**Zero Waste SWATeam**

Attendees: Tim Stark (Faculty & Chair), Leon Liebenberg (Faculty), Robert McKim (Faculty), Thurman Etchison (Staff), Aaron Finder (Purchasing), Maddy Liberman (Student), Manying Zhang (Student), Julija Sakutyte (Clerk), **David Rivera-Kohr (Energy SWATeam, Student)**
Date: 3 December 2019
Time: 11AM-1:30PM

1. Zero Waste SWATeam Objectives Review
	1. Edited ZW\_Objectives\_Review\_3DEC (ZW\_Objectives\_Review\_4DEC will be attached on iCAP Portal).
2. David Rivera-Kohr
	1. Ideas for biogas production:
		1. Constructing a siphoning system on manure tanks
			1. Pros: Cheapest option
			2. Cons: Only animal waste, methane enters the atmosphere.
		2. Anaerobic Digester
			1. Pros: Can use food waste, animal waste, and other sources. Can target the largest methane producing entities.
			2. Cons: [Feasibility study](https://icap.sustainability.illinois.edu/files/project/197/Anaerobic%20Digester%20Feasibility%20Study.pdf) in 2014 determined that the anaerobic digester was too costly and not realistic.
	2. Ideas for biogas use:
		1. Use immediately on-site
			1. Pros: Can meet heating needs on-site; excess biogas can be used for other needs (transportation, electricity generation, etc.).
			2. Cons: ?
		2. Transporting biogas to Abbott Power Plant
			1. Pros: Can be used equally to Natural Gas,
			2. Cons: Need to update pipeline in order to do so, which is costly (high short-term capital investment).
		3. Upgrading and compressing into CNG.
			1. Pros: Long-term benefit and reduction in methane emissions (from decomposing food and animal waste).
			2. Cons: High initial capital cost.
	3. Dining uses aerobic digesters and pays 9 cents/gallon of waste.
	4. Commercialize the pipeline to involve community waste.
	5. College of ACES has been contacted to see if there is room to collaborate.
	6. All six SWATeams would likely be involved to at least some capacity.