



CITY OF TACOMA SUSTAINABLE TACOMA COMMISSION MEETING NOTES

DATE: May 10, 2011

COMMISSION MEMBERS PRESENT: Jane Moore, Bliss Moore, Dale Anderson, Phil Coughlan, Jim Gawel, Dan Dzyacky, Elaine Ott

COMMISSION MEMBERS EXCUSED: Steve Garrett, Bill Anderson

OTHERS PRESENT: Michael P. Slevin III, Pam Randolph, Jetta Antonakos, Kristi Lynett, Lisa Rennie, Carol Shiflett, Ellen Moore, Jackie Yerby, Geoffrey Smyth, Jessica Ludwig, Monty Smith, Catherine Taylor

▪ **Approval of the March 8, 2011 Meeting Notes**

The March 8, 2011 meeting notes were approved and adopted.

▪ **Review of the May Agenda**

The May agenda was approved.

▪ **Waste-to-Energy Project Analysis**

- The City of Tacoma, Public Works Department, Environmental Services group controls all of the environmental service utilities (Solid Waste, Wastewater, and Surface Water). This provides for great opportunities with regards to cross-fertilization of sustainable initiatives and projects. The Waste-to-Energy Project is one of those opportunities.
- The City has a food waste program they want to initiate within their solid waste program which is directly related to the fact of getting a 70% diversion by 2030 (2% or 5K tons per year diversion increase in waste diversion to the landfill). The City recently completed a large comprehensive study on their waste stream and what it is composed of and have a fairly good capture rate of normal recycle items compared to peer city's and nationwide. However, there is room for improvement as normal recycling items (cardboard, plastic jugs, aluminum cans, etc.) will not allow the City to get to 70% diversion. Food waste will give the City their biggest ability to help reach that \$5K tons per year reduction.
- Food waste is undigested. If the City were to digest food waste through their Central Treatment Plant 1) it would not be going to the landfill, 2) there would be the ability to increase the gas curve – having a biomethane that can be utilized for fuel. If garbage trucks were acquired that work on biomethane instead of diesel, the City would be sustainable by using a locally-produced fuel from their own plant. The remaining product that is not gasified then also helps with the TAGRO product. So the City would have full beneficial use of food waste through the digestion process. Specifically, the food waste products would come from the commercial food waste program - foods that cannot be converted to a higher/better need (food banks, day old bread, etc.).
- Environmental/energy drivers
 - Long-term sustainable operation
 - Reduced energy purchase (less diesel costs, help stabilize solid waste rates)

- Carbon emissions reduction goals
- Energy independence (fuel price spikes, etc.)
- Renewable energy credits
- Other beneficial uses – increased biosolids, byproducts, etc.
- When the City began looking at a waste-to-energy program, it was realized they use some of the gas to fuel the boiler system, however, the boilers do not use all of the gas. There is an excess amount of gas that is burned-off daily. What can the City do with the wasted gas? How could they use it for a more beneficial outcome? The best way would be to import food waste.
- Primary results initial analysis of co-digestion at the Central Treatment Plant
 - Significant capital cost for receiving station was not offset
 - Less infrastructure intensive systems limits the material that could be accepted
 - Bottom line recommendation: Increase the capacity of the digestion system
- Initially, the City evaluated the potential of liquid food waste to produce energy
 - Sludge only – about 15% capacity the way the digestion process is operated today
 - Fats, oils and greases – costly to bring into the treatment plant
 - Birdseye (DAF and Tallow) – concerned about using only one source of food waste
 - Staff decided it was necessary to unlock the digester capacity.
- Expanding the scope impacts the economics
 - Landfill closure
 - Haul distance
 - City of Tacoma Landfill: 5.6 miles
 - 304th Street Landfill: 29.8 miles
 - Cedar Hills Landfill: 31.4 miles
 - Arlington Landfill: 274 miles
 - Average tipping fee is about \$32 per ton; transport costs are between \$10 - \$12 per ton
- Biogas – Summary of Analysis (Best Alternative)
 - 50 CNG refuse haulers, time-fill and fast-fill stations
 - Capital costs: \$18,900,000
 - 20 year-NPV: (\$5,700,000)
 - Carbon emissions reduction: 8,400 tonne-CO₂/year
- Elements of the program that can drive cost and environmental benefits from:
 - **Solid Waste perspective**
 - Education and collection system
 - Truck routing and configuration
 - Number of new truck purchases
 - Timing
 - Driver needs
 - Reduced long-hauling distance
 - Diesel fuel costs, spikes
 - Carbon footprint reduction
 - Back hauling of recyclables
 - Available CNG technologies
 - **Food waste preprocessing perspective**
 - Facility citing
 - Ideally near CTP; odors, traffic concerns
 - Technology
 - Others out there have been tried (many in Europe)
 - Custom system?
 - Be the first in using one of the North American technologies?
 - Special financing?
 - Incentives
 - Public private partnerships
 - Look at surrounding communities
 - **Wastewater perspective**
 - Digestion process
 - How to use 100% vs. 85% of capacity
 - What special equipment is needed?
 - TAGRO – maintain Class A status

