

Zero-Fill

100% Diversion100% Recycling

Zero-Waste
Zero-Emissions
Zero-Cost

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#### 1 Site Characteristics and Facility Details

## 1.1 What type of solid waste processing operation are you interested in developing in Connecticut?

Gravitas Infinitum LLC is introducing our "Carbotura Zero-Fill Services" for solid waste processing and statewide Comprehensive Materials Management Strategy. Our service technology is based on the Carbotura Recyclotron™, which integrates industrial multiphase microwave reactors, with both thermal and non-thermal microwave plasma reactors. The system is self-powered using a gas turbine generator with a microwave plasma reactor processing exhaust gases for a zero-emissions, zero-waste process.

Our services are designed to augment current waste management processes and are perfect for eliminating contaminated recycling, waste byproducts from incineration, landfill overfills, and landfill mining. With our technology which is considered a manufacturing process (Not a waste management process), there is no need for sorting, combustion of waste, or emissions from our processing. Our system can handle any type of waste, including large package formats, bales, whole tires, and sludge.

One of the key benefits of our services is that they are 100% circular. We divert 100% of the waste from landfills and recycle 100% of the materials. Our system is also 2-3x more efficient than any other method and requires no external power or water. This makes our services the lowest cost in dollars and to the environment.

Another key benefit of our services is that we capture atmospheric carbon and have a carbon negative operating footprint. This is a huge advantage for companies and municipalities looking to reduce their carbon footprint and make a positive impact on the environment.

The Carbotura Zero-Fill services utilize multiphase microwave energy as a disintegration catalyst to break down PFAS & PFOS into their key base elements. The process begins in the disintegration chamber, which is under a vacuum and in an inert atmosphere. Here, the PFAS & PFOS are subjected to multiphase microwave radiation which causes the molecules to vibrate and break apart.

The secondary plasma processes then take over to complete the breakdown of the elements. Through this process, the PFAS & PFOS are reduced to their base elements, which include carbon, fluorine, oxygen, and hydrogen.

These elements can then be further processed or recycled into new materials.

Overall, the use of multiphase microwave radiation as a disintegration catalyst in the Carbotura Zero-Fill services offers an effective and efficient solution for breaking down PFAS & PFOS.

Zero-Fill integrates a comprehensive zero-cost business model that only requires a standing guarantee on garbage supply and recycling fee payment, that is rebated annually. This has extended cost savings in the ability to stop handling waste 3-4 times through the current logistics processes, reducing costs, emissions, and overall community carbon footprint.

2 Please describe in detail the technology proposed, and potential capacity and throughput in tons per day and tons per year. Please describe how your project is

# consistent with the State's solid waste hierarchy and the state's goal of 60 percent diversion from landfill and combustion.

Zero-Fill is an industrial-scale, self-powered waste conversion technology that utilizes industrial multiphase microwave reactors, with both thermal and non-thermal microwave plasma reactors. It can handle any type of waste without sorting and has zero emissions and zero waste.

Carbotura Zero-Fill services can be rapidly deployed in a modular fashion, so that our clients can enjoy immediate and distributed 100% recycling, 100% diversion, Zero-Emissions, and zero-waste.

We understand that this may accelerate a lot of the current planning, and affect current programs and sunk costs, this is why we provide an easy transition approach to start by handling anything targeted at landfills, contaminated recycling, incinerator ash, and other items going to landfills. Our mission is to eliminate landfills.

Our service technology is based on the Carbotura Recyclotron<sup>™</sup>, which is self-powered using a gas turbine generator with a microwave plasma reactor processing exhaust gasses for a zero-emissions, zero-waste process. Carbotura provides a modular approach to handling any size project. The entry level facility size processes 25 tons per day and can be incrementally expanded to very large operation by deploying modular arrays handling up to 10,000 tons per day. Deployments can be incrementally expanded in 25 or 100 ton per day increments.

Our services are designed to augment current waste management processes and are perfect for eliminating contaminated recycling, waste byproducts from incineration, landfill overfills, leachate, and landfill mining. With our technology, there is no need for sorting, combustion of waste, or emissions from processing. Our system can handle any type of waste, including large package formats, bales, whole tires, and sludge.

