



# MAYOR & COUNCIL COMMUNICATION

May 9, 2023

Subject: Resolution: Approving Plastic Waste Diversion and Reuse Agreement between the City of Tucson and ByFusion Global, Inc. (City Wide)

Page: 1 of 3

Issue –The attached Resolution approves an agreement with ByFusion Global, Inc. for plastic waste diversion and reuse, and the manufacturing of “ByBlocks” from the diverted plastic waste.

City Manager's Office Recommendation – The City Manager’s Office recommends adoption of the Resolution approving the Plastic Waste Diversion and Reuse Agreement between the City of Tucson (City) and ByFusion Global, Inc.

Background – The City operates a landfill at the Los Reales Sustainability Campus (the “LRSC”). The goal of the LRSC is to move past the traditional landfill model and into an era of regenerative waste-to-asset activities. These are activities that will attract business, create jobs, and redefine the community’s relationship to the resources that people dispose of. Additionally, through its recently approved Climate Action and Adaptation Plan, the City has established goals related specifically to waste diversion: attain 50% waste diversion by 2030 and achieve Zero Waste by 2050. Diverting waste from landfills for recycling or reuse creates circular and local economic development opportunities that also results in environmental and health benefits for the public.

The City currently collects recyclable materials through its single stream residential, commercial, and neighborhood recycling center collection program and delivers the recyclables to a contractor that sorts and, where possible, sells the material to recyclers (the “Recycling Program”). However, most plastic waste cannot be recycled in a manner that is both cost effective and environmentally beneficial. As a result, much of the plastic waste ultimately ends up in a landfill or the ocean.

Single use plastics account for 40% of the plastic that is produced every year. Plastic waste can take thousands of years to decompose. During this process, it breaks down into smaller plastic pieces, microplastics, which are ingested by animals and humans, causing significant worldwide public health concerns.

ByFusion Global, Inc., a Wyoming corporation (“ByFusion”) has developed a unique platform for repurposing any category of plastic waste. ByFusion uses the plastic – without sorting, cleaning, or pre-processing, and without the use of chemicals, additives, adhesives, and fillers – to create a building block that can be used for various types of construction (“ByBlocks”). ByFusion is in the process of expanding the potential uses of these ByBlocks and creating a market for them.

Based on direction from the Mayor and Council following Study Sessions held in April and July of 2021, the City launched a pilot project to evaluate the use of the ByFusion block technology in local public and private projects. The pilot program conducted by the City showed that the public would enthusiastically welcome the waste-diversion opportunity that ByFusion could provide to the community. At the Study Session of January 24, 2023, the Mayor and Council directed the City Manager and staff to work with ByFusion to finalize deal points and return to the Mayor and Council with an agreement that would establish a long-term program with ByFusion for the diversion and reuse of plastic waste using the ByBlock technology.

Resolution: Approving Plastic Waste Diversion and Reuse Agreement between the City of Tucson and ByFusion Global, Inc. (City Wide)

Present Consideration(s) – The attached Resolution approves a Plastic Waste Diversion and Reuse Agreement between the City and ByFusion Global, Inc. (the “Agreement”). Under the Agreement, the City will contract with ByFusion to establish a ByBlock production facility at the LRSC (the “Site”). ByFusion will accept non-recyclable plastic waste collected by City and other non-recyclable-plastic-waste generators in the Tucson community, thus providing City residents with an additional waste-reduction opportunity by repurposing their plastic waste in an environmentally sustainable manner.

Under the Agreement, the City will prepare the Site and will construct a building for ByFusion’s operations. ByFusion will outfit the building to best accommodate its operations and will install its equipment at the Site. ByFusion will later install a facility on the Site to be used for office space or storage. Thereafter, ByFusion will operate the production facility 40 hours per week.

To collect materials for this project, the City will provide bins designated for non-recyclable plastic waste at its four neighborhood recycling centers, and will provide designated collection bins at (1) Fire Station 15, which is located at 2002 S. Mission Road, (2) at the Los Reales Landfill, and (3) at City’s Ward 6 Office. The City will collect this plastic waste and transport it to the Site. ByFusion will accept the waste and use it to produce ByBlocks. Additionally, ByFusion will directly collect plastic waste from businesses in the Tucson Metropolitan Area who contract with ByFusion for this service.

In exchange for ByFusion locating its facility at the Site and diverting plastic waste from the community for repurposing into ByBlocks, City will pay ByFusion a total of up to \$1,000,000 over the 4 year term of the Agreement. As part of the Agreement, ByFusion will provide up to 10% of its ByBlock production to City. City may, at its option, accept fewer ByBlocks and reduce its payments by \$3.00 for each ByBlock that City is entitled to but does not take.

Plan Tucson Consideration(s) – This item relates to a number of Plan Tucson Goals and considerations, including:

- Goal 14. A reputation as a national leader in the development and use of locally renewable energy technologies, water conservation, waste diversion and recovery, and other emerging environmentally sensitive industries.
- Goal 15. A reduction in the community’s carbon footprint, and greater energy independence.
- Goal 21. Sound, efficient, ecological policies and practices in government and in the private sector.
- EC1: Encourage new and existing City infrastructure, facilities, and operations to use best energy efficiency technologies and energy conservation practices and strive for net zero energy facilities.
- EQ1 Strive for a “zero waste” model for solid and hazardous waste through integrated waste management and waste reduction.

Resolution: Approving Plastic Waste Diversion and Reuse Agreement between the City of Tucson and ByFusion Global, Inc. (City Wide)

- EQ6: Promote recycling as well as the responsible disposal of electronics and hazardous waste, reduce other environmentally damaging forms of waste.
- EQ7: Develop practices to reduce utility, fuel, and procurement costs and to improve environmental performance through process, technological, and behavioral changes to demonstrate City leadership in sustainable practices and improve operational efficiencies.
- EC8: Assess and prepare for the effects of climate change on City infrastructure, facilities, and operations.
- G7 Develop and maintain strong partnerships with regional and local nongovernmental organizations, including educational institutions, non-profit organizations, and neighborhood and citizen groups.
- G8 Support a representative and balanced multi-jurisdictional, regional approach to short-term and long-term planning.

Financial Considerations – Pursuant to the Agreement, the City will prepare the site at the LRSC and construct a building to reasonably meet ByFusion’s operating requirements and will pay ByFusion for its services as described herein. The projected cost to prepare the Site and construct the building for ByFusion’s operations – a building the City will own – is approximately \$2.4 million.

Legal Considerations – The City Attorney’s Office has prepared the attached Resolution, and has approved the Agreement as to form.

Respectfully submitted,



Michael J. Ortega, P.E.  
City Manager

MJO/MC  
City Manager’s Office

Attachment: Resolution