- Energy conservation in digestion
 - Is there cost effective means of conserving biogas?
 - Reduce electrical demand
- Awareness of nutrient recycle treatment
- What carbon footprint changes might there be to the treatment plant facility?

Biogas perspective (biomethane production)

- Energy rate validation - escalation of costs
- Natural gas or CNG fleet
- Cogeneration – take another look?
- Incentives
- Carbon foot printing - building another facility?
- Next steps
Staff is in the process of answering a lot of the questions brought up by the study. Once the City finds funding and determines when and how this makes the most sense to implement, they can then proceed to apply for the grant products, start the designs and implementation.

■ **Residential Waste Collection Plans**

- Solid Waste Utility organizational transformation
The utility is going from a municipal solid waste collector to a materials handling company, based on:
 - City manager goals; City Council direction
 - Climate Action Plan
 - Solid Waste Management Plan; and the
 - Need for sustainable systems

Change in key metrics

 - Tons disposed vs. tons recovered
 - Pounds per day/per person disposed (training customers on recycling and how best to do things)
- Investments in sustainability
Long-term investments
 - Recovery and Transfer Center (Construction underway on a \$24M transfer station)
 - Waste Characterization Study – will be doing more in the future
 - New recovery programs

Future investments

 - Going over the current and evolving strategies, and the evolution of waste handling
- Current strategies
 - Commercial and residential food waste pilot
 - Enhance recycling programs
 - Education/marketing efforts
 - Volume-based rates
 - Resume business audits to increase commercial recycling
 - Increase commercial recycling routes, as needed
 - Styrofoam recycling
 - Construction and demolition waste policies and marketing
 - Implement new Washington Administrative Code standards
 - Increase outreach/marketing efforts
- Evolving strategies
 - Bagsters – small disposable bags for residential customer use; may be picked-up at landfill
 - Reduced rates for source-separated material
 - Product and packaging stewardship
- Long-term evolution
 - The City must stay current on alternative disposal and processing technologies.
- **Every Other Week (EOW) Yard/Food Pilot Program**
The City will be conducting a pilot program (“rich collection”). With every other week pick-up, there will be one route each in the north end and the south end for this six-month study; with first collection July 27. At the same time, there will be residential food waste collection in those

same two areas. The hope is by January 2012, the City would have food waste placed into yard waste containers as a regular matter of course.

Why the pilot?

- Convenient to include with EOW; reduces waste
- Customer issues can be identified
- Health department can observe success or problems
- Allows for more realistic expectation for diversion estimates

Goal/EOW

- Reduce waste
- Determine customer readiness
- Measure participation
- Look for notable increase/decrease
- Confirm EOW food/yard waste collection works for customers/health dept.

Acceptable food scraps

- Fruit, vegetables, grains, bread, pasta, eggshells, coffee grounds, teabags, cooked foods. No compostables.

