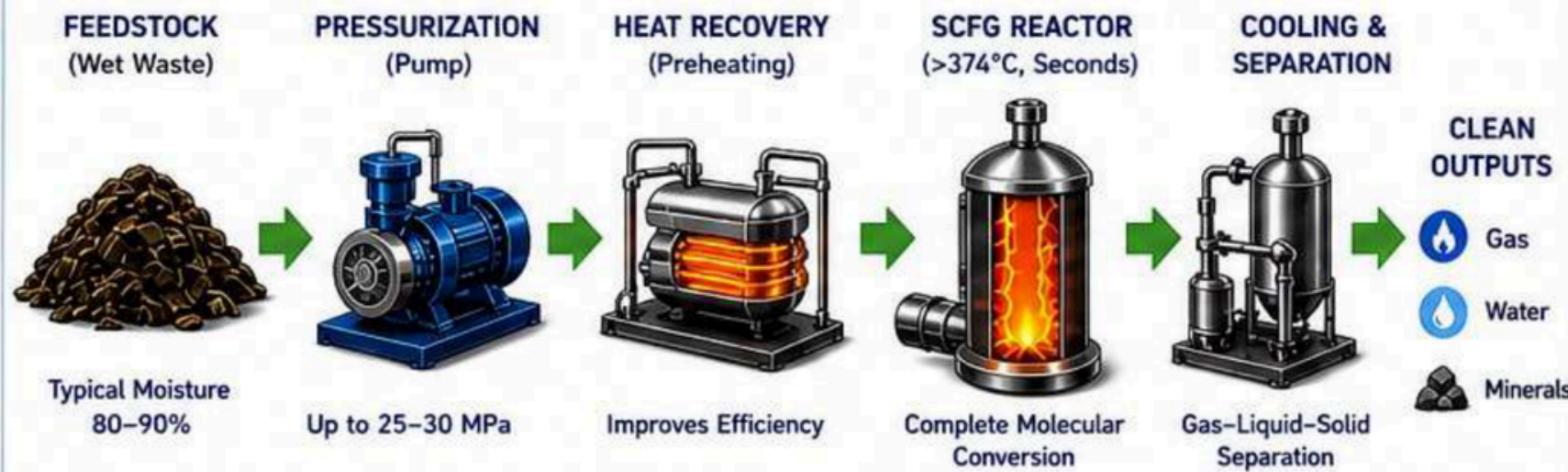
Water becomes supercritical above its critical point where liquid and gas properties merge.

WATER PHASE DIAGRAM



- ✓ Critical Temperature: 374 °C
- ✓ Critical Pressure: 22.1 MPa
- ✓ SCFG operates in the supercritical region (>374 °C and >22.1 MPa)

3. THE SCFG PROCESS – HOW IT WORKS



In the reactor, supercritical fluid penetrates the waste, breaks down complex molecules (hydrolysis), reforming and gasification reactions occur, producing a clean synthesis gas and separating by-products.

4. TYPICAL OUTPUT (PER 1,000 kg WET WASTE)

ENERGY GAS 130–150 kg

- 60% CH₄ • 25% H₂ • 15% C₂–C₃
- High Calorific Value: 40–44 MJ/m³

CLEAN WATER 840–860 kg

- ~95% Recovery
- Mineral-rich; usable as process water or after treatment (RO+UV)

MINERALS (INERT) 10–20 kg

- Inert solids / ash
- Safe for land application (soil additive)

100% MASS CONSERVATION

5. TYPICAL OPERATING CONDITIONS

- Temperature** 375 – 450 °C
- Pressure** 22 – 30 MPa
- Residence Time** 1 – 30 seconds
- State** Supercritical (>374 °C, >22.1 MPa)

6. KEY REACTIONS IN SCFG

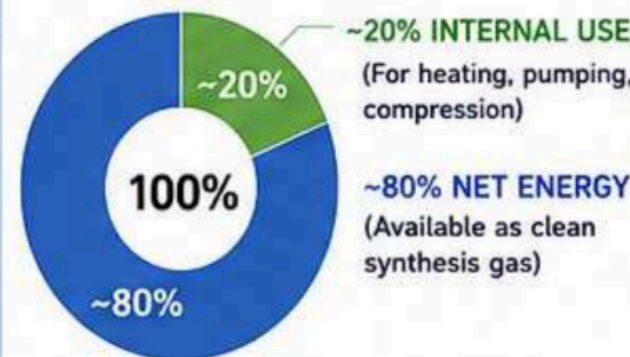
Hydrolysis:
 $(C_6H_{10}O_5)_n + nH_2O \rightarrow nC_6H_{12}O_6$

