

# PLASTIC RECYCLING Where every grade counts

JET Recycling America





### **One Man's Trash is Another Man's Treasure**

"A sea change is coming in America's \$100+ billion waste management industry. Control of the waste stream will change hands as the value of 'garbage' turns from negative to positive. Liabilities will become assets as refuse becomes a resource."

JET Recycling America is a key component of the coalition of technologies that will make Zero Waste a profitable reality and the single greatest contribution to positive environmental change.

For decades, the public, legislators and waste management officials have been told that most plastics are not recyclable. Plastic recycling has been based on carefully (and expensively) sorting out just 2 or 3 grades of plastic and discarding the rest. Even in cities with the most effective curbside recycling programs, rarely more than 20% of discarded non-durable plastic waste is truly recycled. According to the EPA, only 9% of the 32 million tons of plastic discarded in 2012 was recovered and recycled. All the rest goes to landfills, incinerators, or is shipped overseas to become another country's problem. Because of long transport, repeated handling, landfill exposure and other factors, huge amounts of plastic waste escape into the environment.

Thinking the problem unsolvable, many have called for bans on materials like plastic bags and Styrofoam containers. Research in both America and Europe has proved these bans do more environmental harm than good, and are also economically damaging. Others favor plastics-tooil technologies or incinerating plastic along with other waste. Both of these choices are simply another way of burning non-renewable carbon with the associated emissions. Neither of these waste-to-energy choices has proved profitable on its own, and these are certainly not sustainable uses of the resource.

Now there is an alternative. There is technology that can accept virtually all plastic waste from all sources regardless of contamination, and that can blend these materials and transform them directly into permanently durable, high-value products – all made from 100% recycled plastic.

For over two decades, a technology has been transforming comingled plastic waste into products for consumer, commercial, institutional, municipal, agricultural and animal husbandry uses. More than 100 systems based on the proprietary Julien Environmental Technology (JET<sup>™</sup>) have been installed in Europe where plastic waste is routinely rinsed and sorted into separate recycling bins by consumers.

Two years ago, JET Recycling America, Inc. (JRA) obtained the exclusive North American rights to JET. We have researched the markets for both recycled and virgin plastic products as well as the raw materials markets, and have developed the special processes required to handle the more difficult US waste stream. We will build waste plastic processing and manufacturing facilities that will change the way Americans look at their garbage.

Recovery and recycling of plastic waste has long been the largest single problem in waste management. It is also the largest single economic opportunity and the one with the greatest

"Pollution is nothing but the resources we are not harvesting. We allow them to disperse because we are ignorant of their value." - Buckminster Fuller positive environmental impact. Although single-stream and dual-stream curbside collection programs have become common, even the best do not recover the plastic films, foam and packaging that comprise the great majority of plastic waste. These materials are considered to have no value. They are left mixed in with food scraps and other waste, and sent to landfills or incineration with municipalities shouldering the cost. Until now, there has been no system that can identify and separate the huge variety of materials in mixed solid waste.

Organic Energy Corporation has developed a system that can sort all the waste – metal, glass, paper, cardboard, textiles, rubber, plastics and biogenic materials. Every type of material is sent to partner technologies, usually co-located on site, which put each material to its highest and best use – both environmentally and economically. All waste can now be collected in a single bin saving huge amounts of consumer and business time, and cutting collection costs by 30-50%.

This technology is the core of EcoHub – the coalition of technologies that will make Zero Waste a profitable reality and the single greatest contribution to positive environmental change. JET Recycling



#### Typical composition of Municipal Solid Waste

America was selected by EcoHub to be its plastics processing and recycling technology, and we are one of the most profitable components.

In addition to its standalone processing/manufacturing facilities – the first to be in Las Vegas, Nevada – JRA will work with EcoHub to develop large-scale operations across the nation and around the world. The first EcoHub facility is being developed in Houston, Texas, for its Bloomberg Challenge Award-winning "One Bin for All" program. Participation in EcoHub brings JRA into a world-class alliance that includes IBM Smarter Cities/Smarter Planet, ACS Grupo Industrial, ECON Group, and other leading environmental and waste processing technology leaders.

