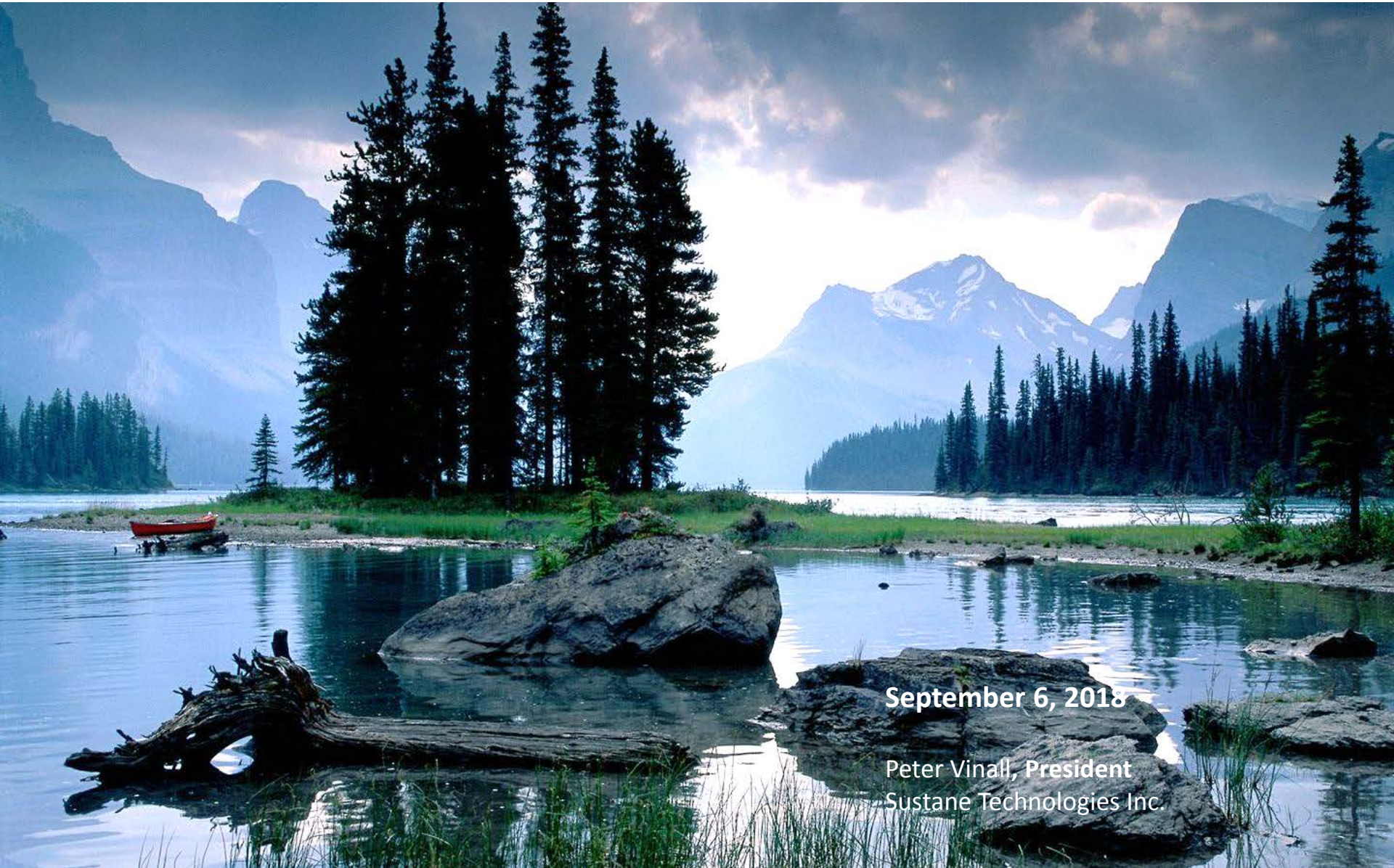


*Leading the world to **Zero Landfilled Waste***



September 6, 2018

Peter Vinall, President
Sustane Technologies Inc.

