



Take Aways - Pre -Conference Workshop on Public Sector Planning and Implementation

- Projects take a long time
- Have constant communication with all parties involved
- Having a site it key
- Recycling should be part of the strategy



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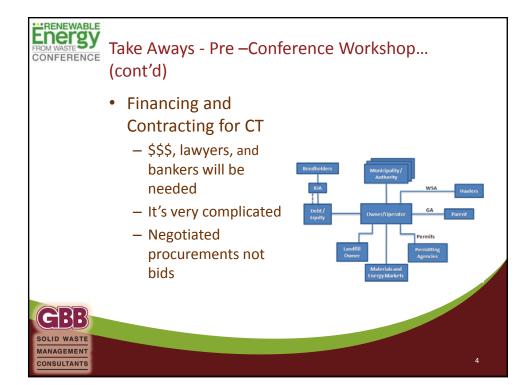


Take Aways - Pre - Conference Workshop... (cont'd)

- 2-step RFQ then RFP preferred procurement approach
- Need involved and committed elected officials
- Understand risks, allocate them to shoulders that can bear the weight
- Having an Authority helps create space with the politics and election cycles



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Take Aways – Main Conference

- Landfills too cheap
- Renewable energy not worth enough
- · Oil and recycling markets way down!
- Circular economy is putting emphasis on recovering value



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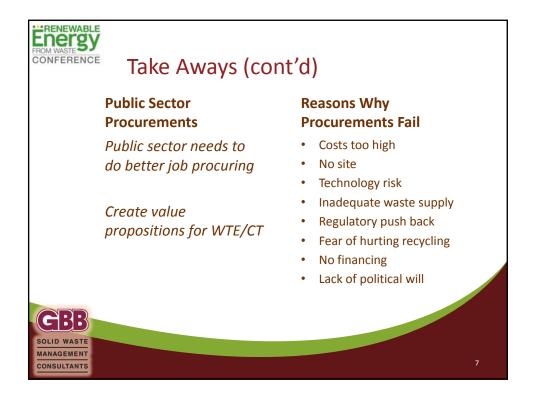


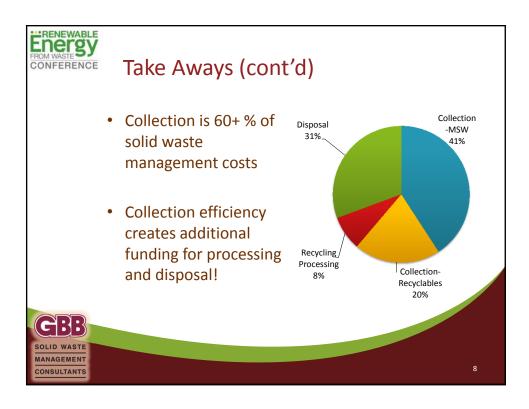
Take Aways (cont'd)

- Policy failure in US to cause more REW
- DOD very involved in waste-to-fuels
- Watch Edmonton- Enerkem, Indian River-Ineos, Reno-Fulcrum, and Tees Valley/Air Products-Alter NRG
- In poor economies, use MSW to provide energy to move water to grow food



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- · Infinitus-Montgomery, AL Temporarily Closed
 - It is an economic burp, not a technical one
 - Stay tuned they are trying very hard to work things out!
- AD opportunity to make biogas for your fleets
- What should we call it? RDF, EF, SRF, or eRDF
 - Let's just make it and utilize it!
- Cement manufactures need lots of fuel and can use if prepared properly
 - No residues...stays in cement!



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Take Aways (cont'd)

- Miller-Coors is almost at Zero Waste to Landfill!
 - Extensive waste reduction (85%) and separations to do more recycling
 - Remainder to Waste to Energy
 - Change started over 10 years ago and now have
 ZWLF at 7 out of 8 facilities
 - 2020 goal of landfill free status



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- The purple "Energy Bag" pilot project for plastic film to oil; see:
 - http://analysis.renewable-waste.com/projectanalysis/dow-chemical-and-agilyx-join-forcesconvert-plastics-oil
 - http://www.dow.com/energybag
 - http://www.citrusheights.net/295/Energy-Bag-Recycling



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ERENEWABLE EROM WASTE CONFERENCE

Project Status - Solid Waste Authority of Palm Beach County, FL



Source: SWA of Palm Beach County

- Able to divert 1.04 million tons of waste from landfill per year (3,000 TPD)
- Supplies 86,000 homes with "renewable" energy
 - In FL, 1 WTE MW counts as 1 Ton recycling
- Built, Owned, Operated by Babcock & Wilcox
- Construction price: \$668 million
- O&M cost: \$20.5 million annually
- Advanced emissions controls, ferrous and non-ferrous metals recovery
- Commercial ops June 2015

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- 8 years to get from planning to commercial operations!
- Proven technology works!
- Permitting WTE and CT in Florida
 - Wouldn't it be nice if other states followed Florida's example!



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Take Aways (cont'd)

- Since 2002, USDA Loan/Grant Program has funded over 10,000 projects with \$3+ billion in funding
- Loan/Grant to continue for another four (4) years – approx. \$800 million per year
 - See:
 http://www.usda.gov/wps/portal/usda/usdahom
 e?contentidonly=true&contentid=2015/02/0034.x
 ml
 - Rigorous preparation and process to obtain funding and be part of the program

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- ISRI to change recycled paper stock grades in 2016
 - Sorted clean news
 - Sorted residential paper
 - Sorted mixed paper
 - Hard mixed paper
- Stay tuned about one-bin mixed waste processing projects for residential waste



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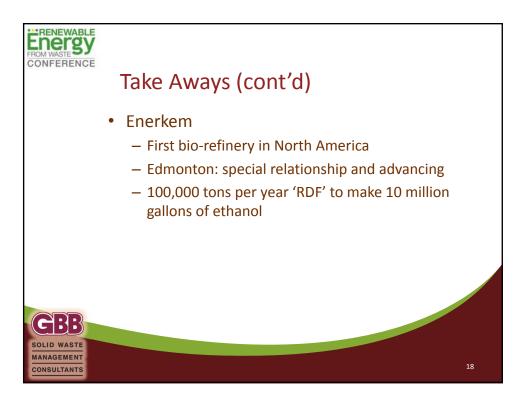
Take Aways (cont'd)

- Vadyxx example of private investment for new CT
 - \$28 million invested for plastics to oil
 - Commercial plant started up and now fixing oxygen leak
 - 20,000 tons per year polyethylene wire chop to make 100,000 bbls per year of diesel/naptha



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- MBT and CT is also coming to America...from Spain!
 - Abengoa
 - Valoriza Environmental Services
- North American MSW to fuels that can be shipping around the world to replace coal
- Reedy Creek Harvest Power AD project
 - Very cool!



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Take Aways (cont'd)

- Federal and state policies are misaligned with renewable energy and environmental goals
- Lots of goals and objectives to meet unfunded!
- It's not the money, it's the money!



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