Reforming:
 $C_6H_{12}O_6 + 6H_2O \rightarrow 6CO + 12H_2$

Methanation:
 $CO + 3H_2 \rightarrow CH_4 + H_2O$

Rapid, complete conversion of organics with no tar, no char, and minimal by-products.

7. ENERGY USE



Auto-thermal process – No external fuel required

8. OUTPUT APPLICATIONS

- ENERGY GAS**
 - Power generation
 - Industrial boilers
 - Hydrogen production
- CLEAN WATER**
 - Fertilizer / irrigation
 - Industrial reuse
 - Potable after RO + UV
- MINERALS**
 - Soil amendment
 - Construction material
 - Safe disposal

9. KEY ADVANTAGES

- Handles High Moisture Waste (Up to 90%)
- No Drying Required – Saves Energy & Cost
- Ultra-Fast Reactions (Seconds)
- High Conversion Efficiency (>95%)
- No Dioxins, No NO_x, No SO_x, No Particulates
- Compact Footprint & Modular Design
- Low Operating Cost & High Reliability

10. ENVIRONMENTAL IMPACT

- Zero Stack Emissions
- Destroys PFAS, Pharmaceuticals, Toxins
- Reduces Landfill Methane & Odors
- Converts Waste into Valuable Resources
- Supports Circular Economy & Net Zero Goals

11. AT A GLANCE

- ✓ No combustion
- ✓ No oxygen required
- ✓ No gas cleanup needed
- ✓ Safe, reliable, and proven
- ✓ Scalable – Modular & Mobile
- ✓ Ideal for municipalities & industry



SUPERCRITICAL FLUID + HIGH PRESSURE + HIGH TEMPERATURE + SHORT TIME = CLEAN ENERGY, CLEAN WATER, ZERO EMISSIONS



THERMOBARIC DESTRUCTION (TBD)

A UNIVERSAL WASTE PROCESSING TECHNOLOGY

TBD (Thermobaric Destruction) uses supercritical water under extreme temperature and pressure to decompose complex waste into simple, useful compounds—without forming toxic by-products. A fast, efficient and sustainable solution for a cleaner future.

TEMPERATURE
> 374 °C

PRESSURE
> 22 MPa
(>218 atm)

REACTION TIME
Seconds to
Minutes

DESTRUCTION
EFFICIENCY
~99.9%



WHAT IS TBD?

Thermobaric Destruction combines advanced mechanochemical pre-treatment with supercritical water technology to achieve near-complete destruction of organic and inorganic waste.

