

Understanding Packaging Innovations and Materials Management in California

December 12, 2013

Agilyx is a recycling and alternative energy company that uses patented, proven and commercially viable technology to convert difficult-to-recycle waste plastics into synthetic crude oil through a process that is scalable, versatile and environmentally positive.



Cleantech leader on track to commercialization

- Founded in 2004 and based in Beaverton, OR
- First commercial plastic-to-oil process; 3 commercial plants

Cutting-edge plastic-to-oil technology

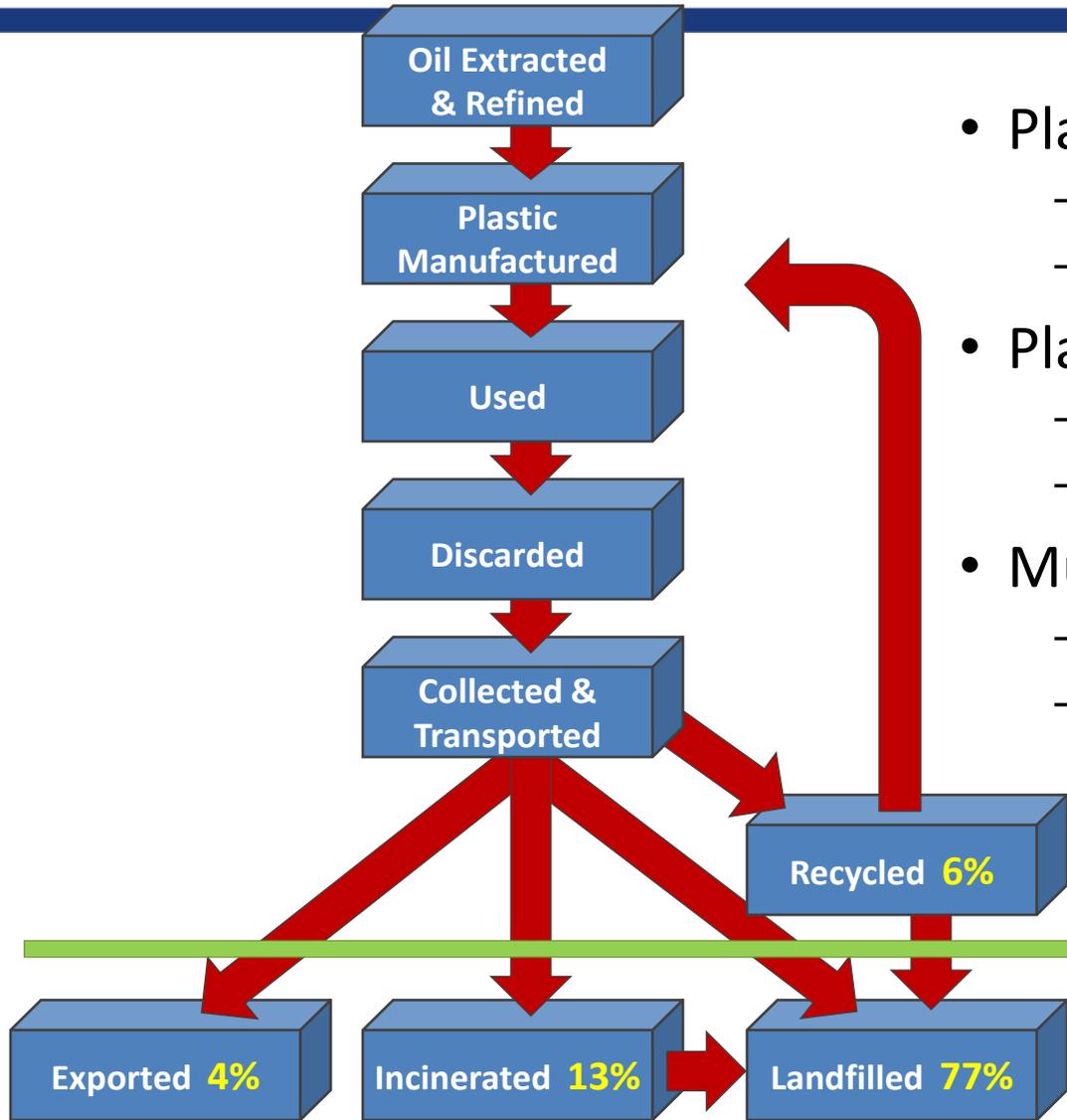
- Protected with 6 issued and 11 filed patents
- Processed over 6 million lbs. of waste plastic
- Produced over 600,000 gallons of synthetic crude oil

High-quality, drop-in product

- Produces a synthetic crude oil ready for refining
- Light, sweet, and completely distillable with no residue

Supported by leading investors and partners





- Plastics – difficult to recycle
 - Commingled resins
 - Too much contamination, or both
- Plastic Production
 - 8% of oil supply used to make plastics
 - 116 billion pounds manufactured/yr
- Municipal Solid Waste (MSW)
 - 12% is mixed waste plastic (mass)
 - 25% is mixed waste plastic (volume)



Over 100B pounds annually



Industrial Waste



Recyclers & Large Waste Generators

MRF's & Transfer Stations



Municipal Waste

Feedstock

- Does not compete
- Creates new revenue

Existing Infrastructure

Difficult-to-recycle plastics typically:

- Increase operating and handling costs
- Accelerate landfill airspace depletion
- Increase manufacturing and consumer costs



Agilyx Technology

- Put system where the plastic is

Lowest Level of "Economic Aggregation"



Existing Refinery or Onsite usage/refinement

- Do not re-invent
- Do not compete

Existing Infrastructure

Offtake



Reduces waste streams by processing...

