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April 21, 2016

Department of Energy and Environmental Protection
Attn. Lee Sawyer, MMCA
79 Elm Street
Hartford, CT 06106

RE: 2016 Draft Comprehensive Materials Management Strategy (CMMS)

Dear Mr. Sawyer:

Thank you for inviting public comment to the draft CMMS that is currently under consideration by the Department of Energy and Environmental Protection.

As you know, Willimantic Waste Paper Co., Inc. and the DeVivo family have long been involved in Connecticut's recycling efforts, starting some 75 years ago, well before these efforts were first mandated. Today we have a team of 275 employees who provide recycling services throughout Connecticut. As we continue to grow and work with the State in expanding these services, we have suggestions for revisions to the Plan that we feel would assist our joint efforts. These suggestions fall under three broad categories, as follows:

- Enhanced utilization of existing private recycling facilities and expansion of existing privately-managed recycling programs
- Expansion and development of new markets for recovered materials and increased efforts for the removal of non-marketable materials from the waste stream
- Recognition of the efficiency of existing technologies and infrastructure in achieving the State's goals, rather than mandating burdensome and potentially disruptive new programs.

We will address each of these categories in turn.

Enhanced utilization of existing private recycling facilities and expansion of existing privately-managed recycling programs

The draft plan contains few references to the important work and the critical role of private industry in both current and future recycling efforts. Private industry has long been a partner with the State in these efforts, and the Plan should contain efforts for continuing that partnership. Specifically, incentivizing new investments in plants and equipment (for example through tax incentives), removing burdensome operational regulations that often have little impact on recycling (such as requiring permits for purchases of capital equipment), and ensuring that MIRA and Green Bank focus not only on state programs, but also broaden their efforts to assisting private facilities.
Additionally, we are concerned that the draft plan calls for implementation of new policies to increase source separation, such as source separation of construction and demolition debris at job sites. The inefficiency and expense of separating debris at job sites not only pose additional obstacles for much-needed development, but also fail to recognize that private industry already has the technology and equipment to perform such separation at existing facilities. Rather than multiplying the individual sites

where separation occurs, we encourage the State to incentivize improvements and expansions at already operating facilities, where separation can occur with maximum efficiency and proper oversight.

Expansion and development of new markets for recovered materials and increased efforts for the removal of non-marketable materials from the waste stream

Throughout the draft plan, "reuse" is cited as an important component of efforts to achieve the State's goals. While we agree encouraging reuse is important, equally as important, and perhaps even more impactful, is the development of new markets for materials that are recovered from the waste stream. Without a market, the motivation for recovery of materials will dwindle. Requiring plastic bags and other consumables to be made from recycled materials (currently before the Legislature) is but one example of how the State can help sustain markets for recovered materials. The State also has a role in developing brand-new markets. DEEP is aware of the difficulties we encounter with recovering asphalt shingles, as currently there is little, if any, market for them. The State should renew its efforts to allow such a market to develop, thereby ensuring recovery efforts can be sustained. Used tires also are an ongoing concern, and sponsoring research that leads toward a market for recycled rubber can have a major impact on recycling rates. As a corollary to these efforts, the removal of non-marketable materials from the waste stream should be an important focus of the plan. Efforts to expand the bottle bill, for example, will help to remove non-marketable glass from the waste stream. .

Recognition of the efficiency of existing technologies and infrastructure in improving opportunities for increased diversion, rather than mandating burdensome and potentially disruptive new programs.

The draft Plan, in several areas, indicates an intention to move toward Extended Producer Responsibility (EPR) programs. These programs take many forms and can be targeted to address many different components of the waste stream. We support efforts to develop EPR programs targeted toward those items that currently are hard-to-recycle. Existing programs involving paints, electronics and mattresses are examples of this. However, EPR programs directed at items which currently are readily recyclable, such as paper and packaging, are of concern to us. For consumers, these programs are burdensome and potentially quite expensive. For manufacturers, these programs are equally as expensive and will require potentially disruptive re-designs of manufacturing processes. These items which are readily removed from the waste stream and recycled need not be subjected to product stewardship programs. For these items, EPR would replace the efficiency of private industry and its successful recycling efforts with a disparate, expensive and burdensome system of consumer and manufacturer mandates.

Again, thank you for inviting comment to the draft Plan and we appreciate your willingness to listen. We are encouraged by the Plan's specific and action-oriented approach and we look forward to working with DEEP to achieve its goals.