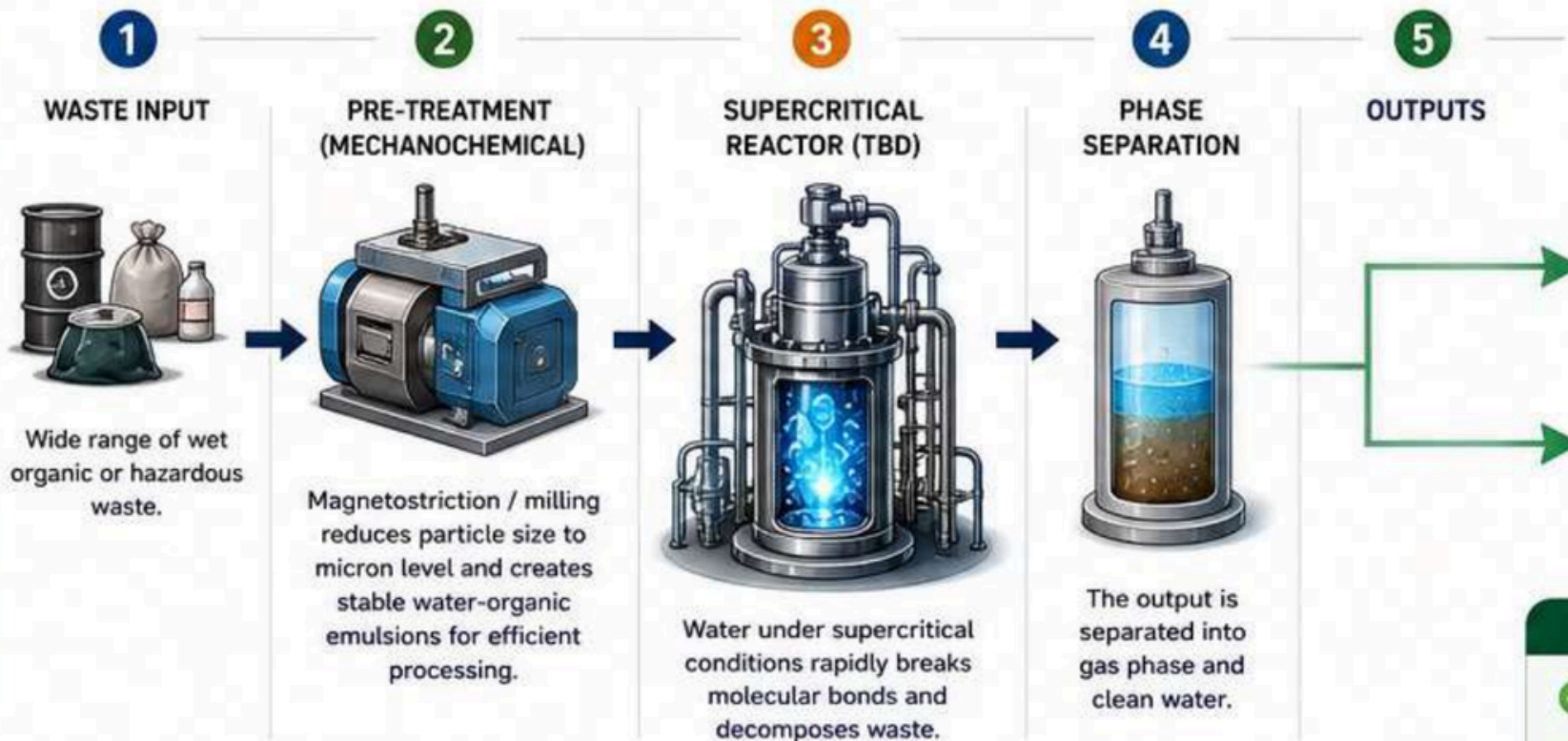
- ✓ Decomposes complex molecules into simple gases and water
- ✓ No dioxins, furans or toxic emissions
- ✓ Handles high-moisture waste (≥80%)
- ✓ Fast, efficient and energy-smart

WASTE IT CAN PROCESS

- Oil sludge & refinery waste
- Industrial & municipal wastewater
- Plastics (e.g., polystyrene, PVC, others)
- Chemical & hazardous waste
- Medical & pharmaceutical waste
- Biomass, food waste & manure
- Landfill leachate & contaminated water

SUPERCritical WATER: NATURE'S POWERFUL SOLVENT AND OXIDIZER

THE TBD PROCESS FLOW



SUPERCritical WATER PROPERTIES



Acts as both liquid and gas



High solubility & diffusivity



Breaks complex molecular bonds



Very fast reaction rate

OUTPUT PRODUCTS



GAS MIXTURE (FUEL GAS)

- Methane, Hydrogen (H₂ up to ~40%), CO, CO₂, light hydrocarbons
- Can be used for heat & power generation or as clean fuel



CLEAN PROCESS WATER

- Low COD, BOD, TSS, heavy metals
- Meets discharge/ reuse standards (as per lab results on page 4)



RECOVERABLE ENERGY

- Heat recovery from the system
- Energy self-sufficient operation possible

KEY ADVANTAGES

- ✓ Ultra-high destruction efficiency (~99.9%)
- ✓ No toxic by-products or emissions
- ✓ Works with wet waste (no drying required)
- ✓ Fast reaction time (seconds–minutes)
- ✓ Compact, modular & scalable
- ✓ Converts waste into energy & clean water