- Plastic destined for landfill (complements rather than competing with existing recycling efforts)
- Commingled (most resin types can be mixed)
- Dirty and/or contaminated (food, fiber, dirt and grit)



Produces ASCO[®] (Agilyx Synthetic Crude Oil)

- How good is the product? Excellent as a feedstock to manufacture a variety of petroleum products, notably transportation fuels, lubricants and... plastics!
- Chemically, it can be found in the SCRAP[™] (Low Sulfur, High Calorific Value, Low Residuum, Excellent API Gravity and PONA characteristics)

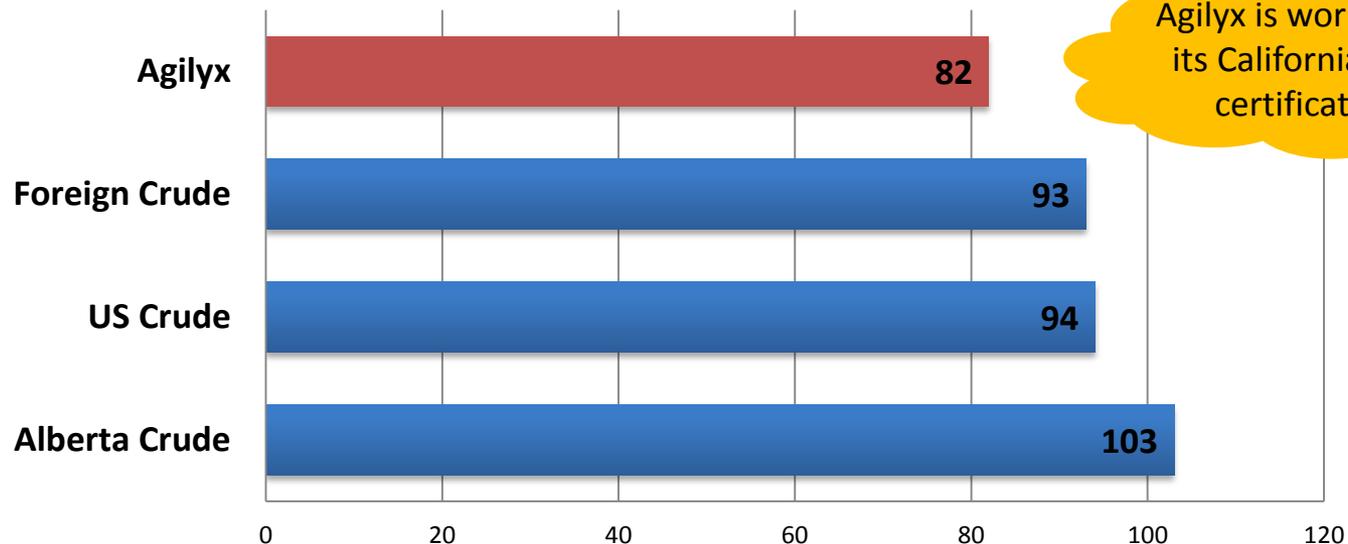


Creates empowered communities by...

- Creating local “Green Collar” jobs
- Creating a new source of domestic energy
- Environmental stewardship through landfill diversion and realistic approach to plastic packaging waste

- Agilyx bridges two life cycles that are not generally connected (plastics, fuels)
- We produce high-grade crude oil without repeating the impacts of crude oil extraction, thus providing a “next life solution” and complementing traditional recycling
- Compared to incineration the Agilyx solution is five times more efficient in terms of energy efficiency, carbon intensity, resource productivity and revenue maximization

Carbon Intensity: Crude Sources
gCO₂E/MJ





High Value Crude Oil

Agilyx technology produces a clean, high quality crude oil feedstock generally used in transportation fuels and sold to refineries at premium market prices.

Higher and Better Use

Difficult to recycle plastics normally destined for the landfill and “low value” plastics previously exported are excellent feedstock for the Agilyx technology ensuring better environmental and economic use.

Margin Expansion

The Agilyx solution creates a paradigm shift in waste handling by replacing certain disposal costs with a new revenue stream in the form of crude oil. The corresponding financial impact enhances the value proposition from both a cost reduction and incremental revenue standpoint.

Landfill Airspace Preservation

Most plastic waste utilizes a disproportionate amount of landfill airspace compared to tipping fee revenues due to compaction ratio inefficiencies. Removing plastics from the landfill can potentially preserve valuable airspace and promote greater utilization opportunities and reductions in landfill operating cost.

Favorable Carbon Impact

The Agilyx process is a “next life solution” for plastics that generates a significantly reduced carbon impact by comparison with traditional methods of crude oil extraction. Crude oil produced by Agilyx is a great fit with most Low Carbon Fuel Standards.

Local Job Creation

Agilyx technology helps create green technology jobs in the local communities.



Kevin DeWhitt, Founder & Chief Technology Officer
kdewhitt@agilyx.com +001.503.217.3167
www.agilyx.com