JRA's special equipment accepts all grades of post-consumer plastic waste including mixed films and EPS foam that conventional recycling programs reject. This equipment is designed and built to handle even the most difficult-to-process commercial, industrial and agricultural plastic waste regardless of contamination. The most significant of these is agricultural film of which millions of tons are annually landfilled or burned in the fields. For JRA, these are valuable resources adding to other extremely low-cost raw materials from which we can manufacture lumber, decking, landscaping materials, structural building kits, and custom products for institutional uses and municipal infrastructure projects.

It took two years of research and consulting with leading materials processing and manufacturing companies to develop JRA's fully automated system that intensely washes, scrubs, grinds, compacts, agglomerates, recycles, molds and precision machines mixed plastic waste directly into high-margin products for the \$10 billion+ market for wood replacement and other recycled plastics applications. A variety of JET molded parts are robotically machined to create structural building kits that require no foundation, and can be assembled without measuring, cutting, drilling or nailing – even by the most inexperienced do-it-yourselfer.

The core of the JRA manufacturing system is the JET extruder which is comprised of a proprietary barrel and specially fitted co-rotating conical screws. Under programmable logic microprocessor control, the extruder thoroughly homogenizes comingled plastics at the precise pressure and temperature, and for the exact duration required to melt the highest melting point plastics without burning or crystallizing the lowest melting point plastics. This process produces the incredibly cohesive JET<sup>™</sup> mixed plastic material which is fed into a wide variety of both simple and complex molds. JRA adds two major features to the JET process:

- An intensive pre-process washing system which delivers pristine feedstock. Eliminating even the most tenacious sticky and hardened contaminants, the system also downsizes, densifies and dries all materials for optimum JET process throughput and end product quality.
- Programmed, automated robotic machining of molded profiles to create engineered products from benches, tables and planters to sheds, barns, greenhouses and even complete houses for human habitation. JRA can also produce a great number of products used in federal, state and city projects – from seawall facings to sight & sound barriers, and numerous other products for parking and roadway improvement, parks & recreation, etc.

Unlike other recycling companies which either just sort materials for commodity sale, or that buy these pre-sorted materials from far and wide for their manufacturing use, JRA locates its facilities where the waste is produced and collected. This keeps both acquisition costs and transportation costs extremely low.

JET products can be sold to the same communities from where the plastic waste originated while providing local jobs, profits, tax revenues and great environmental benefits. Permanently durable JET products further benefit the environment by replacing the use of non-sustainable and environmentally hazardous materials, and by reducing the disruption of otherwise required replacement of shorter-lived products.

JRA facilities are designed for 24/7/365 operation. The Las Vegas facility will have two

processing/manufacturing lines. Each JRA line has production capacity of more than 24 million pounds per year. (Note that financial plans assume plant efficiency at 80% which is conservative based on European operators' performance). The total cost of raw materials including all required additives, pigments and hardware is under 26 cents/lb. The average selling price of end products is over \$1.35 per pound. These factors combined with JRA's efficient, computer-controlled, highly automated operations produce gross margins higher than 63%.



The Houston EcoHub project and projects being proposed to other large cities (including a response to New York City's recent massive RFP) will include JRA operations with four to twelve processing/ manufacturing lines. America's largest cities and the overseas projects appropriate for EcoHub will require multiple operating locations to handle their millions of tons of solid waste. Collection and recycling programs like Houston's "One Bin for All" are the bright future of waste management. Single-bin collection programs using EcoHub sorting technology are the most efficient and economical path to Zero Waste, but many counties and cities have long-term commitments and large infrastructure investments for curbside collection and sorting of recyclables. JRA is also the ideal solution for these operations – the only system that can recycle virtually all of the collected plastic waste. Some cities, like San Antonio, Texas, are implementing curbside collection of plastic bags, packaging films and even EPS foam in addition to bottles and rigid plastics. For JRA, this further adds to and optimizes the feedstock available for manufacturing. Whether for single-bin or curbside recycling programs, many hundreds of facilities will be required to recycle America's previously wasted plastic resources.