ENVIRONMENTAL IMPACT



Eliminates hazardous compounds and persistent pollutants



Reduces landfill burden and soil contamination



Protects water bodies by producing clean, reusable water



Lower carbon footprint compared to incineration

ECONOMIC BENEFITS



Low energy cost (~2 rubles/kWh equivalent)



Energy self-sufficient with gas & heat recovery



Reusable water reduces fresh water consumption



Reduces waste disposal costs and creates value

WHY TBD IS THE FUTURE



Universal – treats diverse waste streams



Sustainable – minimal emissions, maximum recovery



Safe – no dioxins, no secondary pollution



Scalable – modular plants for distributed deployment

FROM COMPLEX WASTE TO CLEAN ENERGY, GAS, AND REUSABLE WATER — IN MINUTES.



WASTE



TBD TECHNOLOGY



CLEAN OUTPUTS



SUSTAINABLE FUTURE

TBD-DELTA: PFAS TO GAS

TRANSFORMING HAZARDOUS WASTE INTO HIGH-VALUE ENERGY

TBD-Delta uses supercritical water technology to safely and efficiently destroy PFAS and other hazardous wastes—producing clean hydrogen and high-caloric fuel gas while generating reusable water. A modular, mobile and future-ready solution for a cleaner, more secure energy future.


>374°C
TEMPERATURE


>22 MPa
PRESSURE
(>218 atm)


SECONDS TO MINUTES
REACTION TIME


~99.9%
DESTRUCTION EFFICIENCY



**MODULAR.
MOBILE.
PROFITABLE.**



THE "TRIPLE CRISIS" OF 2026



SKYROCKETING LANDFILL FEES

In the Benelux region, disposing of 1 ton of industrial sludge now costs up to €160.



CARBON PENALTIES

Traditional incinerators are heavily taxed for CO₂ emissions under the new EU ETS regulations.



HYDROGEN HUNGER

European industry is desperate for affordable, locally produced "Green" Hydrogen to meet 2030 climate goals.

THE TBD SOLUTION – P&P MODULAR SYNTHESIS



FORM FACTOR

Twin 20ft ISO-Container "Plug & Play" system.



PROCESS

Supercritical Molecular Dissociation (No combustion, no oxygen, no dioxins).



IRON-FREE SUPERALLOY MATRIX

Immune to hydrogen embrittlement.



50-YEAR GUARANTEE

A lifecycle 10x longer than market standards.



DEFENSE-GRADE HERITAGE

Precision engineering for extreme thermal environments.



THE TBD PROCESS FLOW


PFAS & HAZARDOUS WASTE INPUT
Sludge, wastewater, industrial & chemical waste, PFAS, oils, etc.


PRE-TREATMENT
Size reduction & mechanochemical treatment.



SUPERCritical REACTOR (TBD)
>374°C, >22 MPa
Rapid molecular dissociation.



GAS SEPARATION & CONDITIONING
Purification & conditioning of gas streams.



ENERGY OUTPUTS & CLEAN WATER
Valuable gas products and reusable water.

SAFETY & ENVIRONMENTAL COMPLIANCE



ZERO-STACK DESIGN
No chimney, no smoke, no odors, no emissions. Perfect for "Urban Industry" zones.



SAFETY FIRST
Modular separation for clean operational zoning and enhanced operator safety.



REGULATORY SPEED
Classified as "Equipment" rather than "Permanent Infrastructure," accelerating the permitting process by years, reducing deployment time to days.

ZERO EMISSIONS. MAXIMUM VALUE.

THE ENERGY FORMULA



INTERNAL FEED

The reactor is energy-autonomous, consuming only up to 1/5th of its output to maintain the reaction.



GREEN HYDROGEN (H₂)

High-purity output ready for the EU Hydrogen Backbone or industrial fuel cells.



HIGH-CALORIC 44 MJ/m³ GAS MIX (C₁ - C₃)

A rich Meth-Eth-Prop blend for high-efficiency local power generation.



 CLEAN HYDROGEN •  HIGH ENERGY GAS •  REUSABLE WATER

KEY ADVANTAGES



DESTROYS PFAS & HAZARDOUS WASTE
Safe, complete destruction without toxic by-products.



PRODUCES CLEAN HYDROGEN & FUEL GAS
Creates high-value energy products.