The Recyclotron is a mass converter that uses advanced technology to convert the mass and energy of Municipal Solid Waste (MSW) into reusable high-quality materials. It does so by breaking down the molecular and atomic structure of the waste, sorting the materials at the molecular and atomic level, and restoring them into virgin usable forms. The process involves the integration of industrial multiphase microwave reactors and thermal and non-thermal microwave plasma reactors that are self-powered using a gas turbine generator with a microwave plasma reactor processing exhaust gasses for a zero-emissions, zero-waste process. The system is scalable, efficient, and offers numerous benefits, including zero-waste, zero-emissions, and 100% recycling. The result is a mass converter that can produce high-quality materials from waste, creating a sustainable and circular economy that benefits the environment, the economy, and society.

The underlying technology has been used in industrial applications for over 30 years and has several patents covering its use.

#### 2.1 The stages in the Zero-Fill Recyclotron process are as follows:

- Stage 1 Multiphase Microwave Reactors disintegrate materials into vapors and base solids.
- **Stage 2** Multiphase Generators drive up to 1MW of directed Microwave energy (Per Reactor) tuned to the resonation frequencies of the materials.
- Stage 3 Materials condensing and collection, up to 16 discrete materials streams.
- Stage 4 Gaseous and Liquid Fuels Collection for energy generation and sales
- **Stage 5** Zero-Emissions Gas Turbine Generator providing for all system power, atmospheric carbon capture, and exhaust gas carbon capture. Value materials are produced on a customized "recipe" basis.

# 2.2 The system's most recent applications that demonstrate market-readiness and technological viability:

Carbotura Technology has been tested and proven with the wastes listed below.

- Sorted and unsorted MSW
- Multiple different glass-fiber composites including wind-turbine blades and insulation panels.
- Multiple different types of flooring categories (including vinyl flooring)
- Roof shingles
- Car shredder residues
- Carbon-fiber composites
- Paint waste
- Seats
- Different foams
- Mixed plastics
- PET
- Tires
- Bio & Medical waste
- Rubbers (including silicon rubber, natural rubber)
- Multiple different polystyrene waste streams (including panels)
- PMMA
- EPS
- Biomass (including wood, hemp)
- Labels and films
- C&D: roof shingles, all types of flooring categories including vinyl floorings, foam bases, polystyrene based and glass fiber-based insulation panels, paint waste, cables, pipes.

References and Site Visits Available under NDA.

### 3. What kinds of site characteristics are needed for your operation?

#### 2.3 Acreage Needs?

The deployment requires minimal infrastructure with no unique or high demand resources, infrastructure, or support needs. A typical commercial facility can process up to **500 tons per day**, requires approximately **30,000 square feet of manufacturing floor space**, with 35 feet

of overhead clearance. As such, 2,500 tons per day would require a site of approximately 4 acres in size. Additional space may be required for intake of waste material streams as well as ISO containers and Tanktainers for material outputs and storage for incoming MSW, and outgoing materials. The system is fully self-powered from the renewable fuels processed.

We have developed multiple deployment configurations depending on the scenario desired.

It would be preferable to be co-located at existing landfills for the ability to simultaneously address legacy waste. It could also be located at transfer stations to divert waste without the need for expensive material sorting or transport. Additionally, it could serve as a materials recovery facility within any existing processing facility, thereby dramatically reducing CAPEX and OPEX for that initiative.

Our preferred handling method is shredded MSW baled, wrapped, serialized, and loaded on a flat pack container. We process whole bales at a time which keeps everything very clean and tidy. We provide this equipment for the local site and remote satellite sites such as small rural towns, transfer stations, and industrial users.

# 2.4 Utility connection availability needs and facility usage requirements including power, water, sewer, and gas.

No, no external power or water is required, our services are a net freshwater producer. Utility connections for general purpose office and human safety factors are required.

# 2.5 Access needs including transportation modes and proximity requirements (road, rail, port, etc.).

Ideally, the facility will be located within a few miles of a major rail spur and trucking transportation throughways to enable multiple model container movement for rural community intake, and materials shipping.

