# E Fiberight

Next Generation Recycling

www.Fiberight.com

# Your Trash is a Resource

#### **CONVERTING SOLID WASTE TO ENERGY**

Buried in a landfill or burned in an incinerator, valuable materials become wasted resources.

#### Recyclables

Only a little over 30% of households in Maine actively recycle. That means tons of recyclable materials like are thrown out with the garbage everyday.

The new Fiberight facility in Hampden will recover those materials and ensure they are recycled into new products rather than being buried in a landfill.

#### **Organics**

Almost half of our household waste is organic material like egg shells, left over vegetables, and fruit. After it's thrown away, food waste decomposes and produces gas and other byproducts like sugars which can be harnessed as a source of energy.

At Fiberight, we capture and use those resources to make green energy products like biogas or clean natural gas (CNG) that can replace diesel fuel.



# The Fiberight Process

#### **CLOSING THE LOOP**

#### Municipal Solid Waste is delivered.

- A First sort removes unsuitable waste, such as inert materials and large bulky items
- A state of the art separation system recovers curbside-type recyclables from food waste and other organics in the waste stream

#### What's left after sorting is pulped and converted.

- Once the recyclables are removed, the rest of the waste is pulped and remaining plastics are separated from pulped organic materials
- The organic pulp is washed to remove contaminants and dirty water is sent to our anaerobic digester to generate biogas and clean the water
- Clean pulp may then be used to make new paper products, biomass fuel, or converted into sugars
- These liquid sugars may either be processed into biogas by our anaerobic digester or fermented into biofuels

Once renewable fuel production is complete, a digestate fiber is available for compost or to be pelletized for energy recovery.



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# The Equipment for Back End Processing

#### WHAT DO THEY DO?

#### **Pulping:**

Fiber not removed as mixed paper by the fiber optical sorting system, rejects from the container optical sorting system and rejects from the OCC Screen are conveyed to a pulping drum. The pulping drum is a rotating drum that agitates and shears the materials with heated water to produce a "biomass pulp", prior to being fed to a washing tunnel. Pulping drums are successfully deployed at mixed waste processing plants in Europe, and have been shown to experience high uptime and low maintenance cost, while effectively separating cellulose and biomass from inorganic materials.

#### Washing:

Pulped and screened organic "biomass" is introduced into the counter-flow washing tunnels. The washing tunnel is used to separate soluble organics from the biomass pulp and fines stream, as well as to screen and separate small plastic and other contaminants not screened by the drum pulper. Clean cellulose is then extracted from the wash tunnel, thickened in side hill screens and further dewatered to approximately 50% moisture content in a screw press. This product is now ready for sale either as cellulose market pulp, cellulose product (such as insulation) feedstock, or to be blended as an engineered fuel.

# It's on the way!

## The Pulper in Assembly



The Pulper in transit from Ireland



### The Tunnel Washer in Assembly



### The Anaerobic Digester is in Brewer



# Plant Construction Update

#### WHERE WE ARE

#### Current

- Sargent has completed interior excavations
- Concrete contractor is mobilized to site and has commenced work
- Southwest corner left open to allow access for pulper installation

#### 30 - 60 day window

- Back-end equipment arrives on site
- Completion of concrete slab and pits in MRF and tip floor area
- Installation of odor control ductwork commences
- Sprinkler system installation commences
- MRF equipment being shipped to site to enable expeditious installation in sections once concrete areas are cured and ceiling installations complete above work areas