NO SECONDARY POLLUTION
Zero-stack, zero toxic emissions.



HIGH ROI FAST PAYBACK
Strong financial returns with low operating cost.



DISTRIBUTED & SCALABLE
Modular plants for any scale, anywhere.



MOBILE & FLEXIBLE
Relocatable in 48 hours to follow opportunity and demand.

TURNING THE WORLD'S TOUGHEST WASTE PROBLEM INTO **CLEAN ENERGY**, PROFIT, AND A SUSTAINABLE FUTURE.



WASTE IN →



TBD-DELTA TECHNOLOGY →



CLEAN HYDROGEN + ENERGY →



REUSABLE WATER →



A SUSTAINABLE FUTURE

TBD-REACTOR

THE FUTURE OF DISTRIBUTED WASTE-TO-HYDROGEN

High ROI Potential Long Lifecycle Zero Emissions

1 THE "TRIPLE CRISIS" OF 2026



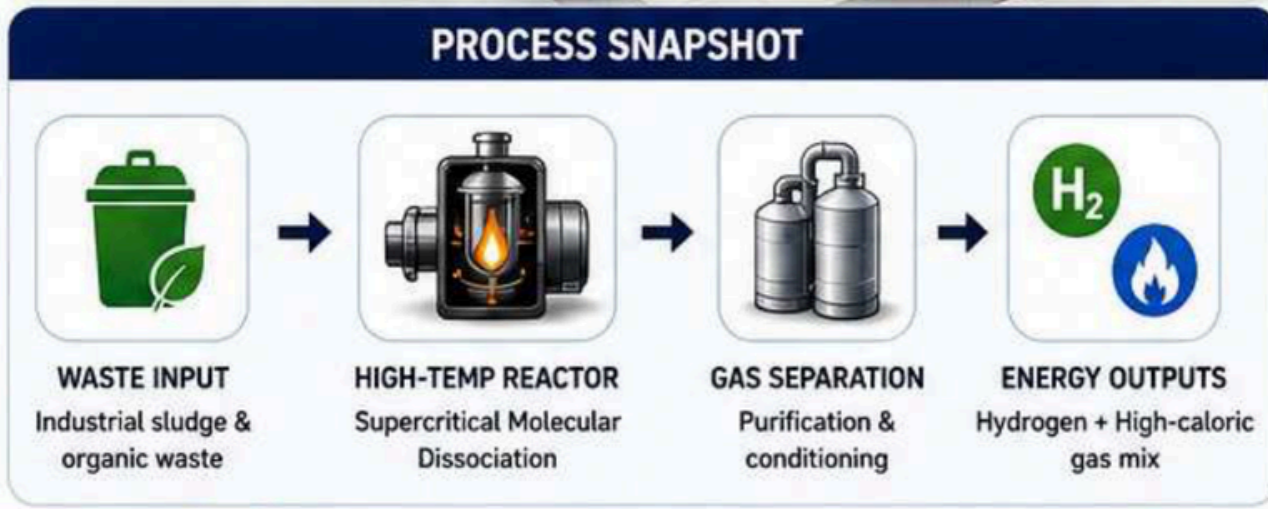
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THE SOLUTION: P&P MODULAR SYNTHESIS



FORM FACTOR
Twin 20ft ISO-Container "Plug & Play" system.



PROCESS
Supercritical Molecular Dissociation

- ✓ No combustion
- ✓ No oxygen
- ✓ No dioxins



THE "VANGUARD" SUPERALLOY

- ✓ **Iron-Free Matrix:** Immune to hydrogen embrittlement.
- ✓ **50-Year Guarantee:** A lifecycle 10x longer than market standards.
- ✓ **Defense-Grade Heritage:** Precision engineering for extreme thermal environments.

3 THE "20/20/60" ENERGY FORMULA

We turn a liability (waste) into a strategic asset:

20%



INTERNAL FEED
The reactor is energy-autonomous, consuming only a fraction of its output to maintain the reaction.

20%



GREEN HYDROGEN (H₂)
High-purity output ready for the EU Hydrogen Backbone or industrial fuel cells.

60%



HIGH-CALORIC GAS MIX (C₁-C₃)
A rich Meth-Eth-Prop blend for high-efficiency local power generation.