About Sustane



- ❖ Nova Scotia company that has developed and is now deploying disruptive technologies that deliver near complete separation and recycling of municipal solid waste (MSW)
- ❖ Our mission is to eliminate landfilling worldwide, delivering a huge environmental benefit
 - Patent granted in USA, European Union and others + extensive trade secret Intellectual Property (IP)
 - Main products are biomass pellets, synthetic diesel (internal use and sales), recyclables (metals, plastics)
 - Nova Scotia Department of Environment formally recognized the Sustane process as recycling/diversion
 - Chester, NS commercial project in late stage construction with start-up in Q4 of 2018. Permits granted.
 - Strong pipeline of projects due to intense interest across North America and globally. Why?
 - ✓ Reduces ongoing waste disposal costs
 - ✓ Removes expensive legacy costs of landfilling over time
 - ✓ Delivers a huge environmental benefit
 - In addition to MSW, well positioned to solve low value plastics challenge by reforming into diesel fuel



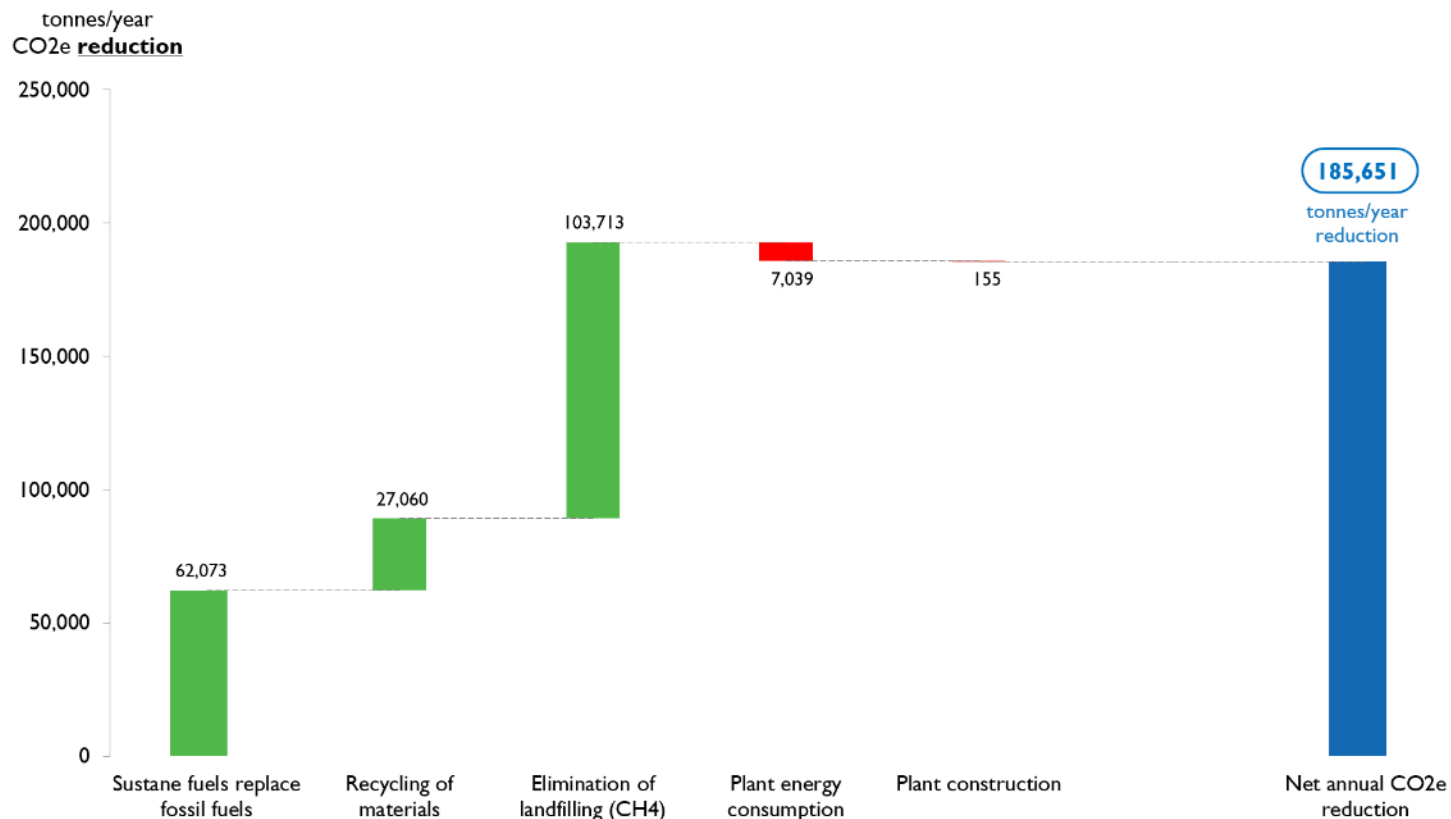
Near complete separation is a game changer