### 3 What are the input and output requirements to make development feasible?

#### 3.1 Inputs

#### 3.1.1 What type of feedstock is required for your facility?

Our system can handle **any type of waste**, including large package formats, bales, whole tires, and sludge. Carbotura Zero-Fill Services eliminates the need for sorting and incineration or landfilling of waste. One of the key benefits of our services is that they are 100% circular. We divert 100% of the waste from landfills and recycle 100% of the materials. Our system is also 2-3x more efficient than any other method and requires no external power or water. This makes our services the lowest cost in dollars and to the environment. We reserve the right to determine proper hazardous materials handling is being accomplished on our ingest of hazardous materials.

Note: We will not handle Radioactive, munitions, or explosives, these are scanned prior to processing.

# 3.1.2 Are there any specific characteristics needed to make the feedstock viable or processing limitations (e.g., food scraps must be source separated)?

There are no specific characteristics or requirements to make the feedstock viable for processing. Carbotura provides the necessary equipment and services for bailing and wrapping so that all trash can be tracked from point of origin, or on arrival and all climate credits are attributed to the client. These are monetized by Carbotura and applied as part of the rebate (up to 100% of any tipping/recycling fee), **as is materials sales**. Production starts 12-18 months (about 1 and a half years) after contract signing.

Our services can be standalone or co-located with waste handling facilities. We can also supply baling, wrapping, loading, and containers for shipping to our nearest service center.

Modularity allows for scaling from small commercial systems to industrial or municipal level facilities. The modular systems can be deployed as a strategic and tactical alternative to current waste recycling, incineration, or composting processes without the regulatory bottlenecks required for full manufacturing operations. Carbotura is designing mobile units for events, and emergency response.

# 3.1.3 What is the tonnage/ volume needed to make your facility viable? Provide a range or a minimum if applicable.

From 25 to 10,000 tons per day, Carbotura Zero-Fill services provides a turn-key solution that requires no investment from the customer and can increase in scale as necessary. We provide all the capital, operations, and maintenance for the duration of the contract. The service is charged at competitive rates per ton of waste eliminating/recycling, and clients can qualify for annual rebates of up to 100% of any fees resulting in net-zero-cost waste elimination. This is because Carbotura monetizes the climate credits and materials sales, which are attributed to the client, and applies them as part of the rebate. A contractual guarantee Is required for waste and recycling fee payment. Clients can qualify by having a sufficient credit rating of BBB- or better or provide a standby letter of credit from a tier one bank or several other credit enhancement options. They are also required to have a long-term waste elimination/recycling contract in place.

### 4 Can you provide tip fee estimates?

Yes. The typical tip fee is \$65 to \$75 and may be rebated annually back to the customer as part of the service. Fees are adjusted annually according to CPI.

At Carbotura, we are committed to providing our clients with the highest quality Zero-Fill recycling services. As part of our dedication to transparency and customer satisfaction, we offer a rebate review policy that allows clients to receive a rebate of up to 100% of the per ton recycling fee.

On an annual basis, we will review the financial performance of our Zero-Fill services. If our net earnings exceed a certain threshold, we will rebate a portion of our profits back to our clients. The rebate amount will be determined based on a percentage of our net earnings and the per ton recycling fee paid by the client.

Please note that in order to receive this rebate, clients must specifically request a review. We will not automatically conduct a review or issue a rebate without the client's explicit request.

We believe that our rebate review policy demonstrates our commitment to our clients and our dedication to providing the best possible recycling services. If you have any questions about this policy or would like to request a rebate review, please contact us at your earliest convenience.