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Modular separation (Red/Blue zones) for clean operational zoning.



REGULATORY SPEED
Classified as "Equipment" rather than "Permanent Infrastructure", accelerating the permitting process by years.



ZERO EMISSIONS

KEY ADVANTAGES



DISTRIBUTED & SCALABLE
Deploy where waste is generated.



CONVERTS WASTE TO VALUE
Transforms a liability into clean energy & profit.



HIGH ROI FAST PAYBACK
Strong financial returns with low risk.



MOBILE & FLEXIBLE
Relocate in 48 hours to follow markets.



FUTURE-READY HYDROGEN
Enables Europe's clean energy transition.



SUPERCRITICAL FLUID REACTOR

Technology and basic waste for recycling



BASIC WASTE FOR RECYCLING

Environmental pollution products (landfill filtrate).

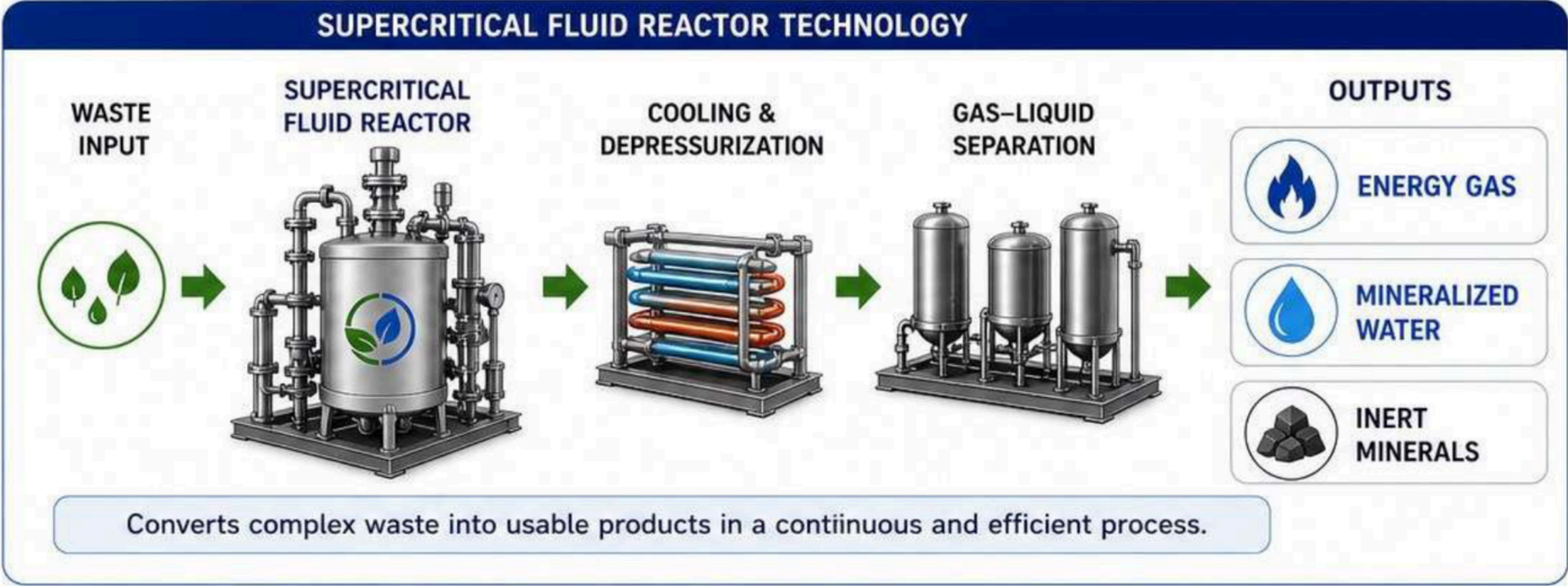
Oil sludge.

Waste from food and chemical industry enterprises.

Bird droppings and manure.

Excess activated sludge from urban wastewater treatment plants.

Used lubricants and coolants.



OUR ADVANTAGES

1. NO HARMFUL EMISSIONS
No harmful emissions.

2. CONTINUOUS CYCLE
No harmful emissions. The ability to work in a "continuous cycle" (without waste storage, less need for human resources).