Very truly yours,

Thomas DeVivo

Timothy DeVivo

Comments of

WINTERS BROS.
WASTE SYSTEMS

on the

Comprehensive Materials Management Strategy (CMMS)
Draft 2016 State-wide Waste Plan Update

Submitted to the
Connecticut Department of Energy & Environmental Protection

April 13, 2016

Introduction

Winters Bros. supports the State's efforts to develop a long-range solid waste management plan. In concept, we believe that solid waste management planning efforts should be market-based and allow for flexibility to adjust to changing conditions over time. We also believe the plan should set realistic expectations and push ALL stakeholders to create the most cost-effective and environmentally sound solutions for the management of society's wastes.

Further, we stress that the management of solid waste is a shared responsibility involving a host of stakeholders including:

- Waste Generators
- Service Providers (Waste collection firms)
- Recyclers
- Regulators
- Legislatures (Local, State and Federal)
- Local Government Officials
- Manufacturers
- Developers

About Us - Winters Bros. Waste Systems

Winters Bros. Waste Systems is one of the premier solid waste and recycling companies in Connecticut. We employee about 500 people, operate more than 300 waste and recycling collection vehicles and own 12 solid waste and recycling centers. Our service area is primarily southwest Connecticut with major hubs in Danbury, Stamford and Shelton. We also have operations in the Lower Hudson Valley and on Long Island.

As a company, we have invested millions of dollars in the creation and strengthening of the solid waste and recycling infrastructure within the State. We have developed transfer stations, C&D recycling centers and one of the State's largest Single Stream recycling facility in Shelton.

While Winters Bros. believes that good planning will help manage materials better (i.e., more efficient, more cost effective, more environmentally friendly), we are mindful that that the investments that companies and municipalities have made in the solid waste infrastructure needs to be promoted and protected. As a company we know that a wholistic approach of waste reduction, reuse, recycling, and proper disposal is necessary to properly manage society's waste. The more options and the more flexibility we have, the better the chances to achieve the State's recycling and waste reduction goals and the successful management of solid waste.

Comments on the State's Comprehensive Materials Management Strategy

Comment #1: The State should increase its efforts to develop markets for recyclables.

If the State wants to encourage the development of a strong solid waste and recycling program, the DEEP should enhance its efforts to develop markets for recyclable materials. Some of the opportunities for the State to promote more waste reduction and increase recycling would include:

1. Requiring the State of Connecticut's procurement program to purchase goods (such as paper) with a high recycling content.
2. Work to create markets for hard to recycle items such as glass.
3. Require DOT to mandate the use of a recycled content in roadway base materials.
4. Require newspapers published and sold in the State to be printed on recycled paper.
5. Require durable goods sold in the State to be manufactured with at least 20 percent recycled material and increase that amount over time.
6. Expand and increase the effectiveness of the State's mandatory bottle bill to include more glass containers and increase the deposit to $0.25 per container to drive the recovery of glass.
7. Using excess monies from the bottle bill to establish a grant program for new equipment to improve the recovery of recyclables.
8. Create tax incentives for the purchase of recycling equipment to that allow for the recovery of more recyclables.

Comment #2: The State should work to maintain current disposal options for waste that has no economic or redeeming value.

Despite society's best efforts to reduce, reuse and recycle, there will ALWAYS be some amount of waste that is left over that simply has no economic value and needs to be discarded. The State should ensure that ample outlets exist for waste materials and not limit options for disposing of waste that cannot be reduced, reused or recycled. The goal should be to ensure that municipalities and commercial establishments have an access to environmentally sound and cost-effective outlets for waste including local transfer stations, Waste-to-Energy plants and out-of-state Subtitle D landfills. This is especially important for municipalities and Solid Waste Districts within the State that do not have burn-plants in their area and instead rely on out-of-state facilities for the disposal of waste.

Market conditions should dictate the movement of waste. Municipalities, small businesses and tax payers should not shoulder the burden of high priced incineration. Allowing the market to work will ensure that municipalities and businesses do not fall prey to monopolistic strongholds that incinerators can create in a market area.

Comment #3: The state should promote and protect the investment that developers and municipalities have made to create the infrastructure for recycling.

Winters Bros and other companies use a variety of tools and systems to recover and process recyclables. We continually invest and work to improve this infrastructure. The investment is significant and we need the State to protect, support and advance the development of this infrastructure.

Winters Bros. and other developers want and need some assurances that our investments in the development of a working infrastructure are safe. We invested a considerable amount of money and time developing an infrastructure that works. We created a lot of jobs.