#### 4.1 Outputs

4.1.1 What are the outputs of your process (e.g., electricity, renewable natural gas, compost, baled material, etc.)?

Outputs from Carbotura Zero-Fill are as follows (Next Page):

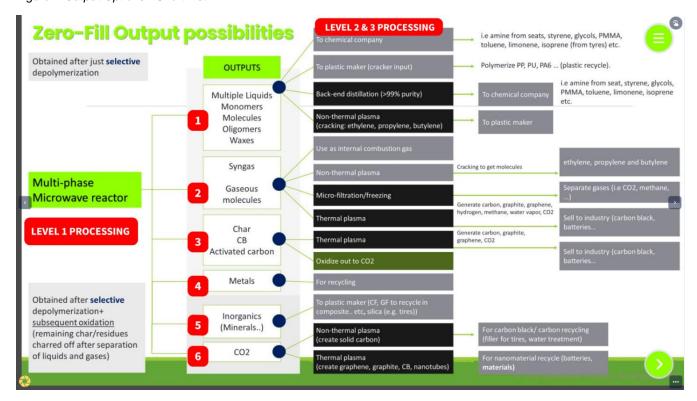


Figure 1-Output Options - Short List

We have hundreds of process recipes that can accommodate selective depolymerization to simple fuel and carbon products manufacturing, outputs are selected for economic and local circular supply chain value.

We can configure deployments depending on local community needs microgrid output for electricity, utility support, local renewables fuel supply, SAF, and renewable water.

#### 4.1.2 Renewable Fuels

Conversion of waste to renewable fuels allows our systems to be self-powered, and depending on configuration they can generate excess fuels or power.

#### 4.1.3 Renewable Char

Our modules create a non-toxic chart that can be utilized for downstream refining into high value materials (below). Additionally, using char as a soil amendment can replenish lost carbon stocks in degraded lands, beneficially recycling the carbon by-product of a regional industry, and improving soil quality. It can be used as an additive in asphalt, mortar, and concrete, to lower its inherent carbon footprint and enhance both durability and sustainability.

#### 4.1.4 Renewable Activated Carbon

A material used globally can be derived from the char from waste. Activated carbon is used to purify liquids and gases in various applications, including municipal drinking water, food and beverage processing, odor removal, industrial pollution control.

### 4.1.5 Renewable Graphite

Graphite is a highly valued industrial commodity. It is used in pencils, lubricants, crucibles, foundry facings, polishes, arc lamps, batteries, brushes for electric motors, and cores of nuclear reactors. It is a critical mineral to US supply chains as defined by the Dept of Energy. There is currently no graphite production in the US and over 80% of the market is controlled by China and the second largest reserves in Turkey.

#### 4.1.6 Renewable Graphene

A nanomaterial that is used in supercapacitors, semiconductors, solar panels, coatings, alloys, concrete, foams, gels and textiles. Graphene is a one-atom-thick sheet of carbon atoms arranged in a honeycomb-like pattern. Graphene is considered the world's thinnest, strongest, and most conductive material of electricity and heat. Graphene has the potential to revolutionize entire industries - in the fields of electricity, conductivity, energy generation, batteries, sensors, 3D Printing and more.

#### 4.1.7 Other Outputs include.

Distilled water, Silica, and entrained recycled metals.

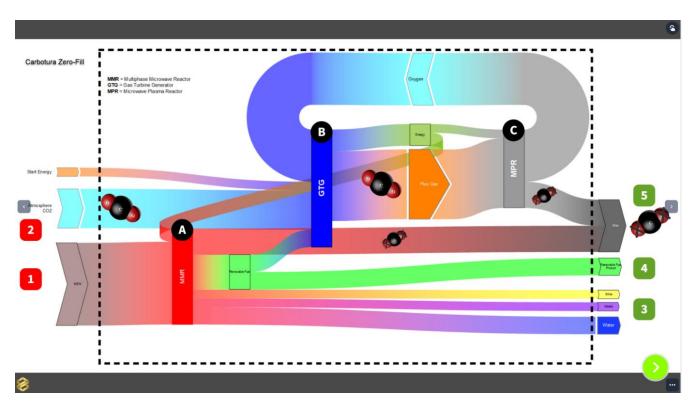


Figure 2 - Simple Mass Flow/LCA

### 5 What minimum revenues or revenue guarantees do you need for these outputs?

We integrate our services into a comprehensive zero-cost business model that only requires a standing guarantee on a long-term waste supply agreement and tipping/recycling fee payment, The tipping/recycling fee is typically \$65-\$75 per ton. At Carbotura, we are committed to providing our clients with the highest quality Zero-Fill recycling services. As part of our dedication to transparency and customer satisfaction, we offer a rebate review policy that allows clients to receive a rebate of up to 100% of the per ton recycling fee.