3. HIGH EFFICIENCY
High efficiency: approximately three times more produced gas compared to traditional biogasifiers, and the best quality of the produced gas mixture.

4. COMPACT FOOTPRINT
The occupied area is 5 times less than that of traditional biogasifiers.

5. LOWER COST
The cost of construction and installation works is 30% lower than the cost of such works for traditional biological treatment facilities.

6. ULTRA-FAST PROCESSING
The processing speed is 1200 times higher than that of traditional systems; production and installation are twice faster compared to traditional biogasifiers.

WASTE TO CLEAN ENERGY AND RESOURCE RECOVERY

Zero Emissions

High Efficiency

Compact Footprint

Faster Deployment



SUPERCritical FLUID GASIFICATION

INNOVATIVE TECHNOLOGY TO PRODUCE GREEN GAS

Green gas is an essential component in the energy transition. In addition to sustainable electricity (from wind and solar energy) and the use of residual heating and geothermal energy, there is an increasing demand for renewable gas. Thanks to the speed at which large volumes of green gas can be produced using supercritical fluid gasification, this innovative technology can play a key role in meeting this demand.



This technology can use an exceptionally broad range of both wet and dry waste from the food industry and agriculture as feedstock. So not only does the system produce sustainable energy, it also contributes to a **circular economy** and the efficient processing of problematic waste streams.



GREEN GAS FROM ORGANIC WASTE STREAMS

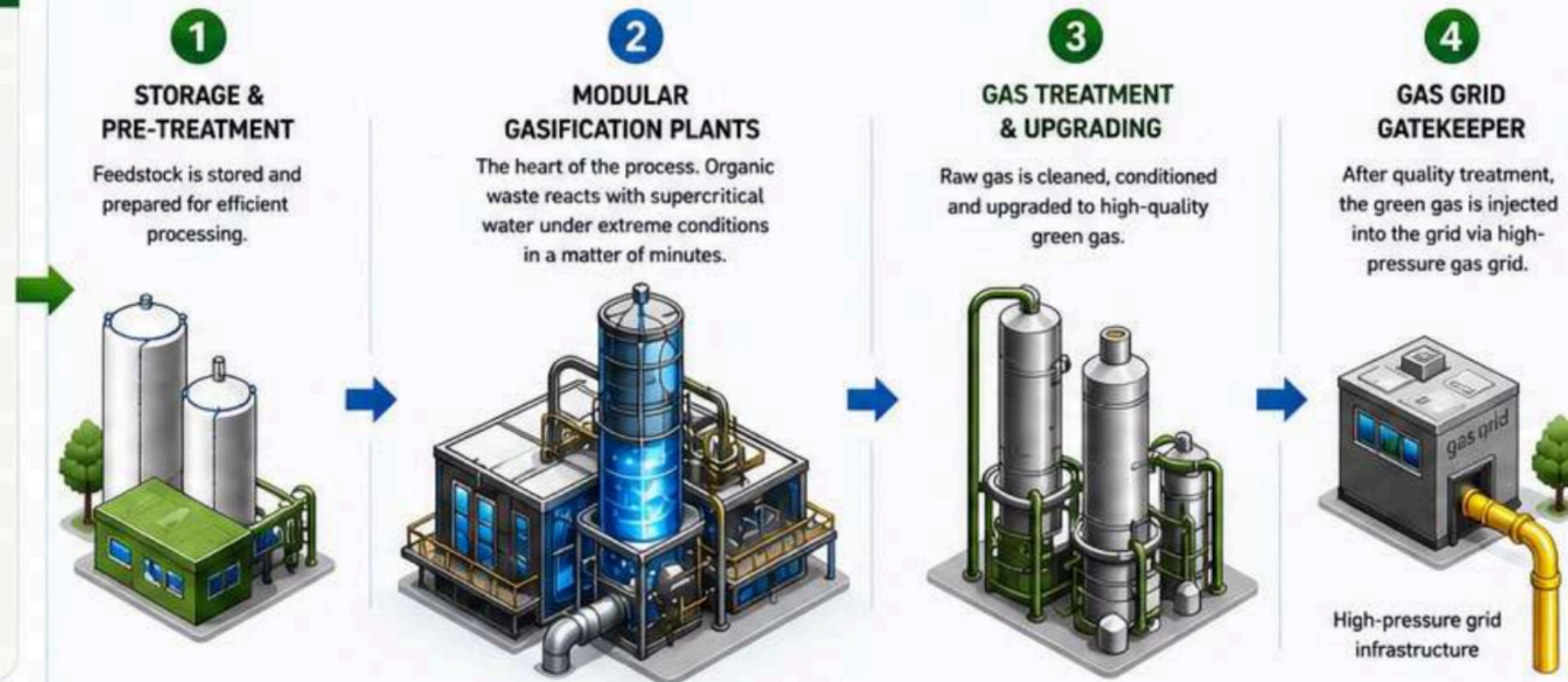
- Sewage sludge
- Food waste
- Mown roadside grass / hay
- Industrial waste streams
- Plastics
- ... and much more