- ❖ **NOT incineration**
- ❖ **NOT gasification**
- ❖ Process makes clean fuel products and recyclable materials
- ❖ Processes are low impact, thermo-mechanical in nature (relatively low temperatures and pressures)



GHG lifecycle analysis (Chester, NS at full capacity)

Lifecycle Greenhouse Gas - Net Impact (70,000 tonne/yr MSW, Sustane vs Landfilling)



Equivalent cars permanently removed from roadways = 41,256



Enviro-access
Carbon Audit

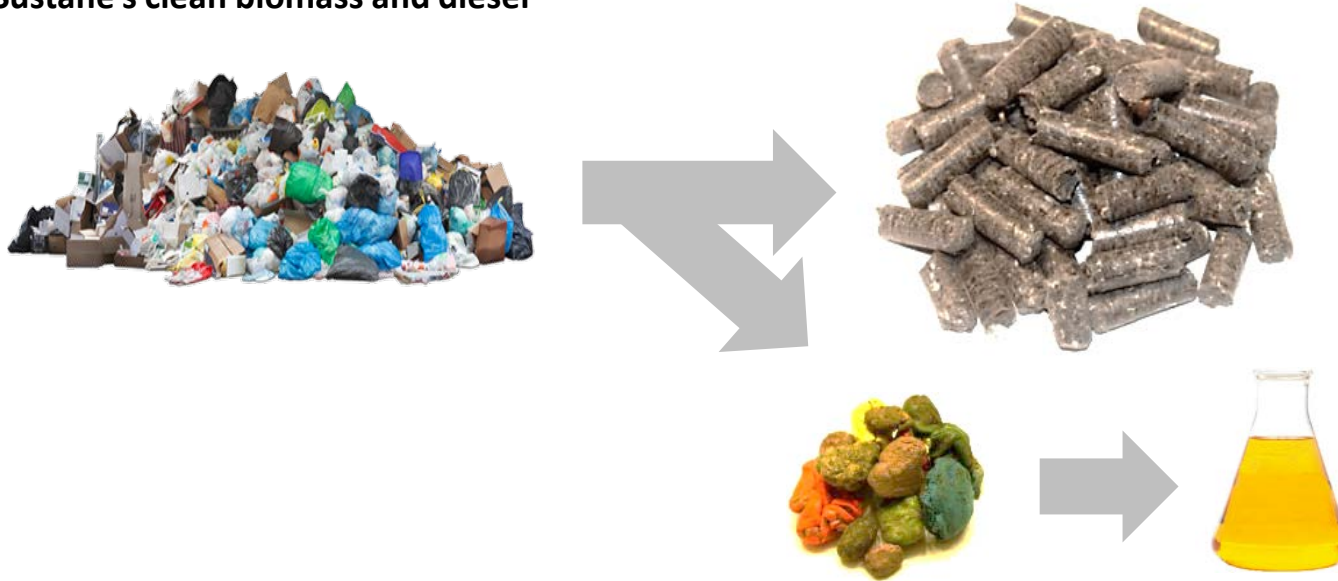
www.enviroaccess.ca



Sustane Technologies

The breakthrough... Separation → Purity → VALUE

Sustane's clean biomass and diesel



- ❖ Clean biomass fuel
- ❖ High efficiency combustion ($> 2x$)
- ❖ High value

Previous best biomass fuel from MSW



- ❖ Dirty fuel
- ❖ Low efficiency combustion
- ❖ Low value

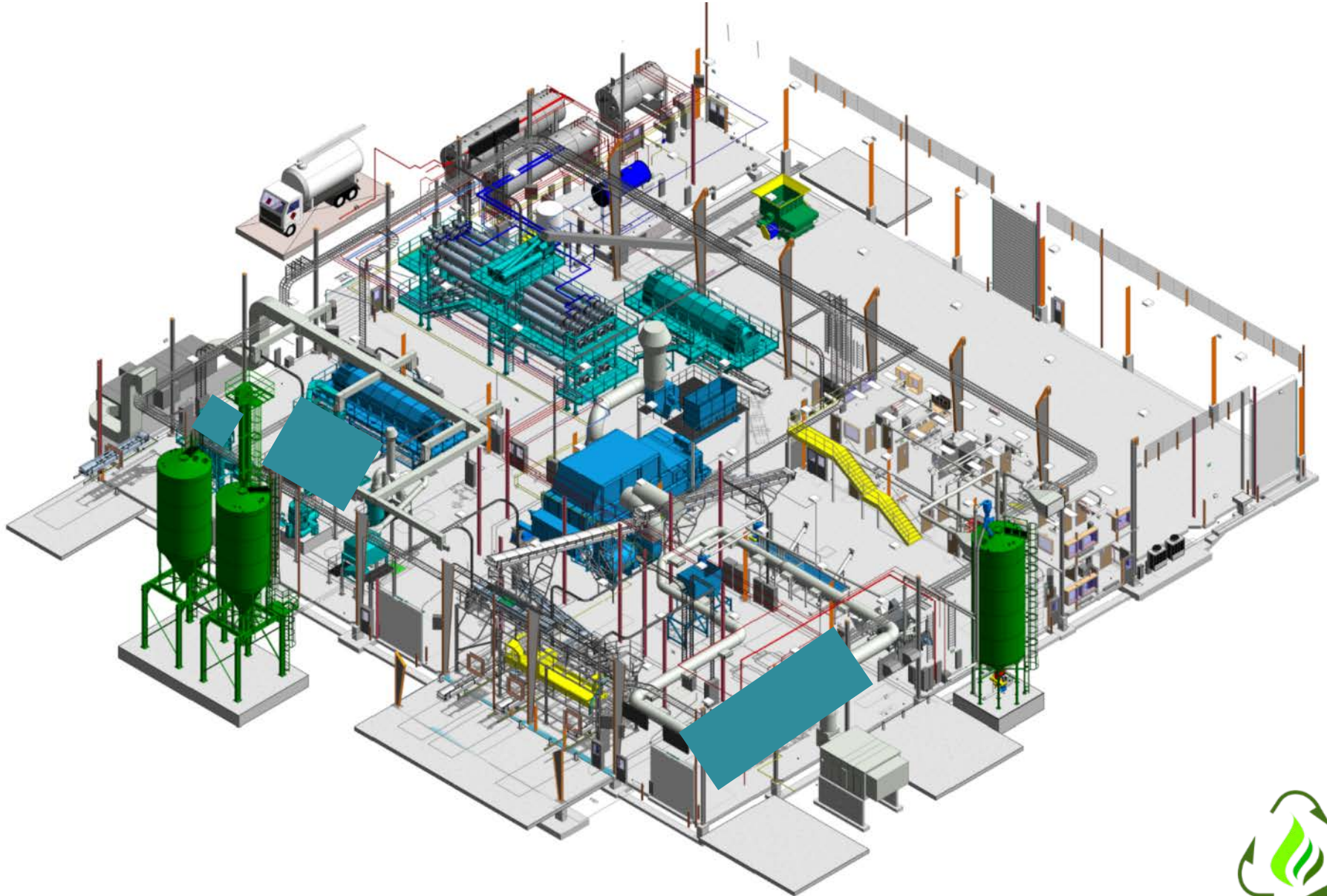


Chester commercial facility

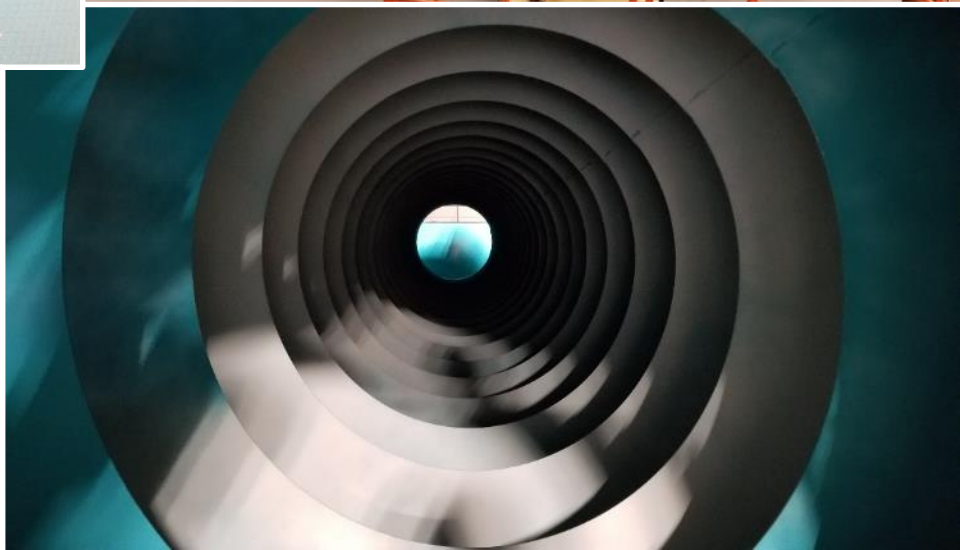
- ❖ 70,000 tonne per year capacity
- ❖ MSW supply secured (20 years)
- ❖ Broke ground Q2 2017, start-up Fall 2018
- ❖ Equipment procurement and fabrication 90% complete
