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Turn PFAS-Laden Sludge into Carbon-Negative, American-Made Biofuel

Problem | PFAS Pressure Is Rising and Options Are Tightening

PFAS “forever chemicals” are toxic, synthetic compounds that never naturally break down, instead concentrating in groundwater, wastewater, and wastewater’s residual solid sludge. Linked to cancer, infertility, birth defects, and other chronic diseases, forever chemicals are driving up sludge disposal costs—leaving local communities and taxpayers stuck paying the bill to clean up an environmental liability that they didn’t create.

It's not a question of if, but when, state and federal regulators further restrict PFAS and biosolids disposal, driving expenses higher and closing traditional outlets: Land application is under pressure, landfill liability is mounting, and aging incinerators face tighter air rules and limited capacity. Operators and regulators alike are asking: **Where will the sludge go—and at what cost?**

Decarb Energy | Biosolids to Biofuel

Decarb Energy transforms the world's toughest waste streams into **carbon-negative, American-made** biofuel. Our patent-pending **Biosolids+™ Trailer** is a compact, prefabricated, permit-light module purpose-built for sludge. It combines proven technologies that have been in industrial use for over a century to enable **on-site sludge processing, PFAS destruction at the source, and production of valuable biofuel** for local use.

Partnership Model | Infrastructure-as-a-Service

We deliver a turnkey service that **cuts per-ton sludge costs** versus the haul-and-incinerate/landfill status quo—with **zero partner capex**. Decarb Energy owns, finances, fabricates, maintains, and operates the trailer, which deploys in days, not years.

We also align with existing haulers and contracts. Our on-site system recovers energy and destroys PFAS, with residual biochar handled per current disposal contracts. We also support a per-ton retainer for backup disposal to ensure continuity and keep haulers whole.

Mission | Decarb Energy's Commitment

Our mission is to **convert pollution into profit, build healthier communities, and knock the “forever” out of “forever chemicals”**—proving that it's not just possible to tackle PFAS head-on, but also profitable. Our experience and technology save public and private facilities time and money with future-proof solutions.

Why Wastewater Facilities Partner

- ✓ Lower sludge disposal costs
- ✓ Destroy “forever chemicals” at the source
- ✓ De-risk regulatory exposure
- ✓ Protect against budget shocks
- ✓ Decarbonize with local biofuel
- ✓ Accelerate with modular equipment
- ✓ Improve local air & water quality
- ✓ Create next-generation energy jobs
- ✓ Champion American-made biofuel

Zero partner capexLower disposal costs per tonCash flow from biofuel & credit shareReduce PFAS “forever chemical” liabilities

Ready to Learn More?

Contact our team today and explore what's possible with your waste!



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Technical Primer

Meet the Biosolids+ Trailer

Meet the Biosolids+ Trailer—Turnkey, Modular, & Permit-Light

Technology | Integrating High-TRL 'Legos'

Biosolids+ Trailers are built like 'Legos' by integrating industrially-proven, off-the-shelf building blocks from blue-chip vendors to create a system tailored to wastewater and permit-light deployment. We added the natural next steps to conventional 'biosolids dewatering trailers,' because why stop at dried sludge when we have the technology today to finish the job?

Biosolids+™ Trailers Today



Meet the Biosolids+ Trailer

Biosolids Dewatering Trailers

Methanol Synthesis

Gasification

1800s



1920s



Bankable | Technology Readiness Level (TRL)

The Biosolids+ Trailer's underlying technologies are **high-TRL** systems pieced together in a **hyper-modular** trailer purpose-built for wastewater biosolids. Our innovation is the system packaging and integration, not new core technology. We've developed patent-pending process intensifications to deliver a **compact, permit-light** system sized for wastewater. The result: High uptime, fast rollout, reliable infrastructure, and financeable hardware.

Modular | Bolt-On to Existing Infrastructure

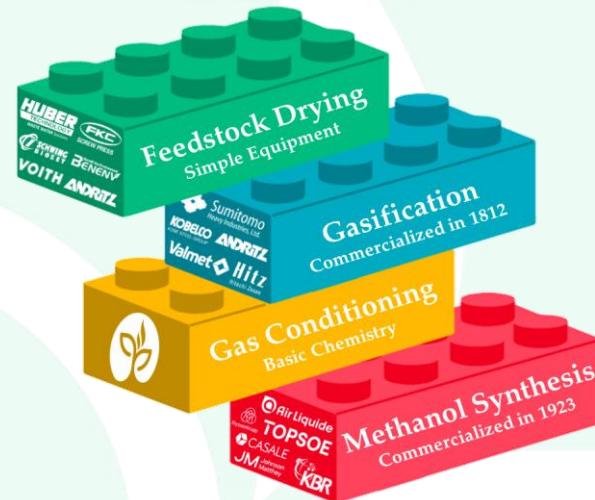
We asked ourselves, "Why can't energy development be as simple as switching on a rental power generator?" No stick-builds, no tall smokestacks, no partner capex, no science experiments—just simple, factory-built, permit-light trailers that bolt-on to existing infrastructure and augment dewatering trains. The system **requires no power grid, sewer, process water, or natural gas interconnects and deploys with zero permanent on-site infrastructure.**

