

Sacyr Environment Response to CCSMM Public Engagement

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To: DEEP RecyclingProgram

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Hello,

We are happy to provide you responses to CCSMM's Public Engagement. We understand CCSMM is made up of 74 municipalities within the state of Connecticut forming this coalition to take on initiatives to increase diversion, and we believe if all the municipalities within the coalition implement the same diversion practices together, real impact will be seen. Our approach can be modified accordingly on importance to DEEP and the overall coalition. We look forward to continued engagement with DEEP and finding solutions for sustainability and waste management within the state.

Sincerely,

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CCSMM

**CT Coalition for Sustainable
Materials Management**

Sacyr Response
to Request for
Comment and
Solutions to
CCSMM

Introduction

- To best assist CCSMM with its mission to manage all waste within the region, we must look at the state-wide amount of waste and look for best solutions for management.
- The proposed solution in this response is only an example. Sacyr's experience allows us to provide different solutions for desired outcomes.
- With over 30 years experience in supporting public agencies meet their goals, and having served over 5 million customers worldwide, Sacyr is an ideal partner to find the best solutions for CCSMM.
- The more municipalities joining to implement diversion programs the larger impact the state of CT will have.

Introduction: Phased Approach

- The best way to increase the diversion for CCSMM is to allow for a phased approach.
- Phase 1:
 - Mechanical Treatment: Increase the recyclables and metals from the MSW
 - Organic Collection: Build the infrastructure to enable a Source Separated Organic (SSO) collection region wide and create RNG and compost byproducts
 - C&D: Keep the C&D within the region and capture the materials and avoid landfilling these items
 - Wood: Recover up to 60% from MSW and C&D and look for market off-takers
- Phase 2:
 - Textiles and Glass: Increased diversion

Introduction: Waste Composition

- **Current:**

Mixed Waste 2,300,000 TPY	Single Stream 258,297 TPY	C&D 1,041,643
*Recycling Rate - 11.9%		

- **Phase 1**

Mixed Waste 1,885,770 TPY	Organics 396,750 TPY	Single Stream 258,297 TPY	C&D 843,210 TPY	Wood 215,913 TPY
*Recycling Rate - 31.3%				

- **Phase 2**

Mixed Waste 1,794,230 TPY	Textiles 85,100 TPY	Organics 396,750 TPY	Single Stream 222,394 TPY	Glass 42,403 TPY	C&D 843,210 TPY	Wood 215,913 TPY
*Recycling Rate – 40.5%						

(*) - percentage based on the recycled tonnage of plastics, paper, ferrous/non-ferrous package, glass, cardboard, wood, and other materials out of the global waste tonnage generated in CT

Question 1 – Different Models

Regions and cities across North America are releasing projects to remove organics and other potential commodities from their waste stream to extend the landfill lifecycle, support their sustainability goals, and encourage cooperation among citizens.

- Hennepin County, MN
 - In 2018 Hennepin County became the first county in the state to require businesses to recycle organic waste. Now the adjacent counties are starting to follow suit, referring to the latest RFP from Washington/Ramsey Recycling and Energy.
- Edmonton, Alberta, Canada
 - The City of Edmonton recently released an AD project to manage organics as they implement a Source Separated Organics collection system and estimate 60,000 to 100,000 TPY of Organics over the next 30 years.

Question 1 – Different Models

- Durham, Ontario, Canada
 - Partnering with a private entity to increase diversion and reduce waste being sent to the waste to energy facility.
 - The private entity will act as a partner that has the financial and industrial capability to properly support the government officials.
 - The project is to build a Mechanical Biological Treatment (MBT) facility to extract the organics from the MSW and implement a SSO collection program to manage organics from commercial and single-family homes.
 - The removal of commodities from the MSW through the MBT process will free up capacity at their Waste-to-Energy (WtE) facility and reduce the amount of waste going to landfill, increasing overall diversion.

Question 2 - Barriers

- Barriers that we see are not having a state-wide mandate on SSO collection programs, as well as creating a market for private developers to create organics management programs. Unless the state can control flow of organics and direct the stream to AD facilities, it will be difficult to attract the market.
- The programs must take on a state-wide basis in order to collect the stream needed for a successful project.

Question 3 - Benefits

- There are many environmental benefits to the diversion of organic and creating a commodity from the waste.
 - Reduces the amount of waste being shipped out of state
 - Less waste being sent to the WtE facility,
 - Creating RNG to power vehicles, such as the haulers trucks, or inject this RNG directly into the grid,
 - Help CT meet its sustainability goals by creating a renewable energy
- Costs will be offset by partaking in the RINs and RECs markets and the reduction of shipping waste out of state.
- Reduce the GHG footprint.

Question 4 – Presentation

- Yes, Sacyr would be interested in presenting our expertise in waste management programs to the Coalition; furthermore, Sacyr would encourage the Coalition to speak with Governments currently implementing or in process of implementing similar programs to manage their waste.
 - Durham Region, Ontario, Canada
 - Hennepin County, MN
 - Washginton/Ramsey, MN
 - City of Edmonton, Alberta, Canada
 - Kent County, MI

Question 5 – Sustainable Materials Mgmt

- The mentioned solutions are helpful and will surely set the stage for a procurement process for the development of anaerobic digestion facilities; additionally, DEEP also needs to implement a state-wide organics diversion program, trying to create in that way a welcoming market for the waste Industry.
- Sacyr knows of 4 Anaerobic Digestion projects that have been already approved and permitted; for the time being, only one facility has been built. This fact shows the Industry is interested in the CT market and probably, external factors to it, as difficulties in finding financial support are holding back many initiatives. DEEP needs to secure a stable legal framework on a long-term basis to host and attract conveniently all the stakeholders in the waste sector.

Question 5 – Sustainable Materials Mgmt

- Given the outstanding amount of C&D in the total MSW, both the State and different government agencies (city councils, consortia, etc.) should promote the partial substitution of aggregates in public works projects to create a market for the product.
- Mechanisms should be established discouraging waste from leaving the State - garbage tourism - understanding this can constitute a source of resources, economic activity, and job creation for CT. These mechanisms, if they were in the form of a "levy" for export, could be a source of necessary financing for the treatment facilities.

Question 6 – Additional Levers

- All the solutions and options proposed by DEEP and the Coalition are beneficial and will lead to an increase of diversion rates and a sustainable solution for CT's waste management.
- One area not listed is the option for final disposal. To some extent a final treatment will always be required.
- We do believe the WtE facility in Hartford is a key infrastructure for managing the waste in CT. The WtE facility, which already has a permit, allows CT to control the final destiny of its own waste, not being dependent on landfills outside of the state: in brief, CT can create a closed loop on its own waste, by using a thermal process, implementing feeding systems to the plant based on state of the art “Engineered Refuse Derivate Fuel” resulting in better thermal performance and less flue gas emissions.