#### 6 What are the environmental attributes associated with your facility?

### 6.1 Air emissions, and mitigation thereof

The Zero-Fill Recyclotron technology has zero emissions and zero waste, making it more sustainable and efficient than traditional waste management processes.

**6.2 Discharges, including where discharges will occur and mitigation of discharges**Negative Emissions Technology: Zero-Fill has zero emissions and utilizes atmospheric carbon capture.

Atmospheric carbon capture is the process of capturing carbon dioxide from the atmosphere and converting it into a form that can be safely used in advanced carbon output materials. This is done with our gas turbine generators that power the systems.

**6.3** Waste material or residuals and description of disposal of such materials. Carbotura Zero-Fill has zero waste or residuals. Each facility will be 3<sup>rd</sup> party certified by SWEEP (Solid Waste Environmental Excellence Performance). SWEEP is the only

comprehensive national voluntary sustainability standard for the solid waste management industry. The SWEEP System was built to recognize and reward leaders in the industry via third-party certification. SWEEP brings consistent metrics and definitions to provide clarity and comparability. The SWEEP system encourages Local Governments and Waste Management Service Providers/Facilities to work collaboratively towards a more sustainable materials management market.

#### 6.4 Beneficial Attributes

Eliminating Financial Risks: Without the ability to guarantee long-term sustainable waste management, municipalities and waste management companies risk losing business and incurring fines for non-compliance with environmental regulations. With Carbotura Zero-Fill services, clients can eliminate waste at zero-cost while avoiding the financial risks of non-compliance.

Eliminating Reputation Risks: In today's socially conscious environment, businesses and governments alike must be careful to maintain a positive reputation. By adopting Carbotura Zero-Fill services, States and municipalities as well as waste management companies can be seen as forward-thinking and responsible, which can boost their reputation and public perception.

By not using Carbotura Zero-Fill services, municipalities and waste management companies are exposing themselves to significant risks that can have serious consequences. Carbotura Zero-Fill services guarantee sustainable and environmentally responsible waste management for your communities.

# 7 Please describe how the project will minimize negative environmental and health impacts of waste management, including minimizing greenhouse gases.

Eliminating Environmental Risks: Traditional methods of waste disposal like landfills and incineration produce harmful emissions and can be harmful to the environment. With Carbotura Zero-Fill services, waste is processed using advanced technology that emits no harmful pollutants, ensuring that the environment is protected.

Eliminating Health Risks: Exposure to harmful pollutants and toxins from waste can lead to severe health risks, including respiratory problems and cancer. Carbotura Zero-Fill services provide a safe and healthy environment for both workers and the community.

### 7.1 Carbon Credits and additional Climate Credits (RINS, RECS, etc.)

Carbotura is a Carbon Credit originator. Credits will be sold through the Puro Earth marketplace (<a href="www.Puro.earth">www.Puro.earth</a>), a NASDAQ owned company that lists their live carbon credit pricing and exchange. Puro is one of the largest marketplaces servicing carbon credit purchases from JP Morgan, Swiss Re, Microsoft, Stripe, Shopify, The Chan Zuckerberg Initiative (CZI), and many more. <a href="https://puro.earth/carbon-removal-index-price/">https://puro.earth/carbon-removal-index-price/</a>

Initially up to 16 raw materials streams, and unlimited number of post-processed materials