- ❖ 25 Employees (many higher skills)
- ❖ Energy self-sufficient (25% of plastic derived diesel)
- ❖ Pellet offtake signed with power utility
- ❖ Diesel offtake contracts already signed



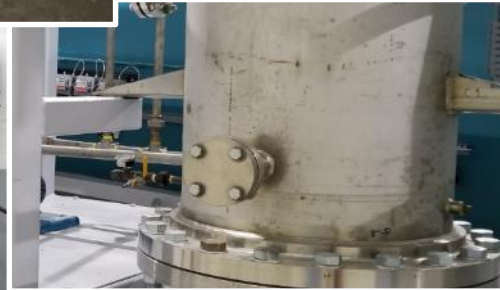
Chester commercialization project is nearing startup!



Equipment (1)



Equipment (2)



Equipment (3)



CSWM Project

- ❖ Sustane proposes to develop, construct and operate a facility at Sustane's cost, adjacent to the Comox Valley Waste Management Centre
- ❖ Process performance is assured as the project will be proven in our Chester, NS facility before roll-out at CSWM
- ❖ Project objectives:
 - ✓ Reduce disposal costs for CSWM and its stakeholders
 - ✓ Process up to 70,000 tonnes of MSW and divert over 90% away from landfill (extend landfill life at least 10 times)
 - ✓ Reduce net greenhouse gas emissions (GHG) by ~ 180,000 tonnes per year (equivalent to removing 40,000 cars from the road permanently)
 - ✓ Produce 35,000 dry tonnes of carbon-neutral recovered biomass pellets. These pellets will be consumed by local industry and can replace fossil fuels.
 - ✓ Produce over 3 million litres of clean, green diesel from the MSW derived plastics
 - ✓ Recover metals and other plastics for recycling
 - ✓ Create 25 permanent skilled jobs in the local community



CSWM Project



- ~ 5Ha land needed
- Zero leachates
- Greatly reduced site odour and animal issues
- Extremely low emissions (permits in NS)

Key take-aways

- ❖ A new option for MSW that will be proven at Chester, NS before year-end 2018
- ❖ Zero capital for CSWM. Sustane owns, operates in exchange for secure supply of MSW.
- ❖ MSW diversion levels exceed 90% = 10 X landfill lifetime extension
- ❖ Flexibility for energy product outlet and customer off-take discussions underway
- ❖ Phenomenal greenhouse gas attributes
- ❖ Additional savings with potential to add volumes from other areas regions

Contacts:

Peter Vinall
President
peter.vinall@sustanetech.com
(604) 358-0600

Kevin Cameron
VP Sales and Gov't Relations
kevin.cameron@sustanetech.com
(902) 401-0214



Questions?