Every JRA facility will be a prime example of clean, sustainable manufacturing. Our systems filter and reuse the great majority of wash water required, and can even use processed municipal waste water in many locations. This effectively reduces water usage to zero with no effluent. JRA operations produce no emissions. The only residue that is not processed is the dirt and contaminants that were removed from the plastic. These materials are extracted by the washing system. Organic compounds are returned to nature. Inorganic material is used in concrete manufacturing or otherwise properly disposed.

Waste plastic received at a JRA facility is conveyed into a closed, computer-controlled processing system and, for the most part, is not visible again until it is ejected from JET molds as plastic lumber profiles or proprietary custom products. (See JET Recycling America System & Processes "Walk-through" for a detailed description of the complete system and processes.)

JRA's JET<sup>™</sup>-branded products effectively sequester carbon and all constituent chemicals. There is no leaching of organic or inorganic compounds into soil or water. JET material is not attacked by insects, gnawing animals, mold, mildew, fungus or marine organisms.

JET construction products require no foundation and can be permanently earth-buried or water-submerged. JET material can be drilled, nailed, glued, welded, sawed and painted – just like wood. But unlike wood and even wood-plastic composites, JET lasts virtually forever with no maintenance. And, if ever disposed, the material can be recycled again and again.

Financially, JRA facilities generate margins that are outliers in the manufacturing industry. Extremely low-cost raw materials, and highly automated processing and manufacturing produce products with competitive performance at lower pricing than competitors can match for a huge and growing market.

The Company has received several inquiries from potential licensees who wish to incorporate this technology into their existing wholly owned operations.



For these licensees, as well as for facilities in which the Company has an ownership position, JRA provides the processing equipment, product designs with associated manufacturing equipment and programs; staff training, operational consulting, marketing and selling of end products to retail, commercial, institutional and government buyers, and complete IT management of inventory and order administration. Each operating company pays JRA a licensing fee, product royalties for ongoing R&D, a commission on all end product sales, and a management fee covering IT administration. JRA also receives a commission on processing and manufacturing equipment sold to facility operators.

Management has developed a five-year plan to build plants of varying sizes around the country – both as standalone facilities and as part of EcoHub operations. Financial projections based on this growth plan are included in this Executive Summary. The Las Vegas plant is expected to be operational in the first quarter of 2016, and the larger facility outside Houston is expected to be operational in the first quarter of 2017, pending award of the contract.

A number of other cities are currently requesting or receiving presentations. JRA is currently working with EcoHub on the response to an RFP from New York City – a potentially huge operation. We are aware of no other company or group that can meet, much less exceed the city's stated environmental goals.

The financial projections in this document are based only on the sales commissions, royalties, and licensing and management fees received from operating facilities. These projections do not reflect the added revenues and assets from the Company's ownership positions in subsidiary operating facilities. As each subsidiary will be individually structured and financed as a majority-owned LLC, it is not feasible to make accurate projections based upon equity benefits. Management believes that these benefits will further improve the Company's balance sheet and cash flows resulting in substantially higher valuation than shown in the summary financial projections in this document.

In order to provide JET Recycling America, Inc. with operational funds sufficient to conduct business until the first revenues are generated, the board has authorized management to offer qualified investors an opportunity to take part in a special offering. Only two million dollars will be raised in the form of convertible promissory notes.

The three year notes will have an interest rate of 8% per annum, with all interest and principal repaid at the end of the term. Principal and accrued interest may be converted into common stock of JRA at \$30 per share. Pre-money valuation is just over \$36 million, providing investors with a 6.22% ownership of JRA under the current fully diluted cap table.