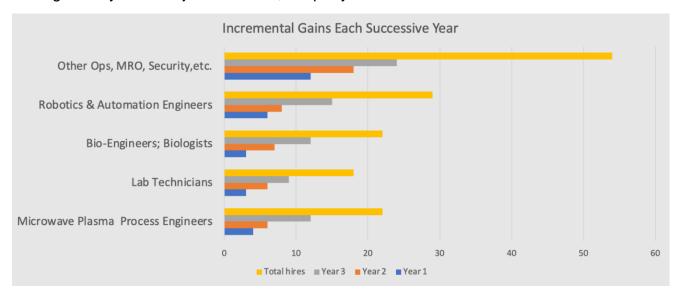
Outputs will be identified with **Circulor** (<a href="www.circulor.com">www.circulor.com</a>). Circulor is the leading sustainable supply chain traceability provider. Headquartered in the UK, with a global footprint across Germany, the U.S., Singapore, and Australia. Circulor enables businesses to fully analyze, track, and manage their supply chains to ensure responsible sourcing and improve sustainability. Circulor does this by providing an enterprise software platform, which creates a reliable chain of custody of materials and attaches GHG emissions and other ESG data directly to the flow of materials. Circulor provides sustainable supply chain solutions for companies such as Hitachi, Volvo Cars, Polestar, BHP, Total Energies, Jaguar Land Rover, Southwire, Trafigura, Blackstone Minerals, Urbix Inc, Element 25, and more with a focus on North American expansion.

The outputs are all containerized in ISO containers and Tanktainers for local and global distribution.

#### 8 Community Benefits

Please describe host community benefits that would be provided as part of your project, and how those benefits would be shared or realized including job creation and workforce training opportunities.

Each enterprise level Carbotura facility can generate up to 100 new high-tech jobs and positions that are high-value and sustainable for the development and future operations. The average salary of these jobs is ~\$124,600 per year.



Carbotura recognizes that a company is only as strong as its workforce...and its people. Carbotura is committed to a **diversity** and **inclusion** program that will be judged successful when it is treated as a strategic business initiative.

We recognize that diversity and inclusion should not be a "one-off" event. Our approach will be to anchor the core values that diversity and inclusion are designed to address in organizations.

We recognize that diversity begins with the employee population as measured by a range of demographic data points such as gender, age, race, ethnicity, religion, veteran status, etc.

With recent events (e.g., Covid-19, war in Ukraine) having severely impacted American society, one of our most important diversity goals will be to hire at least 20% African American, Latino, and other people of color and diversity within the first 3 years of operations. We believe this goal will make our organization stronger and lead to more success.

#### What makes Carbotura Unique?

- Zero-Now! Zero-Waste, Zero-Emissions
- 100% Recycling
- 100% Diversion from landfills
- Any type of waste
- No sorting
- No Combustion of waste
- No Emissions from processing
- No waste from processing
- No Capital Required, just good credit.
- Can handle large package formats, bales, whole tires, sludge, etc.
- Scalable to exceptionally large sizes 10,000TPD
- 100% circularity
- Atmospheric Carbon Capture
- Carbon negative operating footprint
- 2-3x more efficient than any other method
- No external power or water required.
- Can provide microgrid energy source.
- Lowest cost in dollars and to the environment

### 9 Synergy

Co-locating near landfills to simultaneously address legacy waste. Since the outputs include large volumes of renewable raw materials entering local supply chains, this creates tremendous opportunities for manufacturing companies, shipping and logistics companies and the local economy.

Carbotura will seek and secure appropriate synergistic partnerships with local vendors, suppliers, and educational institutions, located within and outside the State. Carbotura would retain and obtain products and services with these strategic and tactical partners as part of the planning and implementation process to devise the optimal solution. This would include obtaining quotes from Industrial and mechanical suppliers, logistics and trucking operators, engineering and construction firms, and other local vendors and suppliers that would be of critical use and need.

Carbotura can also supply certified circular materials to local manufactures.

#### 10 Market-Ready

This is not a monolithic plant/facility development, it is a deployment of rapid response equipment that once manufactured can be assembled on site and operational within 30 days.

We avoid the large project pitfalls and delays.

In addition to funding 100% of the cost, Carbotura can address staffing, recruitment, partnering with local service providers on shipping, and transportation, hauling, and tipping efficiently as needed.

#### 11 Business Plan

There is no financing or funding required from any City, County, or State if a long-term commitment is made to provide a continuous waste stream to the facility. Ideally, a 20–30-year capacity agreement is required dedicating the contracted waste-stream volumes to the Carbotura facility including all municipal solid waste, plastics, tires, and any other applicable waste material under Community management or direction with no sorting necessary.