We are willing to continue to invest in the State of Connecticut, create jobs and allow for recyclables to be recovered and processed. However, making a significant investment is less likely without support from the State. Importantly, we are moving forward with advanced recovery efforts designed to liberate even more recyclables from the waste stream. Technological advancements in processing equipment allow us to reclaim materials that generators either did not recycle or mistakenly put into the wrong container. Even where established and successful recycling programs exist, we continue to see too many recyclables in the waste stream. We desire to go after these recyclables in a last ditch effort to recover materials before they are discarded at an incinerator or landfill. Legislative and regulatory support is requested to encourage this aggressive approach to materials recover after other efforts to segregate and recover recyclables have failed to get material out of the waste stream. We already apply this approach to Construction and Demolition Waste and strongly believe that it can be applicable to municipal solid waste.

Comment #4: The State should focus on proven technology and carefully review alternative technology.

The draft Comprehensive Materials Management Strategy (solid waste plan) discusses the development of new technology to manage solid waste without identifying what exactly this "new technology" is. We understand that the plan is a fluid and living document that can be changed as technology advances and develops. However, pushing alternative technology without knowing the cost of the technology is not fiscally responsible and potentially damaging to local municipalities and solid waste districts. We urge the State to be careful, as you evaluate alternative technologies.

As members of the solid waste and recycling industry, we are the practitioners who are working daily in the real world of Connecticut's recycling and solid waste program. We want to see both a cost-effective and environmentally sound solutions for the management of solid waste and recyclables.

Planning for and the actual management of solid waste are crucial processes. Mistakes in the management of solid waste will result in the waste of taxpayer dollars and a potential public

health threat. A fatally flaw in a project can lead to wide-spread disruptions that could set the State's current recycling and waste system back 20 years.

Comment #5: Study and report on the economic impacts of the Comprehensive Materials Management Strategy.

The cost associated with solid waste management need to be calculated and considered in the planning process. Questions that need to be addressed include:

1. How much is this going to cost municipalities?
2. How much is this going to cost each resident?
3. How much more will contractors need to pay to get rid of construction waste?
4. How much is this going to cost product manufacturers and therefore raise the cost of products or services within Connecticut?
5. How will higher costs in Connecticut affect boarder areas where people will buy goods and services in other States?
6. How much will waste disposal with alternative technology cost?

We are greatly concerned about the cost of solid waste management and recycling services. The cost will ultimately be borne by taxpayers and businesses with small business being especially susceptible. We need to ensure that recycling and solid waste goals are met in the most cost effective manner possible without creating economic hardships on municipalities or business.

Comment #5: The State should study, calculate and report on the environmental impact of the Comprehensive Materials Management Strategy.

In addition to the economic costs, the State needs to understand the environmental costs associated with the plan. Specifically, what is the carbon footprint associated with some of the initiatives in the plan?

The State should also support the development of rail transportation as one of the highest and best ways to move volumes of material to distant out-of-state landfills and recycling centers. In today's market, manufacturing facilities that need recyclables as a raw material may be located in the Midwest or in the Deep South. Similarly, environmentally sound disposal sites may exist in distant locations and have rail spurs that allow waste to be shipped directly to the site. Rail transportation is more environmentally friendly than truck traffic. The down side is that rail operations require a significant capital investment. Support from the State, local solid waste districts and local governments is needed to increase rail movements of wastes and recyclables and encourage the development of intermodal operations which are cost effective and environmentally sound.

Comment #6: The State needs to account for the changes in the ton of waste that is at the curb or in the container.

> The composition of solid waste is changing. We call this the "evolving ton." Simply stated, the waste stream is changing over time. For example, containers have become lighter, newspapers have become thinner, cardboard is more prevalent in the residential waste stream. The State must understand that measuring recycling and recovery efforts by the ton may not account for all of society's efforts to recover and recycle solid waste and may be misleading.

In conclusion, Winters Bros. Waste Systems appreciates the efforts of the DEEP and the State of Connecticut to address the long-term management of solid waste. We look forward to a broad, ongoing public dialogue on life-cycle materials management. We know that government alone cannot bring about the shift to reduce, reuse and recover more materials from the waste stream. We encourage DEEP to convene multi-stakeholder dialogues on materials management to create public awareness of the environmental consequences of material and product choices. We realize that this may require efforts beyond Connecticut and might involve a national dialog. That said, Winters Bros. is fully committed to advancements in waste management, recovery of more recyclables, better processing of materials and engagement in the discussion with DEEP and stakeholders as we will provide a realistic view and insight to the future of solid waste management.

