

Spring POWER Meeting Minutes

HLB Gross Collins – 3330 Cumberland Blvd. - Atlanta, GA

Thursday, April 21, 2011 – 12:00pm – 6:00pm

Refer to the Registration page for the meeting attendees.

Lunch, Introductions and Welcome (*Holly Elmore - Founder / CEO of Elemental Impact (Ei)*):

Bold American Catering provided catered lunch preceding the meeting. The meeting began at 1:00pm.

POWER Overview (*Scott Seydel – Ei Impact Advisory Council Chair*):

Scott Seydel provided an overview of Perishable Organics Waste to Energy Recycling (POWER). Mr. Seydel discussed the focus of POWER and indicated the need to engage all the various technologies available toward POWER's goals of waste to energy. Mr. Seydel highlighted similar work being done in NYC including Starbucks cups recycling to pizza boxes. Despite "neighsayers" along the way, significant progress has been made in NYC including discussions with McDonalds. Mr. Seydel noted the next National Restaurant Association meeting May 21-24 in Chicago.

Zero Waste Zones Update (*Holly Elmore – Zero Waste Zones Director and Ei Founder*):

Holly Elmore provided an update on Zero Waste Zones (ZWZ) in Atlanta. Susan Grider Montgomery was introduced as the Interim ZWZ Program Director. Recent ZWZ participants include: 1) City of Atlanta, 2) Georgia Tech, 3) Atlanta Community Food Bank, and 4) Woodruff Arts Center. Holly noted the 2 year press anniversary of the ZWZs and the Turner Building (133 Luckie Street)'s landmark success as the first full office building to adopt organics collection. Waste Management in a recent press event announced its commitment to collecting organics. ZWZ are receiving great attention at the ZWZ blogsite. Holly introduced Chris Moyer with the National Restaurant Association (NRA) Conserve Program. The NRA recently announced collaboration with Ei and ZWZ. Targeted for this summer, ZWZ may evolve to Sustainable Action Zones (SAZ). SAZ are staged to expand nation-wide and the development of a metrics tool is in process. Metrics may include: environmental impacts, ROI and possibly health. Currently underway are the development of training/education programs and NRA political advocacy.

Bio-Char Technology Presentation (*Dr. Sudhagar Mani - UGA*):

Dr. Mani provided an overview of Bio-Char, an ancient practice worldwide, also associated with new directions in fuel and soil development. Dr. Mani discussed the high energy values of Bio-Char and its soil enhancement applications. As an energy source, Bio-Char is associated with a good deal of emissions as well as deforestation. Current work is looking to minimize both of these issues. The International Bio-Char Community is currently working at four levels: energy production, soil improvement, waste management and mitigation of climate change.

The discussion included a question on capital costs from Scott Seydel and a discussion of economic data surrounding the uses of the oil (also called "liquid smoke") produced in the Bio-Char development process. Dr. Mani noted that efforts to evaluate aggregate environmental costs and benefits via a full life cycle analysis of Bio-Char and its by-products are underway. Wayne King, U.S. Composting Council Past President, inquired about related research at UGA in corn and vegetable matter – further research was needed in this area. Jean Pullen with the City of Atlanta inquired about the use of wastewater or sludge – this work had not been pursued to date due to issues with mineral content in the sludge. The Furco project was mentioned.

GREASE Introduction (*Anne Blair – Southern Alliance for Clean Energy*):

Anne Blair introduced GREASE (Grease Recycling & Energy Alternatives Solutions for the Environment). Anne indicated the work that the Southern Alliance for Clean Energy (SACE) is doing in the area of spent grease recycling. SACE, a non-profit, has developed a for-profit venture called Clean Energy Biofuels which has been in operation for four years. Anne reviewed GREASE membership, a draft mission statement, and the two planning meetings that have occurred to date. GREASE's future directions include addressing animal fats and plant oils as by-products of the food service industry.

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The discussion included mention of the energy tax credit status and the closing (and recent re-opening) of Bulldog Biofuels. The discussion focused on the need to make spent grease developments “make good business sense.” Down-to-Earth was cited as one such facility. The discussion included the need for more research on “brown grease” and its potential uses in energy and/or animal feed. Participants also noted there is much inconsistency in the market; some facilities are paying to have spent grease collected and some are donating it to SACE. Some private data exists around Supply and Demand considerations for spent grease but so far this information has not migrated to the public arena. Potential discussion for the next GREASE meeting may include a discussion of health benefits.