USES OF GREEN GAS

Green gas can be used in the end users' existing infrastructures and assets, meaning it can play a role in heating buildings and making industrial processes and transport and mobility more sustainable.



THE SUPERCRITICAL FLUID GASIFICATION PROCESS



SUPERCritical CONDITIONS



HIGH TEMPERATURE
> 374 °C



HIGH PRESSURE
> 221 bar



FAST REACTION TIME
Green gas within minutes



USES WATER IN ITS SUPERCRITICAL STATE

Supercritical fluid gasification uses water in its supercritical state (high pressure and high temperature) to convert organic residual and other waste into usable resources in a process with an exceedingly fast reaction time.



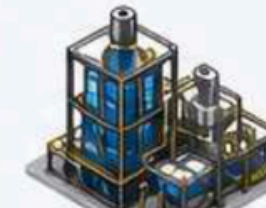
HIGH ENERGY RECOVERY

This process is unique in that more than 90% of the energetic content in the feedstock is converted into high-pressure gas.



FLEXIBLE & SCALABLE

The technology offers the flexibility of efficiently using different waste streams and can be adapted to various industrial needs.



MODULAR PRODUCTION PLANTS

The production plant has a modular design on an industrial scale, enabling standardisation and fast roll-out.

OUTPUTS – MULTIPLE VALUABLE RESOURCES

- CH₄ GREEN GAS (METHANE)**
Injectable into the gas grid and ready for use.
- H₂ GREEN HYDROGEN**
Direct use in industry, mobility and energy.

WHY THIS TECHNOLOGY MATTERS

- ✓ More than 90% of the energetic content in the feedstock is converted into high-pressure gas.
- ✓ Hydrogen and green gas are produced and can be used directly.
- ✓ Offers the possibility of efficiently storing (CCS) or using (CCU) from a new starting point (green high-pressure gas).
- ✓ Enables fast production of large volumes of renewable gas.
- ✓ Contributes to a **circular economy** and reduces landfill and environmental impact.

MODULAR PRODUCTION PLANTS

- ✓ Industrial-scale modules
- ✓ Standardised design
- ✓ Fast construction & deployment
- ✓ Easy scalability
- ✓ Lower risk, lower cost



CIRCULAR SOLUTIONS

Turns problematic waste into clean energy and valuable resources.



HANDLES WET WASTE DIRECTLY

No drying needed – lower energy use, lower costs.



EXTREMELY FAST PROCESS

Minutes instead of hours – scalable and efficient.



HIGH ENERGY RECOVERY

>90% conversion of feedstock energy.



SUPPORTS ENERGY TRANSITION

Renewable, reliable and compatible with existing systems.



ENABLES A SUSTAINABLE FUTURE

Supports a cleaner and more resilient energy system.

IMPACT AT SCALE



Our ambition is that, over the coming years, production capacity will grow to half a billion cubic metres of high-calorific green gas, i.e. 25% of the targeted level for green gas set in the Dutch Climate Agreement.



WASTE TODAY. **GREEN GAS** TOMORROW.



CLEANER ENERGY



CIRCULAR ECONOMY



BETTER FUTURE



in60seconds



Information Required

To offer a techno-commercial proposal we need the following information . _____

✓ **Sludge Composition**

✓ **Ultimate Analysis**

✓ **Proximate Analysis**

✓ **Sludge Quantities**

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