Versatile | An End-to-End PFAS Solution

Designed for multifaceted PFAS destruction, the Biosolids+ Trailer also co-processes off-site wastes economically and sustainably:

- PFAS Wastes:** Activated carbon/resin filter media, PFAS-brines, fractionation & firefighting foams (AFFF), landfill leachate, FOG
- Organics:** Agricultural & forestry residues, food waste, AD digestate, dairy & swine manure, septic sludge, brown grease
- Specialty:** Pharma/drug take-back waste, select fracking residue, other industrial streams on a case-by-case basis

Wastewater plants, military bases, manufacturers, and everything in-between face mounting uncertainty and PFAS liability. Our distributed network of Biosolids+ Trailers is a low-cost, sustainable, and compliant answer for waste disposal and end-of-life planning.



System Specs

| Feedstock | Wastewater Biosolids |
|-----------------------|--|
| Outputs | Biofuel Biochar Liquid CO ₂ |
| Configuration | Trailer-Mounted |
| Deployment | < 3 Days |
| Siteworks | None |
| Utilities | None: Fully Islanded |
| Wastewater | None |
| Stack Emissions | Near Zero |
| Capital | Zero Partner Capex |
| Intellectual Property | Multiple Patents Pending |





Mission & Impact

Stakeholder & Community Benefits

Wins for the Climate, Community, and Taxpayer

Impact | A Better Solution for Sludge

We don't often like to think about what happens after water goes down the drain, but the reality is wastewater's critical infrastructure is in crisis. There are no good solutions today to handle PFAS-laden biosolids, and traditional outlets continue to tighten: Multiple states have restricted land application; the EPA designated PFOA & PFOS as **CERCLA hazardous substances** (2024), heightening landfill and leachate liability amidst **dwindling capacity**. Sludge incinerators also face **stricter air rules** and retirement of **aging infrastructure**.

Decarb Energy swaps budget uncertainty and escalating PFAS liability for lower, predictable per-ton processing rates that beat wastewater landfilling and incineration—all on-site with zero partner capex.

Benefits | Decarb Energy's Mission

+ Knock the “Forever” out of “Forever Chemicals”

The PFAS in biosolids are destroyed on-site—reducing downstream liability (Superfund), stranded-sludge risk, and disposal cost uncertainty.

+ Budget Certainty Without the Capex

Infrastructure-as-a-Service offers disposal at or below haul + incineration/landfill baselines—day-one savings with zero partner capital.

+ American-Made Biofuels that Power Local Jobs

Turn wastewater facilities into '**perpetual mini-biofuel hubs**'—local biofuels, cleaner air, next-gen jobs, and high-impact circular economies.

+ Community Air-Quality Wins

Virtually zero stack emissions, fewer diesel truck miles, less air pollution, and avoided sludge incineration in vulnerable communities.

+ Scalable & Replicable Playbook

Standardized, factory-built assets roll out fast, then our islanded, bolt-on design streamlines deployment with **no permanent on-site infrastructure**.

+ Support Critical Water Infrastructure

Decarb Energy's **profit share with host facilities** supports infrastructure investment and critical upgrades.

The Bottom Line

Destroy PFAS at the source. Cut sludge costs. Deploy in days. Decarb Energy's permit-light Biosolids+ Trailer turns a budget headache into local, American-made biofuel—with no capital outlay and a clear path to compliance. Visit our [website](#) or [reach out](#) to get involved:

- [Wastewater Plants](#) – Lower costs and destroy PFAS with zero capex.
- [Waste Streams](#) – Discover our economic, compliant disposal options.
- [Manufacturers, Suppliers, & Skid Shops](#) – Join our supplier list.
- [Fleets & Biofuel Facilities](#) – Leverage carbon-negative, American-made biofuel & drop-in feedstock that boost your community and bottom line.
- [CO₂ Users](#) – Secure biogenic carbon supplies with short supply chains.
- [Policy Leaders](#) – Champion American jobs & visible public-health wins.

United Nations' SDGs

