A Message from Reuse Waste, Inc: "Stop Overfilling the Bathtub!" August 22, 2019

You are looking at your bathtub outside of the bathroom through a locked glass door. The tub is almost full of water, a couple inches from the top. And the tub faucet is on at full flow rate. And you can't unlock the door. Panicked? Eh, it's just a bathroom, we can scrap it, re-model, and probably build a nicer, newer bathroom.

Now, let's change that bathtub to the planet. And let's change the water to greenhouse gases (GHG). And the locked door becomes all: cultural mindset and practices, international, national and local policy and laws, and big business influence. Panicked now? How do we re-build this after the overflow does irreparable damage? Obviously we can't. So we are left with two things to do:

TURN OFF THE FAUCET and LOWER THE BATHTUB LEVEL (of GHG).

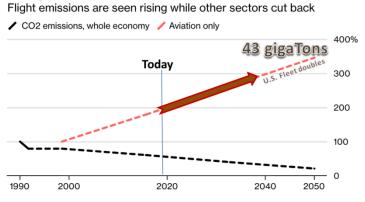
Let's classify GHGs into two classes for the sake of this point.

Class 1: Current levels of GHGs are the water in the bathtub. There are GHGs that are naturally released due to material already in the biosphere like water and plant life. There are also GHGs that are produced from man-made processes that are at this time already in the biosphere. The coal and crude already excavated, the trash, and more... We don't have to be happy that they are here, but let's say all of these are why the level in the bathtub is high.

Class 2: The faucet of GHG. These are the continuing efforts to mine underground resources and bring them to the surface. They add to our scenario because had they been left alone, they would not contribute to our GHG levels. Also included in the faucet is the rising amount of waste from everyday products without full attention to their end-of-life emissions as they sit and decay in one of our many landfills. Making matters worse, there is an increase in transportation GHGs as the number of automobiles grows and the use of aircraft continues to increase. These all add to the faucet flow rate of GHGs into our atmosphere.

And the picture grows more dire over the next couple of decades. While there are efforts to reduce emissions from many areas now, the aviation industry has not been able to identify a viable solution which will reduce the GHG of fossil-based jet fuel. Today, airplane emissions account for 11% of all U.S. CO₂ transportation emissions and the U.S is responsible for nearly half of aircraft emissions in the world. But all sources

Divergent Paths



indicate that the aviation portion of the faucet will continue to grow. By 2037, air travel passengers are expected to double. And by 2050, the U.S. will have doubled its fleet size from current numbers and there will be a 7x growth in aviation pollution worldwide.

But spokesman and COO of Reuse Waste, Inc. (RUWI), Greg Martinsen, says that RUWI is working on that elusive solution. "At RUWI," Martinsen says, "we will work with city municipalities to take their waste, that otherwise would go to a landfill, and process it into Renewable Jet Fuel (RJF)." He continues,

"this does two things: first we can stop that waste from generating greenhouse gases AND we reduce the requirement for fossil based transportation fuel."

RUWI will use proprietary and patented processes that gasify the waste at extremely high temperatures (> 1,500° C). At this temperature, RUWI can convert any waste that the city has to offer. "This means we don't have to spend additional money and resources to sort the waste," says the COO. "We take it all and convert the organics into fuel and we can produce LEED certified building products with the remaining molten materials." This is important because RUWI plans to use their unique processing plant to keep RJF prices close to fossil fuel parity by adding several additional revenue streams to their financial model.

And the impact of their RJF could be huge. Right now, FAA and ASTM standards allow for commercial jet fuel to be up to a 50/50 mix of crude and renewable sources. A completed RUWI process produces RJF that has approximately 80% renewable content. So once the blending occurs, the impact of RUWI's RJF will be a 40% reduction in GHG from any aircraft that uses it. At today's rates, a single jet aircraft trip from Los Angeles to New York produces more GHG than one person produces in a year. That amount of GHG for one flight is staggering but made worse when considering that GHG emissions are more damaging when released at higher elevations in the atmosphere.



RUWI is on the fast track to make their impact. They have two projects planned, Chicago and Memphis with over \$800M in planned construction funding. But as Martinsen says, "there is a need for a RUWI plant in every city that has a major metropolitan transportation hub." RUWI can make a significant impact on the overfilling bathtub scenario: reduce the GHG from our trash (in the bathtub) and lower the demand for more crude-based fuel (the faucet).

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Website: <u>www.ruwi901.com</u>