Under these guidelines, Carbotura would fund the entire deployment of services. Our services can be standalone or co-located with waste handling facilities. We can also supply distributed customer premise equipment for shredding, baling, wrapping, loading, as well as flatpack containers for shipping to our nearest service center.

### 12 Community Assistance

- Assistance with site selection and securing thereof.
- Assistance and support in navigating the provider landscape

#### 13 Developer Experience

Please describe the project team's background and experience developing waste infrastructure projects, including the proposed technology, and your track record for successful development and/or operation. Please provide information on applications of the proposed technology demonstrating how widespread and how the technology has been proven through other development projects.

We have personnel with years of waste management experience, and members of SWANA, SWANA Technical Divisions, and SWEEP.

Gravitas Infinitum's Carbotura Team is fortunate to have a management team with a wealth of business, finance, technology, startup, innovation, strategy, sales, and marketing experience. Members of this team have an impressive track record of managing budgets in excess of \$3 billion P&L and \$14 billion CAPEX/OPEX, as well as consulting for Fortune 1000 companies and generating contracts worth over \$25 billion.

The team's expertise extends beyond traditional business sectors, with experience advising organizations such as the US Navy, Department of Education, Nucor Steel, Boeing, Bank of America, Disney, Sony, Hewlett-Packard, Department of Defense, Hertz Corp., and many others. This experience has been applied to the deployment of global-scale infrastructure projects for various government entities in record time.

The team's accolades include receiving the 2000 Smithsonian Computerworld Award for outstanding achievement and design, successfully creating and exiting several startup

companies, implementing multiple investment funds, managing over 50 M&A deals, and designing technology platforms in Healthcare and Technology Transfer Licenses.

The management team's dedication to innovation and solutions for the new circularity industry is unwavering. They are committed to standardizing processes, workflows, supply chain management, and standard operating procedures, all with the aim of creating a more sustainable future. The team's deep experience and passion for excellence make them ideally suited to lead Gravitas Infinitum's Carbotura Team and drive success in this exciting and rapidly evolving field.

### 14 Financing Arrangements

14.1 Please describe the preferred and acceptable financing arrangements contemplated for the project, including contemplated financing, development, ownership, and operation of the facility; and needed commitments (including duration thereof) from municipalities and other entities with respect to tip fees, and the marketing of other materials and byproducts of the project.

Carbotura prefers a 20-30 year, put-or-pay capacity agreement. Capacity can be expanded or reduced as needed throughout the life of the contract. Carbotura owns and operates the facility.

The client hereby guarantees to provide a 20–30-year warranty on the waste stream of MSW to be supplied and agrees to a financial guarantee for payment of the recycling fee, and hereby represents and warrants that it possesses a BBB- credit rating or better or shall provide an approved credit enhancement.

Our capacity agreement is for turnkey services; all costs, operations, maintenance are handled by Carbotura.

We are making a serious investment in your community at a rate of about \$22,000,000 - \$25,000,000 per 100-ton per day of capacity deployed. We are prepared to deploy billions of dollars of capital into multiple communities across the state. Our capital partners are large sovereign wealth funds that are focused on sustainable infrastructure projects. All that we require to deploy is the contract with the guarantees, nothing more.

We will honor a State backed guarantee for any and all communities small or large so that everyone is served.

15 Does the project contemplate any energy or environmental attribute offtake agreements under state jurisdiction, or federal funding of any type?

No

16 How will the proposed financing arrangement ensure stable and competitive pricing for municipalities?

We offer optimal stability with no State Capex required for all deployments, the recycling fees are adjusted with inflation and rebated up to 100% each year, creating a net-zero cost, endless recycling of all waste inputs.

# 17 Within what approximate time frame (years) of contract execution would the project be able to commence operation, assuming timely state and local approvals?

Deployment can be within 12-18+ months depending on the scope and scale of the contract.

# 18 Please provide information on technology performance guarantees by the technology provider or project developer.

As a developer of large deployments, we understand the importance of ensuring that all equipment vendors provide a technology performance guarantee. In order to achieve this, we establish a set of performance metrics that are critical to the successful operation of the deployment, such as uptime, throughput, and reliability.