Education key points

- Utilize existing yard waste cart and collection schedule
- Reduces waste in garbage cans and landfill
- Kitchen pails will be given to each household to include instruction flyer, photos, tips and list of acceptable items
- No additional charge to customer!

Potential capture rate

- Conservative estimate: 10 lbs/week for participating households
- Estimate 17+ tons by end of pilot

Timeline

- June – Begin every other week (EOW) publicity
- July 9 – Kitchen pail delivery
- July 27 – First collection
- February – Customer surveys will go out to households for their evaluation of the pilot
- Prior to implementing the program Citywide, staff will identify any issues to improve upon; publicize November/ December; program launch January 2012. (Existing yard waste routes will be utilized).

▪ **Review of Draft Sustainable and Healthy Food Policy Recommendations**

The next resolution recommendation to City Council will be on a healthy and sustainable food system. After much discussion over the past few months, the Sustainable and Healthy Food Policy is the first step for getting the awareness of food or health in City government, which is normally not thought about. A task force made up of City staff, Commission members and other stakeholders, came together to develop this draft version of the policy. Following today's open discussion and comments amongst the Commission, the draft policy will go back to the task force for input. Members were encouraged to provide additional written comments to City staff by May 12, which will then be submitted for review at the next stakeholder's meeting.

▪ **Updates from Commission Subcommittees**

• **Energy - Home Energy Audits**

Dale and Elaine shared their separate findings after conducting extensive research to locate potential vendors who may be interested in doing home energy audits. Ideas: 1) target the \$250-\$300 range, much like a home appraisal, by way of tapping into the local market with real estate agents; 2) utilize software applications to do full-house surveys computing the findings in-office; 3) work with lending institutions (appraisers) to do an incentive-based home energy program; 4) educate the public about energy efficiencies; doing through the neighborhood councils; putting together a residential environmental community resource guide for realtors and the community at large. Another subcommittee meeting will be scheduled on this topic.

- Land Use and Transportation
 - UWT students were required to take on a project doing a public service announcement video and suggested something on anti-idling would be a good topic. Students met last week with the Transportation subcommittee and are moving forward.
 - New City Planner, Chelsea Levy, is being tasked to look at some of the City's parking minimums and maximums.
 - Pierce Transit - Moving forward with the 35% reduction; there will be a 20% reduction on June 12. What will be discussed for the next round of reduction is the "efficiency model," whereby the service and the span/amount of service are going to be predicated around ridership.
 - Moving open space and urban forestry to the Environmental Services utility; being able to increase rates to more fully fund those two programs. One of the next steps is a subcommittee meeting to bring forward some policy recommendations to EPW (July); if supported by EPW, it would allow more staff time to develop an ordinance to be in place by January 2012.
- Subcommittee Meetings

A request was made for meeting invites to be sent to *all* STC members for each of the four subcommittees. Each subcommittee will meet once prior to the June 14 meeting.

▪ **Staff Report**

- The City is starting Energy Services Performance Contracts – conducting energy audits at all City facilities with McKinstry; staff will be looking for bonding capacity to fund the projects based on a 10-year efficiency payback; McKinstry will be doing investment grade audits.
- Clean Air Task Force – looking at the woodsmoke issues in the county; trying to come up with some potential measures that will help to reach attainment. Mr. Fey is the City's official representative.
- Urban forestry banners – Posters and T-shirts are now for sale.
- Pierce County Sustainability Manager, Ryan Dicks, is thinking of doing a Letter to the Editor on why the TNT does not publish enough 'good news' on environmental stories. Would the Commission like to co-author this letter?
- Suggested topics for June 14 meeting: Subcommittee updates; Pacific Avenue beautification project

▪ **Public Comment**

There was no public comment.

The next meeting of the Sustainable Tacoma Commission will be Tuesday, June 14, 2011, 3:30 p.m. to 5:30 p.m., Tacoma Municipal Building North, 733 Market Street, Room 16.