At the end of five years the Company expects to achieve over \$350 million in revenues, generating an operating profit of \$223 million. With the current fully diluted cap table and an 8x EBITDA multiplier, the value per share in JRA is projected to be well over \$1,200. This projection does not include revenues and assets from the Company's ownership positions in subsidiary operating facilities.

It is expected that this type of business and growth will generate great interest in the public markets and from potential acquirers. JRA management will work with our investors, board and stakeholders to chart the most beneficial path to liquidity.

The Company expects to receive the Houston project award within the next 30 days. Once the award is made, this offering will be closed. If the entire two million dollar offering has not been subscribed to, the remainder of the money will be raised at an exercise price of \$75 per share.

## JET Recycling America 5-Year Financial Summary Projections

		2015	2016	2017	2018	2019
Plants in Operation		0	3	9	15	22
Revenues	\$	7,522,612	\$ 32,090,465	\$ 99,036,635	\$ 218,010,808	\$ 354,167,713
Cost of Sales	\$	1,880,653	\$ 7,820,338	\$ 23,485,357	\$ 51,938,682	\$ 82,688,573
% of Sales		25.00%	24.37%	23.71%	23.82%	23.35%
Gross Profit	\$	5,641,959	\$ 24,270,127	\$ 75,551,278	\$ 166,072,126	\$ 271,479,140
% of Sales		75.00%	75.63%	76.29%	76.18%	76.65%
Expenses	\$	2,681,353	\$ 7,635,144	\$ 16,999,596	\$ 31,493,623	\$ 47,997,990
% of Sales		35.64%	23.79%	17.16%	14.45%	13.55%
Operating Profit	\$	2,960,606	\$ 16,634,983	\$ 58,551,682	\$ 134,578,503	\$ 223,481,150
% of Sales		39.36%	51.84%	59.12%	61.73%	63.10%
Taxes	\$	1,184,242	\$ 6,653,993	\$ 23,420,673	\$ 53,831,401	\$ 89,392,460
Net Profit	\$	1,776,363	\$ 9,980,990	\$ 35,131,009	\$ 80,747,102	\$ 134,088,690
% of Sales		23.61%	31.10%	35.47%	37.04%	37.86%
EBITDA	\$	3,231,499	\$ 16,924,912	\$ 58,898,825	\$ 134,705,646	\$ 223,588,293
% of Sales		42.96%	52.74%	59.47%	<b>61.79</b> %	63.13%
5-Year Operating Cash Flow	r					\$ 475,900,988
Capital Expenditures						\$ 750,000
5 Year Free Cash Flow						\$ 475,150,988
Cash Position EOY 5						\$ 388,914,028
Balance Sheet						
Current Assets	\$	2,110,000	\$ 20,272,515	\$ 74,078,136	\$ 201,603,382	\$ 415,431,392
Total Assets	\$	2,110,000	\$ 20,532,337	\$ 74,660,874	\$ 202,078,977	\$ 415,799,844
Current Liabilities	\$	-	\$ 1,064,379	\$ 1,803,653	\$ 3,169,090	\$ 4,518,437
Total Liabilities	\$	2,400,750	\$ 3,804,879	\$ 4,784,153	\$ 3,169,090	\$ 4,518,437
Equity	\$	-	\$ 155,000	\$ 155,000	\$ 3,155,500	\$ 3,155,500
Retained Earnings	\$	(290,750)	\$ 16,572,457	\$ 69,721,721	\$ 195,754,387	\$ 408,125,907
Equity & Liabilities	\$	2,110,000	\$ 20,532,337	\$ 74,660,874	\$ 202,078,977	\$ 415,799,844

#### Valuation Year 5 at 8x EBITDA - \$1,788,706,342

A full business plan has been developed for JRA Las Vegas which details the processes, products, marketing and financial assumptions. This business plan is available to qualified and approved investors upon request.

To receive these materials, please contact Jay Goth, Chief Operating Officer, at 951.676.6509.







Statements in this document contain forward-looking data and results that may not be realized.



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