Sustainable Food Court Initiative (*Doug Kunnemann - SFCI Co-Chair & Business Segment Director at NatureWorks*):

Doug Kunnemann talked about the opportunities and challenges associated with the Sustainable Food Court Initiative (SFCI). The next SFCI meeting is April 25, 2011. Within a Food Court environment there are multiple contractual obligations involving tenants and landlords, franchisees and franchisors. The goal is to establish partnerships with the property managers and owners. Developments to date include partnership discussions 1) with Simon Properties / Phipps Plaza, 2) at the Hartsfield-Jackson Atlanta Airport and 3) at Discover Mills /Simon Properties.

The discussion that followed included questions from Scott Seydel surrounding Food Court vendors and their use of products made from recovered materials as well as questions from Anne Blair regarding lessons learned from the project involving the US House of Representatives’ cafeteria in Washington, DC. In general, the group agreed that for SFCI to be successful, the concept would need to “make good business sense” rather than be government mandated. Transport and processing proximity issues are important to consider. Holly clarified that the “commercial sector” includes the “educational sector” and such players as Georgia Tech. The group also acknowledged that solid waste haulers may experience a short-term revenue decrease as recovered food products are diverted and that important features for them will be long-term relationship development as well as diversification of their business models.

Viable End Markets for Compost (*Wayne King - US Composting Council Past President*):

Wayne King shared his 16 years of experience in composting and diverting food assets from landfills to organics. Wayne talked about recent changes in the business paradigm that include new markets in the environmental arena including green roofs development, compost blankets and sustainable plantings. Wayne noted the importance of developing a Soils Act to address stormwater infrastructure and health/safety concerns. Wayne noted the biggest challenge in Georgia as impervious surfaces (roadways, parking lots, building tops etc.). Because of its high percentage of impervious surfaces including clay soils, Georgia loses much of its rainfall via runoff to neighboring states including Alabama and Florida. Engineered soils, roof gardens, bioretention areas, pervious parking and rain gardens are so important because they help address the impervious surface/run-off concerns in Georgia.

The discussion included the need to develop a Soil Management Plan at the City, County or State levels. Also needed is a Soils Act to address both Health and Safety concerns. This is particularly important for Urban Gardeners. Wayne further noted that soils can be engineered for permeability, fertility and stability. There was some discussion about mixing food trimmings and other inputs. The group noted that in general the carbon side is in short supply. The group also noted that in Atlanta in particular the focus needs to be on the “soil-water connection.”

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Obtaining an Anaerobic Digestion Permit (*Daniel Rickenmann - CEO W2E Organic Power*):

Daniel Rickenmann presented the development history, challenges and successes associated with his Anaerobic Digester (AD) at W2E Organic Power. Daniel talked about the identity of those in the waste to energy business as waste processors, energy producers as well as R&D laboratories. He noted the importance of the physical siting of his facility to mitigate transport costs and concerns. He discussed four types of inputs that he processes: food scraps, brown grease, liquid grease and yard waste. His business model does not include analysis of liquid grease since there are so many competitors in that market. The products he sells which include: harvested methane gas, a liquid soil amendment to farmers, a solid soil amendment to farmers and electricity. He sells one hundred percent of the electricity generated. To date, he has not yet found an asphalt plant interested in harnessing the thermal energy he produces. Within a 20 mile radius from his facility, his plant is processing only about 7% of the waste. There are huge opportunities in this area. Mr. Rickenmann believes that the low tipping fees and agricultural base in the Southeast may equate to more opportunities. His goal is to develop plants in NC, TN, GA, TX and LA.

The discussion included the need for professional consultants to secure Power Purchasing Agreements (PPAs). The group discussed that the facility build-out included about 42 jobs but the actual running of the facility includes 3 white collar jobs. Lessons learned by Daniel Rickenmann include: 1) no short cuts, 2) allow plenty of time to resolve issues, 3) you cannot over plan, 4) consider a long-term business plan of 10 to 20 years, 5) returns may be based on the PPAs, 6) develop personal relationships, 7) beware of agents, 8) don't change the rules and 9) site selection. The group continued the discussion about long term investment models and how they vary from the concerns of most venture capitalists looking for a 3 to 5 year return. The group reconfirmed that transport fees are always an issue.

POWER Website Update (*Zach Pogue - ECoRE Ventures*):

Zach Pogue introduced a new website he is developing to assist with building sustainable communities and mixed use environments. He acknowledged that data gathering is a challenge but that the goal of such a website would be to help make good business decisions more rapidly. Data mapping is needed in the areas of: food waste, yard waste, other organics and tipping fees. Currently there are several data repositories available but the existing repositories may be too expensive or not quite robust enough. The goal is to develop a prototype for this website by the next POWER meeting on October 6, 2011. The discussion that followed included the possibility of using Geographic Information Systems (GIS).

Meeting Closure (*Holly Elmore - Ei*):

Holly closed the meeting at 5:30pm. Question/Answers continued at an informal reception with food provided by *Bold American Catering*. **Special thanks to HLB Gross Collins for hosting the meeting.**