Respectfully submitted,

WINTERS BROS.
WASTE SYSTEMS

Comments of

WINTERS BROS.
WASTE SYSTEMS

on the

Comprehensive Materials Management Strategy (CMMS)
Draft 2016 State-wide Waste Plan Update

as it relates to alternative technology

Submitted to the
Connecticut Department of Energy
and
Environmental Protection

April 13, 2016

Introduction

Planning for the long term management of solid waste is a valuable endeavor and we applaud the State and the Commissioner of the DEEP for their efforts.

Our goal in providing this particular testimony is to examine alternative technology discussed in the plan with a specific desire to ensure that alternative technologies are being properly vetted and evaluated.

This is important to us as an industry because we have to live with decisions and direction that could greatly affect the economic and environmental impacts of managing solid waste and recyclables.

Evaluation of Alternative Technologies

From time to time, developers will propose "new technology" for the disposal of municipal solid waste. A variety of options are commonly mentioned including plasma arc gasification, syngas (synthesis gas), bio fuel digesters, etc…

As a company in the solid waste and recycling sector, we carefully monitor evolving technology. We routinely evaluate technology and offer a standard evaluation process which is outlined below. Municipalities, solid waste planning districts, and local and State agencies should be cautious and be prepared to examine some very basic facts surrounding any proposed project.

A recommended approach for any community looking at advanced waste conversion technologies is to simply assess the environmental, technical and economic (commercial viability) challenges associated with the purpose emerging technologies.

Because many technologies have not gone beyond the drawing board, the laboratory, or small pilot scale (i.e., they are not yet a continuous commercial scale operation), communities and solid waste districts and authorities need to be very cautious in selecting a long term solution.

Significant problems such as complete failure (economically and environmentally), explosions, excessive air emissions, reliability, excessive corrosion, discharges of contaminated liquids, etc., can develop.

The outline that follows will aid regulators, solid waste planners, boards, authorities and elected officials in the review of alternative technology.

Assessment Approach

1. **Consider all of the risks prior to making any long-term commitments, e.g.,:**
    a. Environmental Performance and Impacts (Air Emissions, Wastewater, Residue)
    b. Long-term Durability & Reliability (Warranties and Performance Guarantees, Performance Bonds)
    c. Financial Resources of Developer AND Guarantors

d. Operating Experience of Developer with Technology or Municipal Solid Waste
e. Commercial Scale Up
f. Utility Interconnect Costs and Electric Power Purchase

2. **Review Previous Studies and Articles**:
   a. CalRecycle – http://www.calrecycle.ca.gov/Organics/Conversion
   b. Global Alliance for Incinerator Alternatives – http://www.no-burn.org/article.php?id=731
   c. Waste to Energy Article (GBB Waste Advantage Magazine): http://www.gbbinc.com/media_publications/WasteAdvantage-Dec2010-Gershman.pdf Attached above
   d. LA County – http://ladpw.org/epd/tf/conv_tech.cfm
   e. NYC EDC/DOS – http://www.nyc.gov/html/dsny/downloads/pdf/swmp_implement/otherinit/wmtech/phase2.pdf
   f. King County, WA – http://your.kingcounty.gov/solidwaste/about/planning/documents-planning.asp
   g. City/County of Santa Barbara, CA – http://www.conversiontechnologystudy.com
3. **Establish a fair evaluation process for consideration of such technologies** (note there are estimates of more than 500 companies developing in this space today). An example process could be as follows:
   a. Step 1 - Form a professional/technical committee to examine proposal and proposer in detail and compare that to community goals. Get qualified people (engineers, scientists, financial experts, waste industry experts, etc.…) to aid in the review.
   b. Step 2 - Have vendor submit, in confidence, a technology plan detailing a technical design components, environmental impacts and necessary permits and authorizations. Have the plan reviewed by an independent engineering firm. (Note: The vendor should pay for this independent verification of their technology. It is likely that the Vendor will need this for financing purposes.)
   c. Step 3 - Have vendor submit, in confidence, a business/financing plan detailing all revenue, operating and financing costs associated with their recommended system. Have this plan reviewed by and independent accounting firm. (Again with cost paid for by the vendor.)
   d. Step 4 - Have professional/technical committee review the plans and comments from the engineering and accounting firm and make recommendations.

For the evaluation process, a sample questionnaire should include:

1. **Company General Info**
   a. The correct legal name of applicant, together with its mailing address and telephone number.

b. The name, address, e-mail address, and telephone number of the individual who will be familiar with, and responsible for, the application.
c. The State in which the applicant was incorporated or organized, and whether it is qualified to do business in the state where a project is proposed.
d. Provide description of applicant ownership structure and any parent corporations that may be proposed as guarantors of participating subsidiaries and/or other projects.
e. Provide annual report for most recent fiscal year and the number of persons currently employed.