Once these metrics have been defined, we would require that all equipment vendors provide a written guarantee that their products will meet or exceed the established performance standards. This guarantee would be a contractual obligation that vendors would be required to honor throughout the life of the project.

Furthermore, our service model is designed to run similarly to a data center, with N  $\times$  N redundancy to ensure maximum uptime and reliability. In addition, our 25 TPD Recyclotron Modules are designed to be hot swappable, meaning that they can be replaced without interrupting the operation of the overall deployment.

To further ensure the reliability of our system, we would also establish a comprehensive maintenance and repair program. This program would include regular inspections and preventative maintenance to minimize the risk of equipment failure, as well as a rapid response team to address any issues that do occur.

Overall, we believe that our approach to ensuring vendor performance guarantees, coupled with our redundancy and maintenance strategies, will enable us to deliver a highly reliable and effective project that meets the needs of our clients.

#### 19 Procurement of Anaerobic Digestors

DEEP is requesting written public comments on the following questions and topics relating to the deployment of AD resources in Connecticut or other related topics not listed below:

Should DEEP initiate a new procurement for long-term power purchase agreements for electricity and RECs from anaerobic digesters? Should/could such an RFP be coordinated with municipal RFPs for organics diversion services?

If DEEP were to conduct a procurement for energy and RECs associated with anaerobic digestors:

a. What is an appropriate minimum and maximum facility size in MW capacity and or tonnage of waste?

- b. What requirements or standards should the procurement put in place for feedstock used at the anaerobic digestors, and how would bidders demonstrate a commitment to any such feedstock requirements and ongoing compliance?
- c. What considerations should inform any policy for renewable natural gas procurement from anaerobic digesters?

### 20 Carbotura Comment on Anaerobic Digestors

Anaerobic digestors are a widely used technology for the treatment of organic waste, but they have several negative attributes that limit their use in the circular economy industry. One of the main drawbacks of anaerobic digestors is their poor performance in the efficient use of waste molecules. The anaerobic digestion process only converts a portion of the organic matter into biogas, leaving a significant amount of organic material behind that could be put to better use in other applications. This makes the technology suboptimal for use in industries that are focused on achieving maximum resource efficiency.

Another major limitation of anaerobic digestors is their inability to eliminate per- and polyfluoroalkyl substances (PFAS) and perfluoro octane sulfonate (PFOS) from the waste stream. These highly persistent chemicals are increasingly being recognized as significant environmental contaminants that pose serious health risks to humans and wildlife. Anaerobic digestors are unable to break down these compounds, which means that they are not an effective solution for managing waste that contains PFAS and PFOS.

Considering these shortcomings, anaerobic digestors can be considered a substandard technology for application in the circular economy industry. The industry's primary objective is to achieve maximum resource efficiency and minimize waste, and anaerobic digestors do not meet this standard. As a result, it is essential to explore other waste management and resource recovery technologies that are more effective in terms of resource recovery and environmental protection. Overall, while anaerobic digestors may have some benefits, their limitations make them a suboptimal solution for waste management in the circular economy industry.

### 21 Community Development

At Carbotura, we recognize the importance of supporting our local communities and promoting sustainable development. As part of our commitment to these values, we have established the Carbotura Circular Community Fund, which is designed to provide financial support for local community development projects or local universal basic income (UBI) initiatives.

Under this policy, we will take a percentage of our profits and donate them to the Carbotura Circular Community Fund. The exact percentage will be determined on an annual basis by our management team, based on our financial performance and other factors.

By donating to this fund, we expect to see several benefits. First, we will enjoy reduced taxes, as charitable donations are tax-deductible. Second, we will enhance our standing within the community, which we believe will have a positive impact on our earnings over the long term.

Finally, and most importantly, we will be able to make a meaningful contribution to the economic and social well-being of our local area.

We believe that investing in our communities is essential to creating a sustainable and prosperous future. By supporting local development projects or local UBI initiatives, we hope to make a tangible difference in the lives of our neighbors and contribute to the overall health and vitality of our region.

#### **Public Comments – Reference**

Please see public comments and guidance provided by Gravitas Infinitum via the recorded Public Comment process.