2. **Project General** - Describe the proposed project including any innovative technology and all relevant sub-systems and how the project or technology would work including, as applicable, receipt of waste, preprocessing (e.g., feedstock preparation), diversion (e.g., recycling), waste conversion, post-processing (e.g., syngas cleaning), residue management and product(s) distribution ("Project"). Also complete the following:

   a. Environmental Performance – Describe projected Project environmental performance to include the quantity and quality of air emissions (NO_x, CO, PM, VOCs, SO_x and Air Toxics, e.g., dioxins/furans, metals, HCL, H_2SO_4), wastewater, and residue or by-product production. Additionally, address other Project environmental performance issues such as surface water management, facility aesthetics, odors, traffic and noise. If available provide environmental performance data from existing commercial facilities or demonstration units. As applicable, provide Project mass, energy, and water balance information, showing the amount of solid waste diversion, products produced, residue, and environmental emissions.

   b. Products – Describe all products produced from the Project, including the type, quality and quantity, e.g., Syngas, Green Fuel (ethanol, biodiesel, CNG), Compost, Soil Amendment, Electricity, etc.

   c. Permitting or Licensing – Itemize the anticipated environmental, land use, and other permits, approvals, authorizations, and licenses applicable to the Project.

   d. Utility Requirements – List any critical utility requirements, i.e., electric, water, wastewater, or natural gas, necessary for the Project development, startup and on-going operation.

   e. Reliability – Demonstrate that the proposed technology associated with the Project is capable of operating for 20 years. Discuss design and construction standards and materials, and routine, preventative, and predictive maintenance practices, and redundancy of design

3. **Experience** – Please provide Project team's experience in the development, design, construction, operation, and finance of similar projects or technologies. Include resumes of key individuals and project participants.

4. **Economic Feasibility** – Demonstrate that the project is financially stable. Provide pro forma operating statements to include:
    a. Capital Costs - Provide a breakdown of capital costs including: permitting, design, construction, operating equipment, environmental control systems
    b. Operating Costs - Provide a breakdown of operating costs including: labor, residuals disposal, utilities, chemicals, maintenance and repair, capital repair and replacement and other costs
    c. Product(s) Revenue - Provide a listing of all potential products, e.g., electricity, fuel products, commodities, and expected revenue by product on a total and per unit price basis. As appropriate identify end market (marketability) for all product(s) and any distribution barriers, e.g., utility interconnect, access to a refinery, etc. Note if there is a product distribution barrier please describe how it will be addressed.
    d. Other Revenue and Incentives - Provide a per unit tipping fee cost estimate for the solid waste to be processed by Project and other sources of cash/revenue to include, selling environmental attributes, e.g., carbon offsets, state or federal rebates, and investment, production or income tax credits.
    e. Financing Costs - Describe the availability of any funding sources (e.g., grants, loan guarantees) and how such funds would be pursued and the potential impact of such funds on the planning, development and operation of Project
    f. City or vendor Participation – Outline any obligations expected from City (or current vendor) and included in the Project pro forma operating statements, e.g., land & land use, tipping fees, equity participation, etc.

5. **Project Finance** - Provide a preliminary Project financing plan that reasonably demonstrates that the Project team can secure financing for Project development, construction and operation or describe the expected nature of the financing transaction between the applicant and City and or current vendor.

6. **References** - Has the proposed innovative technology (ies) and each sub-system associated the Project been demonstrated to perform continuously for a period of six (6) months? If so provide references for up to three similar projects. References should include the following info:
    a. Name and location
    b. Owner/Operator
    c. Process and Technology Description
    d. Feedstock Quantity and Quality and facility throughput
    e. Start-up date
    f. Capital Cost
    g. Annual operation and maintenance cost

h. Area of facility, acres
i. Types/quantities of products and by-products produced
j. Environmental Performance Data
k. Photos of the facility
l. Current Project Status

Conclusions

As members of the solid waste and recycling industry, we are the practitioners who are working daily in the real world of Connecticut's recycling and solid waste program. We want to see both a cost-effective and environmentally sound solutions for the management of solid waste and recyclables.

Planning for and the actual management of solid waste are crucial processes. Mistakes in the management of solid waste will result in the waste of taxpayer dollars and a potential public health threat. A fatally flaw in a project can lead to wide-spread disruptions that could set the State's current recycling and waste system back 20 years.

The wrong selection of a "process" could put the State's currently environmentally infrastructure that services the citizens, communities and businesses of the State daily at grave risk.